

https://dspace.org/

Multiple Job Holding Among Public Sector Medical Doctors, Professional Nurses and Rehabilitation Therapists in Gauteng and Mpumalanga

Matiwane, Busisiwe Precious

2025

University of the Witwatersrand, Johannesburg

https://hdl.handle.net/10539/48392

Matiwane, Busisiwe Precious. (2024). Multiple Job Holding Among Public Sector Medical Doctors, Professional Nurses and Rehabilitation Therapists in Gauteng and Mpumalanga [PhD thesis, University of the Witwatersrand, Johannesburg]. WIReDSpace. https://hdl.handle.net/10539/48392

Downloaded from a DSpace repository. https://dspace.org/

MULTIPLE JOB HOLDING AMONG PUBLIC SECTOR MEDICAL DOCTORS, PROFESSIONAL NURSES AND REHABILITATION THERAPISTS IN GAUTENG AND MPUMALANGA

Busisiwe Precious Matiwane

Student number: 0302183J

Supervisors:

Professor Laetitia C. Rispel and Dr Duane Blaauw

A thesis completed by published work.

Submitted to the School of Public Health, Faculty of Health Sciences,

University of the Witwatersrand, Johannesburg, in fulfilment of the requirements for the degree of

Doctor of Philosophy

11 June 2025

DECLARATION

This thesis is submitted in the integrating narrative format, approved by the Faculty of Health Sciences, of published work.

I, Busisiwe Precious Matiwane, declare that this thesis is my original work. It is being submitted for the degree of Doctor of Philosophy at the University of the Witwatersrand, Johannesburg. This thesis has not been submitted before for any degree or examination at this or any other University. I am aware that plagiarism is wrong, and I confirm that this thesis is my own unaided work except where I have explicitly indicated otherwise. I have read the sections on referencing and plagiarism in the Wits Plagiarism Policy. I have followed the required conventions in referencing the thoughts and ideas of others. I understand that the University of the Witwatersrand may take disciplinary action against me, including suspension or permanent expulsion, if there is a belief that this is not my own unaided work or that I have failed to acknowledge the source of the ideas or words in my writing.

I acknowledge the use of Grammarly to assist with grammar and spelling checks in the process of writing this thesis. This tool was solely used for reviewing and enhancing the clarity and accuracy of the text.

Signature: 

11 June 2025

DEDICATION

This PhD is dedicated to my late great-grandmother, Mamokone Wilhelmina Matiwane and my late grandmother, Ndlelehle Johana Skhosana, for their endless love. My parents, Baleng Portia Matiwane and Mathulela Solomon Skhosana, for always supporting my dreams even when they did not understand them and for their unwavering love.

PRESENTATIONS ARISING FROM MY THESIS

1. Matiwane, B.P., Blaauw, D., and Rispel, L.C. Examining the extent, forms and factors influencing multiple job holding among medical doctors, professional nurses, and rehabilitation therapists in two South African provinces: a cross-sectional study. **Oral presentation at the Odi Hospital Research Day 7 September 2023.**
2. Matiwane, B.P., Blaauw, D., and Rispel, L.C. Comparing the extent, forms and predictors of multiple job holding among medical doctors, professional nurses, and rehabilitation therapists in two South African provinces: a cross-sectional study. **Poster presentation at the PHASA Conference – 10-13 September 2023.**
3. Matiwane, B.P., Blaauw, D., and Rispel, L.C. Comparing the extent, forms and predictors of multiple job holding among medical doctors, professional nurses, and rehabilitation therapists in two South African provinces: a cross-sectional study. **Oral presentation at the Wits School of Public Health Research Day and CARTA Conference 14-15 September 2023.**
4. Matiwane, B.P., Rispel, L.C and Blaauw, D. Preferences of public sector medical doctors, professional nurses and rehabilitation therapists for multiple job holding regulation: a discrete choice experiment. **Oral presentation at the CHP Health Systems Seminar - 29 November 2024.**

PUBLICATIONS ARISING FROM THIS THESIS

Published papers:

1. **Matiwane, B.P**., Blaauw, D., and Rispel, L.C. Examining the extent, forms and factors influencing multiple job holding among medical doctors, professional nurses, and rehabilitation therapists in two South African provinces: a cross-sectional study. BMJ Open. 2023 Dec 1;13(12): e078902. https://doi.org/10.1136/bmjopen-2023-078902.

2. **Matiwane, B.P.**, Rispel, L.C. and Blaauw, D. Preferences on multiple job holding among public sector medical doctors, professional nurses, and rehabilitation therapists in South Africa: A Discrete Choice Experiment. PLoS One 20(4): e0320854. https://doi.org/10.1371/journal.pone.0320854.

3. **Matiwane, B.P.**, Blaauw, D., and Rispel, L.C. Perspectives of doctors, nurses and rehabilitation therapists in Gauteng and Mpumalanga provinces' public hospitals on remunerative work outside of the public service. South African Medical Journal. SAMJ: South African Medical Journal. 2025 May;115(4):29-35. https://doi.org/10.7196/SAMJ.2025.v115i4.2653.

Planned submissions.

1. **Matiwane, B.P**., Blaauw, D., and Rispel, L.C. Exploring multiple job holding among medical doctors, professional nurses, and rehabilitation therapists in South Africa. Frontiers in Health Services.

2. **Matiwane, B.P**., Blaauw, D. and Rispel, L.C. The ambiguity of regulating multiple job holding in South Africa: stakeholder perspectives on the implementation of the Remunerative Work Outside the Public Service Policy. Health Policy and Planning.

ABSTRACT

Background

Multiple job holding (MJH), defined as public sector health professionals having a second job in the private sector, is a ubiquitous practice across health systems globally. In South Africa, MJH is legally permissible, albeit with clear stipulations in the Remunerative Work Outside the Public Service (RWOPS) policy. This PhD addresses knowledge gaps on the extent, forms and determinants of MJH among South Africa's public sector health professionals, their preferences for different MJH regulations, and the perspectives of stakeholders on the RWOPS policy.

Aim

The aim of the PhD study was to examine multiple job holding and its regulation among public-sector health professionals. The specific objectives of the study were to:

1. Explore the perspectives of stakeholders on the implementation of the RWOPS policy.
2. Explore the experiences of public sector medical doctors, professional nurses, and rehabilitation therapists concerning MJH.
3. Describe the extent of different forms of MJH among public sector health professionals.
4. Determine the factors influencing MJH among public sector health professionals.
5. Investigate the relative trade-offs between different incentives and restrictions to influence MJH in the public sector.

Methods

Between 2021 and 2022, a sequential mixed-methods study was conducted in 29 public sector hospitals in the Gauteng and Mpumalanga provinces of South Africa. Drawing on the health labour market approach, MJH framework, as well as labour, organisational, and regulatory compliance theories, the study consisted of three components: 33 key informant interviews; 30 in-depth interviews with health professionals; and a survey that incorporated a discrete choice experiment (DCE) involving 486 medical doctors, 571 professional nurses, and 340 rehabilitation therapists. Thematic analysis and MAXQDA PLUS 2022 were used for qualitative data analysis, while Stata® 17 was used for quantitative analysis.

Results

The MJH prevalence differed significantly across the three professions: 38.7% among rehabilitation therapists; 33.7% among medical doctors; and 8.6% among professional nurses. Across all professional groups, income supplementation was the primary driver for MJH, but secondary drivers included job variety and professional fulfilment. MJH was significantly more likely among medical specialists (OR 4.3, $p<0.001$), married professional nurses (OR 2.4, $p=0.022$) and male rehabilitation therapists (OR 2.4, $p=0.005$).

In the discrete choice experiment doctors, nurses, and rehabilitation therapists were strongly opposed to banning MJH, requiring salary increases of 45.7%, 20.0%, and 42.8%, respectively, to accept a ban. However, non-financial incentives were also influential, with doctors, nurses, and rehabilitation therapists willing to forgo 57.9%, 54.8%, and 38.9% of their salaries, respectively, for an improved clinical practice environment. An improved practice environment and facility management could improve public sector retention, even if MJH is prohibited.

Ambiguity about the RWOPS policy, initially adopted as a retention strategy in the public health sector, affects its compliance and management which varied in the two study provinces. Doctors (84.7%) and rehabilitation therapists (87.4%) were more likely to obtain RWOPS approval, compared to professional nurses (19.2%). However, health professionals generally supported the implementation of mandatory RWOPS approval, but this differed by category and engagement in MJH.

Conclusion

This PhD study advances the scientific discourse on the extent, forms, and drivers of MJH among public sector health professionals and provides novel insights into MJH regulatory preferences among health professionals. The high reported prevalence of MJH could adversely affect the care of public-sector patients. The ambiguity about the RWOPS policy influences its perceived legitimacy, compliance and enforcement. The DCE demonstrates the importance of positive practice environments and competent management for MJH mitigation. The study findings have global relevance but should inform the review and possible revision of existing MJH policies in South Africa.

ACKNOWLEDGEMENTS

Achieving this milestone would not have been possible without grace, love, support, and encouragement.

I would like to first, thank Yahweh, the all-knowing for His grace, redeeming love and infinite favour. Thank You, for provision, wisdom, courage and perseverance during my PhD journey.

To my supervisor, Prof Laetitia Rispel, I would like to express my heartfelt gratitude for giving me the opportunity to pursue my PhD and for your unwavering support throughout my PhD journey. Your mentorship has been an extraordinary blend of academic rigour and personal encouragement, challenging me to think critically and creatively while nurturing my professional growth. Your guidance, marked by both wit and compassion, has been a source of inspiration, helping me navigate complex challenges with clarity and purpose. I am especially grateful for your generosity in sharing your time and insights, which have not only shaped my research but also left a lasting impact on my character. Thank you for being a coach, mentor, and source of constant encouragement during this transformative journey.

To Dr Duane Blaauw, my second supervisor, I am deeply grateful for your invaluable guidance and support throughout my PhD journey. Your dedication to refining my statistical skills, pruning my work, and meticulously checking the finer details was instrumental in shaping the quality of my research. During moments of difficulty, your encouragement and steadfast commitment provided much-needed stability and motivation, allowing me to remain focused and committed to my PhD.

To my funders, I extend my heartfelt gratitude for their generous support. This research was funded by the South African Research Chair Initiative (SARChI) of the National Research Foundation (Grant #102219), held by Prof Laetitia Rispel. I also acknowledge the Wits Faculty of Health Sciences Research Committee Individual Research Grant 2021, which contributed R12,000 to the study. Additionally, I am grateful for the funding provided by Prof Laetitia Rispel, which supported my participation in the Discrete Choice Experiment training in Canada and covered the costs associated with presenting at the PHASA conference in Gqeberha. The views expressed in this research are those of the authors and do not reflect those of the funders.

My siblings for their love and support.

My covenant sisters Thembakazi Thutshini, Nandi Mathobela, Nozipho Maseko, Refilwe Maboke and Boammaruri Shabalala for words of encouragement, support, and unconditional love.

My friends Yandisa Ngqangashe and Mama Grace Ngundu, for encouraging me to take a leap of faith and apply for the PhD programme. Yandisa, thank you for your support, advice, and encouragement. My friend Sabelile Tenza, for being a constant pillar during this PhD journey.

The physiotherapy department at Witbank Hospital, a special thanks to Phumzile Mkhonza, Ivy Kekana, Zama Mbatha and Pamela Mampa, who were more excited than me about getting into the PhD programme and were already picturing my graduation in the red gown.

To all my participants who assisted with the piloting, the interviews and the survey for your participation and willingness. To all the hospital managers in Gauteng and Mpumalanga where I conducted my research, thank you for your assistance.

To my fieldworkers, Lindiwe Somwahla and Pako Papers, for their dedication, encouragement, and invaluable assistance during data collection

Lastly, I would like to thank the Head and staff of the Wits School of Public Health, and the SARChI Chair staff for their support and assistance. A special thanks to Mme Mapule, Mphidiseng Zwane, Ntate Lucky Moeng, Paul Bohloko, Gugulethu Mabena, Dr Daphney Conco and Losh Naidoo.

TABLE OF CONTENTS

DECLARATION i
DEDICATION ii
PRESENTATIONS ARISING FROM MY THESIS iii
PUBLICATIONS ARISING FROM THIS THESIS iv
ABSTRACT v
ACKNOWLEDGEMENTS vii
TABLE OF CONTENTS ix
LIST OF FIGURES xiv
LIST OF TABLES xv
LIST OF ABBREVIATIONS AND ACRONYMS xvi
CHAPTER 1: INTRODUCTION 1
1.1. Background and context 1
1.2. The global context of multiple job holding 2
1.3. The South African context of multiple job holding 4
1.3.1. Overview of the health system 4
1.3.2. The HRH context 4
1.3.3. Policy context of MJH 5
1.4. Problem statement 6
1.5. Study rationale 6
1.6. Aims and objectives 7
1.7. Structure of the thesis report 7
CHAPTER 2: LITERATURE REVIEW 9
2.1. Introduction 9
2.2. Definition of terms 9
2.3. The extent of the different forms of multiple job holding 10
2.4. Factors contributing to MJH and the experiences of health professionals engaged in MJH 11
2.4.1. Theories explaining factors influencing multiple job holding 11

2.4.2. Reasons and factors influencing multiple job holding 13
2.5. Regulation of multiple job holding 15
2.5.1. Limiting MJH policies 15
2.5.2. Incentive-based MJH policies 18
2.5.3. Permitted without restrictions 20
2.5.4. Other regulatory approaches 20
2.5.5. Research gaps 21
2.6. Literature review summary and knowledge gaps 21
CHAPTER 3: METHODOLOGY 23
3.1. Introduction 23
3.2. Conceptual framework 23
3.2.1. A brief overview of the framework and each theory 23
3.2.2. Description of the conceptual framework 24
3.3. Study setting 26
3.4. Ethical considerations in research and research ethics 27
3.4.1. Ethical considerations 27
3.5. Overview of PhD methods 28
3.6. Qualitative components of the PhD study 31
3.6.1. Component 1: Key informant interviews and document reviews 31
3.6.2. Component 2: In-depth interviews with three health professional groups 33
3.7. Data management and analysis of the qualitative components 33
3.7.1. Trustworthiness and rigour 35
3.8. Quantitative components of the PhD study 35
3.8.1. Component 3: Health professional survey with an embedded discrete choice experiment 35
3.9. Data management and quality assurance of the quantitative components 37
3.10. Integration of key qualitative and quantitative results 37
3.11. Possible bias, limitations of the study, and measures to address them 38
3.11.1. Possible sources of bias 38
3.12. Limitations of the study and measures to address them 39

3.12.1 Cross-sectional study design 39
3.12.2. Generalisability to other provinces 39
3.12.3. Covid-19 pandemic 40
3.13. Strengths and scholarly contribution of the PhD 40
CHAPTER 4: EXTENT, FORMS AND FACTORS INFLUENCING MULTIPLE JOB HOLDING 41
CHAPTER 5: EXPLORING MULTIPLE JOB HOLDING AMONG MEDICAL DOCTORS, PROFESSIONAL NURSES, AND REHABILITATION THERAPISTS 51
5.1. Background 54
5.2. Methods 56
5.2.1. Theoretical framework 56
5.2.2. Study setting and design 56
5.2.3. Key informant interviews 57
5.2.4. In-depth interviews 57
5.2.5. Data collection 58
5.2.6. Data analysis 58
5.2.7. Trustworthiness and rigour 58
5.2.8. Ethical considerations 59
5.3. Results 59
5.3.1. Characteristics of study participants 59
5.3.2. Emerging themes 60
5.3.3. Revision of the theoretical framework 70
5.4. Discussion 73
5.5. Conclusion 77
CHAPTER 6: PREFERENCES FOR MULTIPLE JOB HOLDING REGULATION 78
CHAPTER 7: THE AMBIGUITY OF REGULATING MULTIPLE JOB HOLDING IN SOUTH AFRICA 97
7.1. Introduction 99
7.2. Methods 102
7.2.1. Conceptual framework 102
7.2.2. Study setting and design 103

7.2.3. Key informant interviews 103
7.2.4. In-depth interviews 104
7.2.5. Data collection tool 104
7.2.6. Data analysis 105
7.2.7. Trustworthiness and rigour 105
7.2.8. Ethical considerations 105
7.3. Results 106
7.3.1. Socio-economic characteristics of study participants 106
7.3.2. Emerging themes 106
7.4. Discussion 120
7.5. Conclusion 124
CHAPTER 8: PERSPECTIVES ON REMUNERATIVE WORK OUTSIDE THE PUBLIC SERVICE 125
CHAPTER 9: DISCUSSION AND RECOMMENDATIONS 132
9.1. Introduction 132
9.2. Key findings and cross-cutting discussion 132
9.2.1. The extent and forms of MJH 134
9.2.2. Motivations and factors influencing MJH among health professionals 136
9.2.3. Health professionals' preferences for MJH regulatory options 139
9.2.4. RWOPS implementation and compliance 141
9.3. PhD study recommendations 145
9.3.1. National dialogue on RWOPS 147
9.3.2. RWOPS policy review 147
9.3.3. Meritocratic appointment and capacity building of health service managers 148
9.3.4. Positive practice environments 149
9.3.5. Compliance with professional codes of ethics and employment code of conduct 149
9.3.6. Review of compensation and incentive structures 150
9.4. Scholarly contribution of the PhD study 150
9.4.1. Generation of new knowledge 150

9.4.2. Methodological innovation 151
9.4.3. Policy relevance 152
9.5. Recommendation for future research 152
9.6. Conclusion 153
10. REFERENCES: 155
11. ANNEXURES 171
Annexure 1: Ethical clearance certificate 171
Annexure 2: Ethical approval from health facilities in Gauteng 175
Annexure 3: Approval from the Mpumalanga Provincial Health Research and Ethics Committee 192
Annexure 4: Permission letters from Mpumalanga Health Facilities 194
Annexure 5: Key informant interviews information sheet 236
Annexure 6: In-depth interviews information sheet 238
Annexure 7: Information sheet for the health professionals' survey 240
Annexure 8: Consent forms for key informant interviews 242
Annexure 9: Consent forms for in-depth interviews 243
Annexure 10: Electronic consent form for the Health professionals' survey 244
Annexure 11: List of policy documents and guidelines 245
Annexure 12: Interview guide for key informant interviews 246
Annexure 13: Interview guide for in-depth interviews 248
Annexure 14a: Multi-stage sampling strategy 251
Annexure 14b Selection of health professionals at each hospital category in Gauteng and Mpumalanga 251
Annexure 15: Self-administered questionnaire 252
Annexure 16 Procedure manual 312
Annexure 17 Turnitin Certificate 354

LIST OF FIGURES

Figure 1: PhD conceptual framework for the analysis of MJH among public sector health......25
Figure 2: Map of the Provinces of South Africa.....27
Figure 3: Overview of the key informant interviews......32
Figure 4: Overview of the individual in-depth interviews......33
Figure 5: Revised theoretical framework of MJH among health professionals in South Africa.71
Figure 6: Socio-economic theory of compliance applied to RWOPS.....102

LIST OF TABLES

Table 1: Theories explaining the factors influencing MJH 12
Table 2: A summary of MJH regulatory frameworks 16
Table 3: Literature review summary and knowledge gaps. 22
Table 4: Steps taken to ensure ethical research approach. 28
Table 5: Overview of research methods and outputs 30
Table 6: Steps taken in data analysis of the interviews 34
Table 7: Overview of health professional survey 36
Table 8: Characteristics of the participants 60
Table 9: Themes and sub-themes. 60
Table 10: Evolution of RWOPS Policy in South Africa: 1994 to 2024 100
Table 11: Characteristics of study participants 106
Table 12: Emerging themes and sub-themes 107
Table 13: Provincial differences in RWOPS implementation and approval procedures 110
Table 14: Summary of the key PhD findings 133
Table 15: PhD Study Recommendations 146

LIST OF ABBREVIATIONS AND ACRONYMS

CLOGIT	Conditional Logit Model
DCE	Discrete Choice Experiment
DP	Dual Practice
DPSA	Department of Public Service and Administration
GP	Gauteng
G-MNL	Generalised Multinomial Logit Model
HEEG	Health, Employment and Economic Growth
HICs	High-income countries
HPCSA	Health Professions Council of South Africa
HRH	Human Resources for Health
IDIs	In-Depth Interviews
KI	Key Informant
KIIs	Key Informant Interviews
LMICs	Low-and-middle income countries
MIXL	Mixed Logit
MP	Mpumalanga
MJH	Multiple Job Holding
mWTP	Marginal Willingness To Pay
NHI	National Health Insurance
OSD	Occupation specific dispensation
PPE	Positive practice environment
PR	Principal researcher
PSC	Public Service Commission
PSA	Public Service Act
RWOPS	Remunerative Work Outside of the Public Service
SA	South Africa
SANC	South African Nursing Council
UHC	Universal Health Coverage
WHO	World Health Organisation

CHAPTER 1: INTRODUCTION

1.1. Background and context

Human resources for health (HRH) are a cornerstone of robust health systems and central to achieving Universal Health Coverage (UHC), a target of the Sustainable Development Goals [1]. However, there is a global HRH crisis, characterised by widespread shortages, maldistribution of health professionals, increasing migration, sub-optimal performance, and weak leadership and governance [2]. This HRH crisis is more pronounced in low-and-middle-income countries (LMICs), especially those in sub-Saharan Africa, that bear the most significant shortages, poor retention due to inadequate working conditions and insufficient retention incentives [3].

South Africa (SA) boasts higher national health worker densities compared to most other African countries, excellent health science education institutions, and has robust legal frameworks and 5-year cyclical HRH national strategic plans [4]. Despite these strengths, the country grapples with inept leadership and management, paradoxical health professional shortages and unemployment, disparities in the distribution of HRH between urban and rural areas, and between the public and private health sectors, as well as sub-optimal performance of the health workforce [5, 6].

Against this backdrop, multiple job holding (MJH) among public sector health professionals warrants closer examination, as it affects their performance. MJH also referred to as dual practice or moonlighting when practised without approval [7, 8], is a labour market phenomenon, that is ubiquitous across various sectors, including in healthcare. In the health system, MJH describes the practice of government employees working both in the public and private health sectors, either within or outside public facilities, typically for financial gain [9]. This phenomenon has implications for UHC, often undermining efforts to address existing health workforce challenges [10, 11].

MJH has both positive and negative effects on health professionals and the health systems, with its effects on UHC varying according to context [12]. Although MJH has the potential to improve the retention of skilled professionals, enhance care quality, increase earnings, and alleviate the public sector wage burden, it also poses significant challenges. These include the misuse of public resources, diversion of patients to private care, and an urban bias in service delivery [10, 13-15]. The World Health Organization (WHO) has emphasised the need for further research on MJH, including regulatory responses to the phenomenon [15].

The theoretical foundation of MJH draws from various disciplines, offering distinct explanations for this practice, which are explored in detail in the literature review (Chapter 2). Briefly, economic theories

view MJH as a response to financial and time constraints in their primary jobs, with individuals seeking secondary employment to supplement their incomes or to gain additional skills [16-19]. Sociological theories focus on the professional aspects of MJH, suggesting it allows individuals to enhance their expertise and gain peer recognition [8]. Organisational theories suggest that both work-related and personal factors influence MJH. While MJH offers benefits, it can also affect the behaviour and performance of workers [8]. Finally, governance theories suggest that moonlighting can indicate poor governance, reflecting weaknesses in regulation, management and/or ethical concerns in the public service [20-23]. These theories suggest that health professionals engage in MJH for various reasons, including individual career goals, the gap between salary expectations and actual income, anticipated lifestyles, and working conditions in the primary jobs [12].

My PhD thesis brings together three strands at conceptual and methodological levels: firstly, the discourse on the regulation of MJH in South Africa and the implementation of the Remunerative Work Outside of the Public Service (RWOPS) policy; secondly, the extent (prevalence) and forms of MJH and its influencing factors among medical doctors, professional nurses and rehabilitation therapists working in public sector hospitals in the Gauteng and Mpumalanga provinces of South Africa; thirdly, the perspectives of these health professionals on MJH and their stated preferences on MJH regulatory incentives and restrictions. Hence, this chapter aims to summarise the context and background of my PhD research. Sections 1.2. and 1.3 summarise the global and South African context of MJH respectively, followed by the problem statement in Section 1.4. and study rationale in Section 1.5. Section 1.6 outlines the aim and objectives of the PhD study. Section 1.7 provides an overview of the structure of the rest of this PhD thesis.

1.2. The global context of multiple job holding

Research on MJH has been dominated by economists and management scholars [24]. In the seminal 2006 World Health Report that focused on HRH, MJH received scant attention, except for one sentence on the inability or unwillingness of governments to enforce regulations that prohibit moonlighting of public sector health professionals in the private sector [25]. Notwithstanding the importance of MJH, ten years later, the 2016 report of the Commission on health, employment and economic growth (HEEG) only mentions dual practice in relation to the regulation of the private sector [26]. Similarly, the evidence base for the HEEG report only mentions dual practice once and in passing [27]. The subsequent Working for Health action plan that covers the period from 2022 to 2030 emphasises the cluster of health workforce protection and performance as a key priority but does not mention MJH [2]. This illustrates the relative neglect of MJH in the global HRH policy discourse.

Nonetheless, the preceding 20 years have seen increasing scholarly attention on MJH among health professionals in diverse health systems [28-36]. Consequently, substantial literature exists on MJH, including reviews or studies on government policy approaches [7, 12, 37-41], the prevalence of and factors influencing MJH, the stated motivations or furnished reasons of health professionals for doing MJH [28-36], and the consequences of MJH for patient care and/or health systems [10-12, 41].

Government responses to MJH are context-dependent and vary according to the regulatory capacity and the level of effort dedicated to enforcement, but include outright bans, partial restrictions, or no restrictions [15]. A 2004 review of multiple public-private job holding of health care providers in LMICs also highlighted ineffective government policy responses, often not informed by evidence on the extent or characteristics of MJH [8]. Regardless of income level, these MJH policies and/or regulations on MJH tend to target medical doctors [12, 41, 42], with limited research on policy options to regulate MJH among nurses [40]. Other categories of health professionals such as rehabilitation therapists are largely absent from the policy discussions or proposals. Consequently, the WHO has advocated for further research into the evolution and effectiveness of policy interventions to address MJH in different country contexts [15].

Although research on MJH has focused predominantly on medical doctors, existing evidence suggests that MJH is common among all health professionals globally [15, 41, 43]. Similar to MJH regulatory approaches, the prevalence of MJH depends on context, definitions used, and the nature of the health labour market [44]. For example, in many northern European countries, public-sector medical doctors are allowed to work in private healthcare facilities [12] and often engage in independent private practice [34]. In contrast, some southern European countries initially prohibited MJH, but many public sector doctors continued private practice even before the bans were lifted. [12]. MJH is also common among nurses [40], with an extensive studies on nursing agencies and moonlighting in America, Australia, and the United Kingdom [45-49]. The 2004 review on MJH in LMICs also found that MJH was widespread, with general hostility to the notion that public servants should engage in private employment [8]. However, the public sector challenges of limited staffing, low wages, and poor working conditions especially in African health systems have made additional work in the private sector an increasingly viable option for health professionals and contributed to MJH [50, 51].

MJH theories highlight the overlapping and inter-dependent reasons for the phenomenon, with financial motivations being the most significant [11, 30, 41]. Many health professionals seek additional employment to supplement their income, especially when their primary job is in the public sector [7, 12, 40, 41]. Although shaped by country context, and individual circumstances [50], a scoping review reported no evidence of a difference between HICs and LMICs in the importance of financial reasons for MJH among nurses [40]. Several studies have also found that non-financial drivers such as skills

development, professional autonomy, job satisfaction, and career development opportunities were also important for medical doctors and nurses [28, 36, 52, 53].

1.3. The South African context of multiple job holding

1.3.1. Overview of the health system

Apartheid left a legacy of a fragmented, racially segregated health system and pervasive inequalities, that continue to influence HRH in South Africa [54, 55]. Key features of South Africa's health system include its plurality with the co-existence of public and private sectors, healthcare spending in excess of 8% of the gross domestic product, and huge inequities in the distribution of health professionals between the two sectors [56].

In terms of the South African Constitution, health is a concurrent responsibility of both national and provincial governments [57]. The national government is responsible for legislation, setting norms and standards, and monitoring the delivery of health care [57]. The provincial health departments are responsible for the governance, planning and delivery (implementation) of health services in the public sector [57]. In practice, provincial health departments have considerable autonomy, with wide variation across the nine provinces in health care organisation, management and service delivery [58]. Roughly half of total health care expenditure, primarily funded by taxes, occurs in the public sector, which is under-resourced and serves about 84% of the population [59, 60]. Care is provided through a network of primary health care (PHC) facilities and hospitals of different levels of specialisation [59].

In contrast, the highly resourced private health sector serves about 16% of the South African population with variation in coverage across the nine provinces. Funded primarily through employer-subsidised health insurance (called medical aids) [60], the private-for-profit sector operates through a network of hospitals which are mainly located in the major urban areas. The Health Market Inquiry (HMI) found that private health care in South Africa is characterised by high and rising costs in a predominantly fee-for-service market [61].

1.3.2. The HRH context

At a policy level, there is recognition that HRH is key to achieving health system goals, with a strong focus on investing in a skilled, well-distributed workforce to address inequities, improve population health, and ensure effective responses to health crises [4].

Medical doctors, both medical practitioners (generalists) and specialists, in the private sector work as independent practitioners in solo practices, except for single-discipline group practices such as radiologists, some anaesthetists, and corporate pathology groups [61]. These practices tend to be located on the same premises as private hospitals. The HMI found that general practitioners (GPs) are evenly

distributed across the insured population, but that medical specialists are concentrated in provincial capitals and metropolitan areas [61]. This maldistribution exacerbates the inequalities in access to specialist health services [59]. Professional nurses are in salary-employment in private hospitals, employees, and staffing levels are determined by operational demands and anticipated patient load. The shortfall is covered by nurses recruited through nursing agencies. Rehabilitation therapists tend to work in solo private practices and may also be employed by other rehabilitation professionals in the private health sector.

Notwithstanding the inequalities in the distribution of health professionals between the public and private health sectors, there are also huge inequalities within the public health sector, both between and within provinces [62]. In 2019, the public health sector had 282 nurses per 100,000 people, 43 doctors (generalists) per 100,000, and 30 allied health professionals (rehabilitation therapists are part of this group). Additionally, there were seven medical specialists per 100,000 in the public sector, compared to 69 per 100,000 in the private sector [4]. These inequalities are exacerbated by the differences in working conditions between the public and private health sectors. The public sector is challenged by high patient volumes with complex disease profiles, deteriorating infrastructure, sub-optimal management, staff shortages, exacerbated by budget constraints and difficulties in filling vacant posts, and low morale [63]. In contrast, the private sector serves a smaller proportion of the overall South African population, lower patient volumes, high investment in technology and modern equipment, financial resources, and adequate staffing [63].

1.3.3. Policy context of MJH

In South Africa, the Public Service Amendment Act (PSA) of 1994 provides the legal framework for MJH for all public sector employees, termed Remunerative Work Outside of the Public Sector (RWOPS) [64, 65]. Although the RWOPS policy applies to all public sector employees, it was initially adopted in the public health sector as an incentive to retain medical specialists by allowing them to supplement their income through private sector work [59, 66]. However, the policy has had a complex and contested history (see Chapters 7 and 8).

In terms of the RWOPS policy, public sector employees can engage in MJH provided that written approval from the designated authority has been obtained and that the additional work occurs outside official working hours and does not compromise their public duties or the quality of care for public patients [65]. Permission is valid for 12 months and must be renewed annually, with guidelines, monitoring, and reporting mechanisms in place to regulate RWOPS activities [67].

In contrast to the global discourse on MJH, the RWOPS policy, particularly as it pertains to medical doctors, has been in the spotlight because of alleged non-compliance. A 2004 Public Service

Commission (PSC) investigation on RWOPS in two academic hospitals in Gauteng province highlighted non-compliance with the RWOPS policy and its potential abuse, particularly by medical specialists [68]. In the period between 2006 when the PSC report was released, and 2020 when the PhD was planned, the debate has focused on the advantages and disadvantages of the RWOPS policy, as well as compliance by health professionals, notably medical doctors (see Chapter 8) [66, 69]. The 2018 Presidential Health Summit underscored the need to review the RWOPS policy [70], and this matter was flagged as a policy priority in the HRH Strategy [4].

1.4. Problem statement

There are three empirical problems that this PhD sets out to address. Firstly, MJH is legal in South Africa through the provision of the PSA, and the subsequent RWOPS policy. However, there are no published empirical studies on the RWOPS policy as an MJH regulatory mechanism, and there is insufficient evidence of compliance among public sector health professionals, as well as the reasons for non-compliance and alleged abuse among public sector health professionals.

Secondly, there is a dearth of empirical studies that compare the MJH prevalence, forms and influencing factors among medical doctors, professional nurses, and rehabilitation therapists in South Africa's public health sector. Empirical data on MJH among nurses [28] and medical specialists [71] are available but outdated, while MJH among rehabilitation therapists has been absent from the HRH reform discussions [72]. Furthermore, in-depth qualitative studies of the MJH narratives and motivations that could explain survey findings, are rare. Lastly, emerging evidence on the value of labour market analyses suggests that the preferences of health professionals for HRH policies or regulations are critical in shaping the design and appropriateness of strategies or interventions [73]. However, there is little evidence on the stated preferences of different categories of health professionals on MJH regulatory incentives and restrictions, specifically, the RWOPS policy in South Africa.

1.5. Study rationale

The rationale for this PhD was both its scholarly contribution, and the potential to contribute to HRH policies and health sector reforms in South Africa.

The scholarly contribution of the PhD is threefold. Firstly, this PhD is one of the first studies that focused on the perspectives of key policy actors on the RWOPS policy as an MJH regulatory mechanism and the reported compliance of medical doctors, professional nurses, and rehabilitation therapists with selected aspects of RWOPS policy provisions. Secondly, the PhD research generated new knowledge on the prevalence of MJH and the factors contributing to it among medical doctors,

professional nurses, and rehabilitation therapists. The novelty of the PhD is also the ability to compare MJH prevalence, forms, and influencing factors among these three professions. Thirdly, the study employed a discrete choice experiment (DCE) to examine the preferences of public sector health professionals in two South African provinces concerning different MJH regulatory incentives and restrictions. The use of this DCE methodology to investigate MJH regulation was both novel and innovative, especially in an African setting. The PhD methodology and findings have relevance for the global discourse on MJH, but especially for other LIMCs.

The PhD study findings could inform HRH policies or initiatives regarding MJH, ultimately enhancing health system performance, a pivotal aspect of ongoing health sector reforms in South Africa.

1.6. Aims and objectives

The study aimed to investigate the experiences, extent, contributory factors, and regulation of multiple job holding among public sector medical doctors, professional nurses, and rehabilitation therapists in Gauteng and Mpumalanga.

The specific objectives of the study were to:

1. Explore stakeholders' perspectives on the implementation of the RWOPS policy as a regulatory mechanism for multiple job holding in Gauteng and Mpumalanga.
2. Explore the experiences of public sector medical doctors, professional nurses, and rehabilitation therapists in Gauteng and Mpumalanga concerning MJH.
3. Describe the extent of different forms of MJH among public sector medical doctors, professional nurses and rehabilitation therapists in Gauteng and Mpumalanga.
4. Determine the factors influencing MJH among public sector medical doctors, professional nurses, and rehabilitation therapists in Gauteng and Mpumalanga.
5. Investigate the relative trade-offs between different incentives and restrictions to influence MJH among public sector medical doctors, professional nurses, and rehabilitation therapists in Gauteng and Mpumalanga.

1.7. Structure of the thesis report

This thesis adopts a publication-style format. The introductory chapters provide background, literature review, and methodology, while the results are presented as individual papers addressing specific research objectives (Chapters 4 to 8). An integrating narrative in Chapter 9 links these papers, providing coherence and situating the findings within the broader context of the study.

Chapter 1: This chapter has highlighted the global and South African context of multiple job holding. The problem statement, study rationale, and the aims and objectives of the study were also discussed.

Chapter 2: This chapter presents an overview of the literature on multiple job holding.

Chapter 3: This chapter provides an overview of the research methodology, the ethical considerations and study limitations.

Chapters 4 to **8** present the results of the PhD as individual papers.

Chapter 4: Paper 1: Examining the extent, forms and factors influencing multiple job holding among medical doctors, professional nurses, and rehabilitation therapists in two South African provinces: a cross-sectional study. (Published in BMJ Open).

Chapter 5: Paper 2: Exploring multiple job holding among medical doctors, professional nurses, and rehabilitation therapists in South Africa. (Planned submission to Frontiers in Health Services).

Chapter 6: Paper 3: Preferences of medical doctors, professional nurses and rehabilitation therapists for multiple job holding regulation in the public sector: a discrete choice experiment. (Published in PLOS One).

Chapter 7: Paper 4: The ambiguity of regulating multiple job holding in South Africa (Planned submission to Health Policy and Planning).

Chapter 8: Paper 5: Perspectives of doctors, nurses and rehabilitation therapists in Gauteng and Mpumalanga provinces' public hospitals on Remunerative Work outside of the Public Service. (Published in the South African Medical Journal).

Chapter 9: This chapter provides an integrated and cross-cutting discussion of all the components of the PhD study. The chapter also discusses the scholarly contribution, policy implications and recommendations of the PhD study and provides recommendations for future research.

CHAPTER 2: LITERATURE REVIEW

2.1. Introduction

This chapter presents an overview of the literature on MJH, specifically the extent, forms, and factors influencing MJH as well as regulatory approaches to MJH and the views of stakeholders on the implementation of the RWOPS policy in SA. The chapter starts with the definition of terms used in the thesis. The second part of the literature review will be on the extent and forms of MJH, looking at its prevalence globally and in SA. The third part will be on the factors that influence MJH and the experiences of health professionals with MJH. The fourth part will be a review of regulatory approaches to MJH and its enforcement. The literature review will conclude with a summary of key findings and evidence gaps corresponding to each study objective.

2.2. Definition of terms

Term	Definition
Discrete Choice Experiment	A method for quantitatively assessing stated preferences [74] that involves presenting participants with hypothetical choices featuring various combinations of attributes [75]. DCEs reveal the strength of participants' preferences, trade-offs between various combinations of attributes for different jobs, and the likelihood of selecting these jobs [76].
Health professional	In this thesis, a health professional is defined as a medical doctor or rehabilitation therapist who is registered with the Health Professions Council of South Africa (HPCSA) or a professional nurse who is registered with the South African Nursing Council (SANC).
Multiple job holding	MJH in the health sector is defined as health professionals who work in more than one paid job at the same time [77]. In this thesis, MJH pertains to medical doctors (medical practitioners and specialists), professional nurses, and rehabilitation therapists who hold additional paid employment alongside their primary job within the South African public health sector.
Rehabilitation Therapist	Includes an occupational therapist, physiotherapist, speech therapist/ audiologist, and audiologist registered with the HPCSA.
Health labour market	Comprises the demand for and supply of health professionals, shaped by a country's institutions and regulations. The supply side includes factors influencing workforce availability, such as training, migration, and attrition; while the demand side encompasses the public, private, or donor sectors

employing health workers. Governance and policy frameworks establish the rules for the labour market to function [78].

2.3. The extent of the different forms of multiple job holding

Context, the characteristics of health labour markets, and individual occupations influence the definitions and descriptions of the types or forms of MJH [29]. A common MJH typology is whether the additional paid work is clinical, defined as the diagnosis and treatment of patients, or non-clinical. Medical doctors can engage in clinical private work: (i) *outside*, operating entirely in a separate external private setting; (ii) *besides*, functioning in a private ward or clinic physically connected to a public facility but operating independently; (iii) *within*, providing private services within a public facility but outside its regular operating hours or designated space; or (iv) *integrated*, wherein additional fees may be levied for services delivered alongside standard public offerings, often informally, with the expectation of faster or higher quality service [29]. Doctors can also engage in non-clinical private work, such as in businesses and/or academia [79]. Studies of MJH among nurses [47, 80-85] explored three forms of MJH - working additional overtime in their primary public hospital or other public hospitals, employment in private through a nursing agency, and non-clinical work in the private sector. Rehabilitation therapists engage in similar forms of MJH to medical doctors, working in private hospitals, practices, locums, and non-clinical jobs in the private sector. Regulatory frameworks, healthcare system structures, and socioeconomic conditions shape how health professionals practise MJH [29].

The extent of MJH varies across different countries and health professionals. For example, a multi-country study of HRH in Africa and Latin America found that nurses and midwives were less likely to engage in MJH compared to medical doctors (medical practitioners and medical specialists) [83]. This finding is consistent with the wider literature, but it also raises questions about the varying job opportunities or structural barriers that may prevent nurses from pursuing MJH. The prevalence of MJH reported in the literature ranges between 5% and 80% among nurses [40, 53] and 25% to 100% among medical specialists [37, 41, 53] across different settings. These wide ranges reflect challenges in comparing studies, which may stem from variations in methodological approaches and contextual factors, such as differences in healthcare systems or economic conditions. Such disparities complicate efforts to draw generalised conclusions or identify consistent trends. In a global review [41], MJH among medical doctors was reported in 81% of the 195 countries studied, with no significant difference between the percentage of HICs (77%) and LMICs (82%) reporting it. The extent of MJH participation also differs across various medical specialities, with surgical specialities exhibiting higher levels of MJH participation [86]. The available literature has not examined whether surgical work is inherently

more conducive to MJH or if the higher prevalence of MJH in surgical specialities reflects the economic and organisational conditions surrounding these fields.

Research on medical doctors having multiple jobs in HICs is extensive [7, 41], focusing on its prevalence, forms, causes [7, 29, 34, 41], and possible regulations [12, 37]. While this research provides valuable insight into MJH, it is important to consider that these findings may not be directly translatable to LMIC contexts, where different healthcare systems and socioeconomic factors may play a role. In contrast, less research has been conducted on MJH among nurses in HICs and LMICs, despite evidence of high MJH in both settings [40], and concerns about its effects on their well-being [84]. This gap highlights the need to examine MJH among nurses, who make up a significant portion of the healthcare workforce, considering the effects of MJH on their well-being.

In the South African context, Khan *et al* [87] found that 20% of public sector general surgeons engaged in MJH in 2006, according to data from the Association of Surgeons of South Africa databases. Another South African survey [88] of medical specialists found that out of 178 respondents, 37.1% of public sector specialists worked additionally in the private sector in 2012, while Wishnia *et al* [71] found a prevalence of 35% in 2019 (62). On the other hand, a survey of 3,784 nurses across four provinces found that 40.7% were moonlighting or working for an agency [84]. Most South African studies on this topic are over a decade old, except for the study by Wishnia and colleagues [71], and may not reflect the current landscape of MJH in the country. Additionally, while existing research primarily focuses on nurses and medical doctors, there is limited evidence on the forms and extent of MJH among rehabilitation professionals from any setting, including South Africa, indicating a need for further exploration.

2.4. Factors contributing to MJH and the experiences of health professionals engaged in MJH

2.4.1. Theories explaining factors influencing multiple job holding

Researchers have utilised various theories to explain why individuals are motivated to engage in MJH, with an overview of these theories presented in **Table 1**.

Table 1: Theories explaining the factors influencing MJH

Theory/Framework	Theoretical perspective on MJH	Key factors
1. Betts' organisational theory on moonlighting [89]	• MJH participation is influenced by various organisational, occupational, environmental, and individual factors. • MJH also offers work-related benefits that can be complementary (e.g., pursuing creativity) or supplemental (e.g., additional income). • Although MJH offers additional benefits (such as income and training), it may also modify workers' habits and beliefs about their primary employment.	• Organisational aspects: MJH rules, policy implementation, working hour regulation, human resources, and incentives. • Occupational factors: type of health professional, specialisation, and demand for profession-specific services. • Environmental factors: economic position and employment rates of the country, salary rates between the public and private sectors, working conditions, and the professionals engaged in MJH. • Individual influences: practitioners' demographics, finances, job views [90], and ethics.
2. Classical microeconomic labour theory of MJH [16-19]	• Explains MJH in terms of the limits on working hours in the main job and a desire for heterogeneous work	• Restrictions on working hours in the primary job limit an individual's ability to make more money; hence, individuals may choose to pursue a second job to supplement their income. • Individuals may also opt to work a second job for a variety of non-monetary reasons, according to the heterogeneous jobs explanation [16].
3. Russo and colleagues' framework on MJH [29]	• Examines MJH by considering local factors such as health system governance and the local market structure for medical doctor services • Health systems governance and market structure significantly influence the forms and prevalence of MJH.	• Health system governance: regulation of MJH and the institutions responsible for its implementation, • Local market structure: supply, demand, and services provided by medical doctors
4. Sociological perspectives [8]	• MJH is influenced by the need of health professionals to sustain their professional identity and secure peer recognition • MJH helps maintain professional identity, align with shared values, and advance scientific knowledge and practice.	• Health professional characteristics: specialised training, peer recognition, and the pursuit of knowledge.
5. Governance perspectives [20-23]	• MJH is seen as a: ➢ sign of poor governance and viewed as a form of corruption that negatively impacts healthcare delivery. ➢ conflict of interest, where public servants prioritise personal gain over public duties, leading to corrupt behaviour like absenteeism [23]	• Public servants' conflict between personal interests and obligation to the public health sector (employer) [23] • Lack of enforcement or consequences leads to public servants prioritising their interests [23]

2.4.2. Reasons and factors influencing multiple job holding

The theories outlined in the previous sections suggest that MJH is influenced by a range of financial, non-financial, individual (socio-demographic, speciality) and organisational (working conditions) factors. Campion *et al'*s systematic review [24] of MJH across different occupational sectors grouped MJH motivations into three broad categories: financial, career development (such as job variety), and psychological fulfilment (such as taking additional jobs for enjoyment) [24]. Expanding on this, Campion and Csillag's mixed-methods study [91] of 1,487 MJH workers across 20 different industries in the United States identified career growth, personal interest, and financial need as the main motivations for MJH, despite the expectations that financial need would be the primary driver. Similarly, although financial factors were often cited as the main reason for participation in MJH [29, 33, 34, 51, 92], non-financial reasons are important drivers of MJH participation among doctors and nurses [28, 36, 52, 53].

In terms of geographical variation, Hoogland *et al*'s review [41] of MJH among doctors in 157 countries found that the main reason for MJH was low public sector salaries, reported by 55% of the studies. However, 65% of these studies were from LMICs, while only 30% were from HICs. The overrepresentation of LMIC studies in Hoogland et *al*'s review may limit the generalisability of its conclusions across income settings. Russo *et al*'s scoping review [40] on MJH among nurses revealed that, at the individual level, nurses in HICs and LMICs participated in MJH primarily to augment their public sector wages, with non-financial factors such as job satisfaction and flexibility also playing significant roles [40]. In contrast, in the South African context, non-financial reasons, such as learning new clinical skills, were the primary motivators for MJH, though financial reasons remained significant [28]. The literature indicates a contextual difference, with South African nurses reporting a prioritisation of non-financial reasons for MJH, while financial reasons are more prominent in HICs and LMICs.

Professional category and specialisation also play key roles in MJH participation. For instance, a Danish study found that MJH was common among surgical medical specialists, particularly among specialists in otorhinolaryngology, ophthalmology, orthopaedics, and anaesthetics [93]. Similarly, in SA MJH was more common among specialists who derived high incomes from the private sector such as specialities in surgery and anaesthesiology [94], while MJH was common among nurses working in critical care, maternity, theatre and emergency departments [28]. According to my knowledge, there are no studies on the extent of MJH among rehabilitation therapists, neither locally nor internationally.

Furthermore, there is also evidence that sociodemographic variables such as age, gender and geographic location (contextual factor) influence engagement in MJH [31, 52, 95]. A hospital registry-based study among doctors in Norway found that the prevalence of MJH was 25.0% among male doctors and 14.2% among female doctors [34]. In Iran, a study conducted among doctors found that being male was

associated with higher salary expectations and, thus, more motivation to engage in MJH [95]. Similarly, a Brazilian study found that doctors who engaged in MJH were predominantly male and middle-aged compared to non-MJH public sector doctors who were mainly female and younger [31]. The associations with age and gender may be linked to financial responsibilities stemming from gender roles, as demonstrated by a South African study which found that nurses with children had higher odds of engaging in MJH compared to those without children [28].

Finally, studies have found that organisational factors that influence MJH include poor public hospital working conditions, such as insufficient facilities and shortages of medications or equipment, as well as high workloads [32, 41]. Additionally, contextual factors, such as the high demand for health professionals by the private sector are also cited in the literature as one of the reasons for MJH [40]. In African countries, studies on medical doctors have shown that those in urban areas have more opportunities for MJH and are less likely to leave public-sector jobs for full-time private sector work [29, 96]. Similarly, healthcare reforms in other contexts, such as Canada, have led to a significant increase in MJH, with a 3.5-fold rise following regionalisation of the healthcare system [97]. In South Africa, a growing demand for nurses in the private sector has been similarly observed [40].

2.5. Regulation of multiple job holding

The regulation of MJH presents significant challenges, with varying measures taken by governments across different contexts, ranging from limiting policies (complete bans) to incentive-based policies (increasing public sector salaries) to self-regulation (professional ethics guiding behaviour). These efforts aim to mitigate the adverse effects of MJH by reducing or managing its extent (prevalence) in the private sector [38, 42]. However, experiences with these regulatory measures differ widely across contexts, and there is a lack of rigorous evidence of their impact. Limiting and rewarding MJH regulation policies are not necessarily mutually exclusive and may be implemented together in some contexts.

2.5.1. Limiting MJH policies

Limiting policies include complete bans, restricting private practice licenses to senior health professionals, restricting MJH hours and restricting private sector earnings (**Table 2)**. Studies have shown that complete bans on MJH are not effectively enforced in both HICs and LMICs [12] due to limited resources for proper implementation [39]. These bans rarely reduce MJH [12], as seen in Portugal, Greece and China [38]. MJH bans are also associated with pushing health professionals to completely move to the private sector or other countries, especially in LMICs [8], and increase the chances of doctors accepting informal payments, as observed in Greece [98]. A study conducted in Palestine found that implementing a complete ban on MJH would not alleviate the financial strain on patients or improve their ability to access high-quality services in the public sector [42]. In addition, offering private licenses only to senior professionals has failed in countries like India and Zambia, where junior nurses and junior doctors violated their exclusion [39]. Similarly, restricting the hours that health professionals can perform MJH has also failed in countries like Indonesia and the United States of America, where medical doctors in Indonesia and residents in the US disregarded the hour restrictions [39].

Table 2: A summary of MJH regulatory frameworks

Regulatory approach	Possible challenges for the health system	Possible key factors for success	Country examples
LIMITING MJH POLICIES			
Complete ban The practice of MJH is completely prohibited for health professionals [12, 38, 39]	• Challenging to enforce, MJH persists despite regulations [12, 39]. • Migration of health professionals to the private sector, other countries or provinces that allow MJH [12, 39].	• Sufficient public sector funding [39] • Favourable public sector working environment and conditions [39] • Established systems to monitor private payments [39]	**HIC:** Quebec province – Canada, China (before 2009) [12, 38, 39] **MIC:** Iran [99] **LMIC:** India (some states), Saudi Arabia, and Turkey (except university hospitals) [42], Mozambique (failed attempt) [29]
Restricting private practice licences to senior health professionals Limits MJH to selected professional categories, such as senior consultants, by not issuing private practice licenses to juniors [12, 38, 39].	• It is challenging to monitor [39] • Junior professionals often violate the policy [39]	• Established systems to implement and monitor MJH [39]	**MIC:** Iran [32] **LMIC:** Kenya (certain states), Indonesia, Zambia, Zimbabwe, Ethiopia [39]
Restricting MJH hours Limiting MJH to specific hours, after-hours or off-days [12, 38, 39].	• Weak monitoring systems make it difficult to enforce, leading to violations of the policy [12, 39] • It is burdensome to monitor health professionals [12, 39]	• Established systems to implement and monitor MJH [39]	**HIC:** Japan (some public hospitals) [12] **MIC:** South Africa [67], Nigeria [100] **LMIC:** Indonesia [39], Cape Verde [29]
Restricting private sector earnings The amount of money that can be earned by public sector workers in the private sector is capped [12, 38, 39].	• Lack of financial systems to ensure that private income and activities are restricted [12, 39].	• Sufficient public sector funding [39] • Favourable public sector working environment [39] • Established systems to monitor private payments [39]	**HIC:** Canada (certain states), France, United Kingdom [12, 38, 39]
INCENTIVE-BASED MJH POLICIES			

Regulatory approach	Possible challenges for the health system	Possible key factors for success	Country examples
Exclusive contracts Doctors receive exclusive contracts with salary incentives or promotions for working solely in the public sector [12, 38, 39].	• Inadequate public sector funding makes offering exclusive contracts or increasing wages difficult [12, 39].	• Sufficient public sector funding [39] • Favourable public sector working environment [39] • Established systems to monitor private payments [39] • Established systems to implement and monitor MJH [39]	**HIC:** Spain, Portugal, and Italy [12, 39] **LMIC:** Thailand and India (some states) [12], Iran [99], Cape Verde [29]
Encouraging public doctors to develop their private practice in public facilities. Medical doctors are permitted to conduct private practice within public hospitals [12, 38, 39].	• There may be a risk of conflict of interest for the health professionals [12, 39]. • Price differences between private and public patients may be observed as discriminatory [12, 39]. • There may be overutilisation of public resources for private patients [12, 39].	• Established systems to implement and monitor MJH [39]	**HIC:** France, Germany, Ireland, Austria [12] **MIC:** Malaysia [101] **LMIC:** Rwanda [102]
Raising public sector salaries	• Raising public sector salaries can incentivise MJH, but the effect may be short-term and unsustainable [12, 39]. • It is often unaffordable, particularly for LMICs, where the public sector struggles to match private sector salaries [12, 39].	• Sufficient public sector funding [39] • Favourable public sector working environment [39] • Well-functioning and transparent administration system [39]	**HIC:** Norway [34] **LMIC:** Bangladesh [103], South Africa equivocal [104, 105].
PERMITTED WITHOUT RESTRICTIONS			
Self-regulation Health professionals are responsible for regulating their conduct by adhering to ethical standards, peer oversight, and public accountability, which fosters trust, integrity, and ethical practice [12, 38, 39].	• In HICs, a culture of ethical behaviour and peer pressure promotes adherence to ethical standards, with professional bodies ensuring accountability and preventing unethical behaviour. In LMICs, the absence of such a culture, combined with weak monitoring, poor morale, and ineffective professional bodies, hinders self-regulation. [12]	• A culture that values ethical standards and peer oversight ensures adherence to those standards [12] • Robust professional statutory bodies and civil society organisations [39] • Independent review systems and accessible reporting channels [12, 39].	**HIC:** United Kingdom [39], Norway [34]

The final limiting MJH policy includes limiting private sector earnings, which means limiting the amount of money medical doctors can earn while working full-time in the public sector. González and Macho-Stadler's [37] theoretical modelling study suggests that regulating income is not as effective as regulating involvement because it does not reduce the extent of MJH and its associated impacts. However, in Canada [39], financial restrictions effectively reduced MJH by making private practice less appealing for public sector doctors. Key measures included limiting private sector services to those not available in the public health sector, capping private health sector charges and insuring only services not covered by universal insurance. These measures reduced financial incentives for MJH, which benefited from Canada's well-resourced health system, universal insurance coverage, and monitoring systems [39], features that may not be available in most LMICs. Similarly, a theoretical modelling study [106] analysing how MJH among medical doctors affects healthcare delivery suggested that controlling the prices of private treatments offers the greatest welfare. This price control approach would involve setting limits on how much can be charged for private treatments, which helps regulate the size of private practices and ensures providers receive fair compensation. This method was found to lead to better overall welfare compared to other strategies, such as adjusting public reimbursement rates or banning MJH. However, enforcing price regulation may be difficult, particularly in informal or loosely regulated private healthcare sectors. In such scenarios, imposing a maximum quota on the number of private treatments could serve as a more effective alternative. These quotas aim to limit the extent of private service provision and balance public and private sector responsibilities, although challenges related to compliance and feasibility may arise. Despite the limitations of theoretical modelling studies, the findings highlight the importance of regulating private health sector involvement to prevent excessive MJH.

Several key factors are considered necessary for the success of limiting MJH policies. These factors included sufficient public sector financing, supportive working environments in the public sector, and established systems to monitor private payments and implement MJH policies [39].

2.5.2. Incentive-based MJH policies

Incentive-based MJH policies include raising public sector salaries, encouraging public sector doctors to develop private practices in public hospitals and offering higher remuneration for public sector doctors who contract to work exclusively in the public sector (**Table 2**).

The first incentive-based approach is increasing public sector salaries [12]. An analysis conducted in Norway examined the impact of increased salaries on working hours and sector choice among doctors [107]. The results revealed that higher public sector salaries led to more hours in the public sector but fewer in private practice. Conversely, higher private sector earnings led to more private practice hours but fewer hours in public hospitals. Furthermore, a survey conducted in Bangladesh [103] indicated that

while most primary health doctors were willing to give up MJH given enhanced public sector salaries, doctors in secondary and tertiary facilities were not prepared to do so [103]. Salary increases have been implemented for certain healthcare workforce categories in South Africa, facilitated by an occupational-specific dispensation (OSD), along with rural allowances and commuted overtime payments. There is uncertainty regarding the effectiveness of these measures in producing desired outcomes despite financial incentives being provided [108, 109]. Furthermore, despite these various incentives MJH persisted among medical specialists [71, 88].

Encouraging public doctors to develop their private practice within public facilities includes allowing them to treat private patients at public hospitals, with compensation based on a fee-for-service model. This approach has been adopted in various European countries, such as France, Austria, Germany, and Ireland [12, 38]. According to Kayumba *et al* [102], in 2021 Rwanda implemented a dual clinical practice policy that reserves space in public facilities for private practice and limits healthcare professionals to one additional private institution. Kayumba *et al*'s [102] mixed-methods study examined the policy's implementation and found that it improved provider retention, patient satisfaction, and hospital revenues in urban areas. However, the study also identified challenges, including limited policy awareness, difficulties in monitoring the practice, and concerns about its long-term sustainability and the adequacy of healthcare provider remuneration. Highlighting the need for policy revisions and a more collaborative approach with relevant stakeholders. Other studies [12] found that developing private practices in public facilities enabled more effective regulation and monitoring of private healthcare provision, as both public and private services are delivered within the same facilities. However, challenges such as conflicts of interest between public and private patients, as well as the fraudulent use of public resources for private patients, were observed [12].

The third incentive-based approach involves offering exclusive contracts, providing higher salaries and additional incentives to health professionals who opt not to engage in MJH. Governments in Spain, Portugal, Italy, and Thailand regulate MJH by offering exclusive contracts to health professionals in the public sector. These contracts are designed to discourage private sector employment by providing financial incentives and opportunities for professional development within the public sector [12]. These incentives might include financial perks such as bonuses, flexible working hours, and promotions. However, offering exclusive contracts only to doctors, while excluding other health professionals, may create resentment among different professional groups [110].

The success of incentive-based MJH policies depends on the country's context, including the strength of the private sector, the availability of enforcement mechanisms, and the financial resources that incentivise public sector work [12].

Remunerative Work Outside of the Public Sector (RWOPS) policy

Public sector health professionals in South Africa have been allowed to take part-time jobs in the private sector since the early 1990s, initially under the Limited Private Practice Policy and from 2001 onward, under the RWOPS policy [94]. The RWOPS policy in the public health sector is perceived as an incentive allowing public sector health professionals to earn additional income in the private sector [59]. Despite this policy, concerns have arisen regarding enforcement and abuse, particularly among medical specialists [4, 68, 69, 111, 112]. Studies have reported issues such as long working hours, absenteeism, and the use of public resources for private patients [68], with abuse largely attributed to the government's failure to adequately implement the policy and discipline those who violate it [113]. In response to these challenges, the Department of Public Service and Administration (DPSA) issued a 2016 directive [65] that explains the legal framework of the RWOPS policy and provides instructions on the application and approval process. The 2020 guidelines [114] (detailed instructions to support the implementation of the 2016 directive) aim to enhance understanding and improve the management of RWOPS (permitted MJH) among employees. In 2024, the 2024 directives [67] were issued to address changing circumstances. However, there remains a lack of empirical studies on RWOPS since the 2016 directive and 2020 guidelines, and challenges of inconsistent implementation and poor monitoring persist [115]. Taylor and Kahn [66] suggest that when properly regulated, RWOPS can benefit both healthcare professionals and patients, improving skills retention and resources in the public sector, but effective monitoring is essential to prevent interference with public sector duties.

2.5.3. Permitted without restrictions

In terms of self-regulation, social norms and cultural expectations play a significant role in encouraging healthcare professionals, such as medical doctors, to uphold ethical standards in their conduct, rather than relying solely on government-imposed regulations [12]. There is a shared expectation to follow rules, supported by peer oversight [116] and professional bodies that assist in enforcing those expectations [38], which discourages individuals from exploiting the system. Self-regulation approaches tend to be more effective in HICs with a culture that values ethics, strong peer oversight, and robust professional statutory bodies, compared to LMICs where morale to uphold ethical standards is often low, professional bodies are weak, and private sectors are poorly regulated [9, 12]. For successful self-regulation and the cultivation of ethical behaviour, a culture that values ethics, strong peer oversight [116], professional bodies, civil society, independent review systems, and accessible reporting channels are essential [9, 12].

2.5.4. Other regulatory approaches

Previous research studies have suggested that when examining incentive mechanisms for public-sector physicians who practise privately, it might be beneficial to consider non-monetary incentives in addition to monetary incentives [12]. A 2007 qualitative study [51] of 20 doctors in Peru found that stricter regulation of MJH could help retain public sector medical doctors and maintain patient care standards,

although its small scale and focus on only medical doctors limit its applicability. A 2017 study [117] reviewing 15 prohibitive policy options for regulating MJH among doctors in Iran found that a combination of regulatory approaches, starting with softer measures to minimise the impact on doctors' jobs and financial security, was most effective. It highlighted that successful strategies involved a mix of interventions, such as income ceilings and improved public sector working conditions, rather than solely legal restrictions. However, the study's limitations include its qualitative nature, the focus on only six expert opinions, and the exclusion of frontline medical doctors' perspectives.

2.5.5. Research gaps

Empirical research on MJH regulation in the health sector remains scarce, many studies on MJH regulation have been reviews [12, 38, 39], descriptive studies [8, 50] and theoretical modelling studies [37, 106]. Furthermore, there is currently no empirical research on the effects of these combinations of regulatory interventions among health professionals, nor their preferences regarding the different combinations of regulatory interventions. As previously stated, MJH is allowed in South Africa under specified restrictions, however, there is a paucity of studies on the RWOPS policy and the preferences of health professionals for various combinations of regulatory interventions. MJH is a common practice in both LMICs and HICs and is influenced by multiple factors depending on the country's context. Overall, there are gaps under each of the objectives of this study. Most studies are dated, only focus on one profession, and are not in the South African context.

2.6. Literature review summary and knowledge gaps

Table 3 summarises the existing knowledge, the knowledge gaps, and how this PhD addresses these gaps for each objective

Table 3: Literature review summary and knowledge gaps.

PhD objective	What is known	Knowledge gaps	Scholarly contribution
Objective 1 Explore the perspectives of stakeholders on the implementation of RWOPS policy as a regulatory mechanism for MJH.	• Reports of non-compliance with the RWOPS policy by health professionals [68, 94, 112] as well as poor monitoring in public hospitals [115].	• No published studies on the implementation of the RWOPS policy following the provisions of the directives and guidelines on the policy • Insufficient evidence of compliance among health professionals	• The findings generated from this objective will be used to make recommendations for the improvement of the RWOPS policy implementation process in public hospitals
Objective 2 Explore the experiences of public sector medical doctors, professional nurses and rehabilitation therapists concerning MJH.	• Numerous reports of abuse by health professionals [68, 94, 112]. • Qualitative studies on MJH are mainly from HICs and are only on doctors [11, 41]and nurses [40]. • Qualitative studies on MJH in SA focused on retention among medical specialists [35, 94] and also MJH among critical care nurses [118].	• Lack of recent empirical studies on the experiences of medical specialists and nurses with MJH in SA. • Paucity of information on the experiences of rehabilitation therapists.	• This objective will provide updated insights on MJH among SA's public sector doctors and nurses. • One of the first studies to explore MJH among rehabilitation therapists.
Objective 3 Describe the extent of different forms of MJH among public sector doctors, professional nurses and rehabilitation therapists.	• MJH is common among doctors [7, 41] and nurses [40]. • The forms of MJH vary across different professional groups [29, 47, 80-85].	• Current studies on MJH prevalence are dated in SA • Paucity of studies among rehabilitation professionals • No cross-professional comparison studies in the South African context	• This objective will provide an update on the extent and forms of MJH in South Africa for medical specialists and nurses. • It will provide new information on the extent of MJH among rehabilitation therapists.
Objective 4 Determine the factors influencing multiple job holding.	• The factors that drive MJH are complex and entail individual and health system-level factors [24, 40, 41, 91].	• Lack of studies on factors that influence MJH among rehabilitation therapists. • Dated information on doctors and nurses in SA. • There are no studies that compare the influencing factors across different health professional groups.	• This objective will provide evidence on the factors influencing MJH among the three professional groups • The evidence generated can be used to determine if and how interventions to address MJH can be made.
Objective 5 Investigate the relative trade-offs between different incentives and restrictions to influence MJH.	• There are multiple regulatory approaches for MJH [12, 39] • MJH is inadequately regulated, especially in LMICs [12, 39]. • Literature is predominantly focused on medical doctors [119, 120].	• Studies that compare regulatory approaches are mainly systematic reviews and are dated • Previous DCEs have focused on doctors' preferences for private sector work. • Lack of DCEs examining health professionals' preferences for different MJH regulatory mechanisms.	• One of the first DCEs to examine the preferences of professionals for various MJH regulatory measures. • The findings will provide empirical evidence on the preferences of three professional groups for different MJH regulatory mechanisms and inform MJH policy recommendations.

CHAPTER 3: METHODOLOGY

3.1. Introduction

This chapter provides an overview of the research methodology. Detailed descriptions of the methods used for each component are included in the respective papers (Chapters 4 to 8), as this thesis is by publication. Section 3.2 covers the conceptual framework, while section 3.3 details the study setting and section 3.4. outlines the steps taken to ensure an ethical approach during the PhD study. Section 3.5 presents an outline of the methodologies used in the PhD study. Sections 3.6 to 3.7 focus on the qualitative component of the PhD, and sections 3.8 to 3.9 elaborate on the quantitative component. In section 3.10, there is an explanation of how the components of the PhD study were integrated. Sections 3.11 to 3.12 discuss potential biases, study limitations, and the steps taken to address them.

3.2. Conceptual framework

The conceptual framework of the PhD **Figure 1** draws on the classical microeconomic labour theory of MJH [16-19], Russo and colleagues' framework on MJH among medical doctors [29], Betts' organisational theory on moonlighting [89], Sutinen and Kuperan's socio-economic theory of regulatory compliance [116] and the health labour market approach [73].

3.2.1. A brief overview of the framework and each theory

The Classical microeconomic labour theory of MJH (**Table 1** in section **2.4.1**.) posits that individuals may pursue a second job to supplement their income due to limitations on earnings in their primary role or for non-monetary reasons, such as acquiring new skills [16-19] The study applied microeconomic labour theory to explore the factors influencing MJH.

Russo *et al*'s framework [29] (**Table 1**) suggests that the health system governance and market structure significantly influence the forms and prevalence of MJH. The PhD used Russo *et al*'s framework to explore how local factors shape multiple job holding among health professionals.

Betts'[89] organisational theory on moonlighting proposes that MJH participation is influenced by various organisational, occupational, environmental, and individual factors (**Table 1**).

Environmental factors also reflect the labour market factors influencing MJH. The labour market of relevance in this study is the South African health labour market, which is composed of health care provided by the public and private health sector [56]. The health labour market includes health professionals who vary by occupational category and whether they are specialised. Factors like salary, working conditions, and environment significantly influence workers' decisions on how much time to

spend working, whether to work in the public or private sector, or both, and whether to work in urban or rural areas [73].

Incorporating Betts' theory, the study extends Russo *et al*'s framework by highlighting how organisational, occupational, and environmental factors shape MJH participation. These elements, along with individual factors, contribute to a broader socio-economic context influencing health professionals' decisions to engage in MJH in South Africa. In this study, Betts' theory was applied alongside microeconomic labour theory to examine the broader factors influencing MJH among health professionals and to explore the experiences of those engaged in MJH.

Sutinen and Kuperan's [116] socio-economic theory of regulatory compliance suggests that an individual's decision to adhere to regulations (compliance) is influenced not only by anticipated economic costs and benefits, such as penalties or rewards, but also by moral obligations (personal ethics), social influences (social norms), and the perceived legitimacy of regulatory authorities. The theory emphasises that illegal gains significantly affect regulatory compliance, as individuals weigh the benefits of non-compliance against the risks of detection. It argues that substantial illegal gains encourage non-compliance, particularly in contexts with weak enforcement. Furthermore, the theory asserts that effective regulatory systems must go beyond strict enforcement; they should cultivate fairness, trust, and community support, as these elements are pivotal in promoting voluntary adherence to rules [116]. In this study, Sutinen and Kuperan's theory, along with Betts' theory, were used to explore the implementation of the RWOPS policy in public hospitals.

These theories were chosen because they offer a multifaceted view of MJH in the South African context. Classical microeconomic labour theory explains individual decision-making around income. Russo et al.'s framework provides insight into system-level and governance drivers. Betts' organisational theory illuminates institutional and workplace dynamics. Sutinen and Kuperan's regulatory theory explores compliance with RWOPS policy, while the health labour market framework connects MJH to structural conditions of South Africa's plural health system. Together, these theories address micro-, meso-, and macro-level factors that influence MJH, essential for answering the research questions.

3.2.2. Description of the conceptual framework

Figure 1 presents the conceptual framework for this PhD. The conceptual framework significantly shaped the conceptualisation of this PhD, particularly in defining the research objectives, guiding the overall methodological approach, and informing the development of data collection tools.

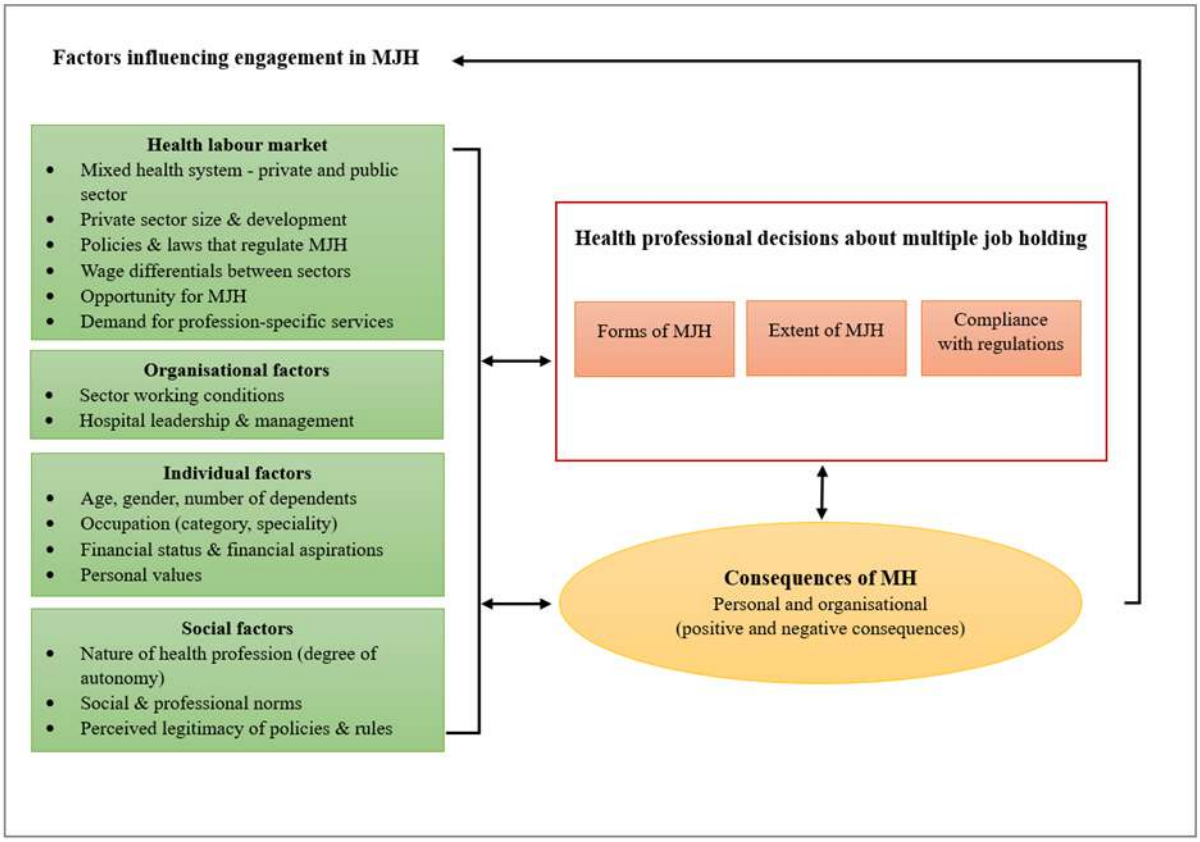


Figure 1: PhD conceptual framework for the analysis of MJH among public sector health.
Adapted from: Russo and colleagues' framework on MJH among medical doctors [29], the classical microeconomic theory of MJH [16-19], Betts' organisational theory on moonlighting [89], Sutinen and Kuperan's socio-economic theory of regulatory compliance [116] and health labour market approach [73].

This study posits that a health professional's decision to engage in MJH is shaped by a complex interaction of the health labour market, organisational, individual and social factors that influence the forms and extent of MJH, as well as compliance with regulations. The health labour market creates the structural conditions that enable MJH, with a mixed health system offering opportunities across both public and private sectors. The wage differentials between sectors and demand for profession-specific services influence engagement in MJH [89]. Health sector governance includes policies or laws that regulate and/or permit MJH, which in turn affects individual health professional decision-making.

At the organisational level, sector-specific working conditions, hospital leadership and management practices, and the overall management of health professionals affect MJH practice and regulation of MJH. The extent to which hospitals effectively monitor and manage MJH among health professionals plays a crucial role in shaping compliance with policies. Individual factors, such as age, gender, dependents, financial status, financial aspirations and professional occupation, determine a health professional's motivation for MJH [89]. Social factors also play a role, with social and professional

norms, the perceived legitimacy of MJH policies and rules, and the nature of the individual health profession influencing compliance. Perceptions of policy legitimacy or governance failures influence individual compliance. These interacting factors shape the forms and extent of MJH and determine how professionals balance their roles and time across sectors to maximise utility, whether in terms of income or fulfilment. The personal and health system consequences of MJH can change how health professionals view their primary jobs [89]. This altered perspective may either promote or limit further engagement in MJH as well as influence compliance with MJH regulations.

3.3. Study setting

The research was conducted in public sector hospitals in the South African provinces of Gauteng (GP) and Mpumalanga (MP) (**Figure 2**). Although Gauteng is the smallest of South Africa's nine provinces [121], it contains the greatest proportion of the country's population, with around 15,2 million people (25.8%) living there [122]. GP is the country's economic hub, contributing more than 34.8% of the gross domestic product [121]. Mpumalanga is South Africa's second-smallest province, and it is mainly rural [123], with 4.5 million people (7.8%) living there [122]. Geographic proximity, budgetary, and logistical issues influenced the study setting selection. Gauteng and Mpumalanga have 35 and 33 public hospitals, respectively. Specialised psychiatric and tuberculosis facilities were excluded in both provinces. As a result, the study included 56 public hospitals, 28 in Gauteng and 28 in Mpumalanga.

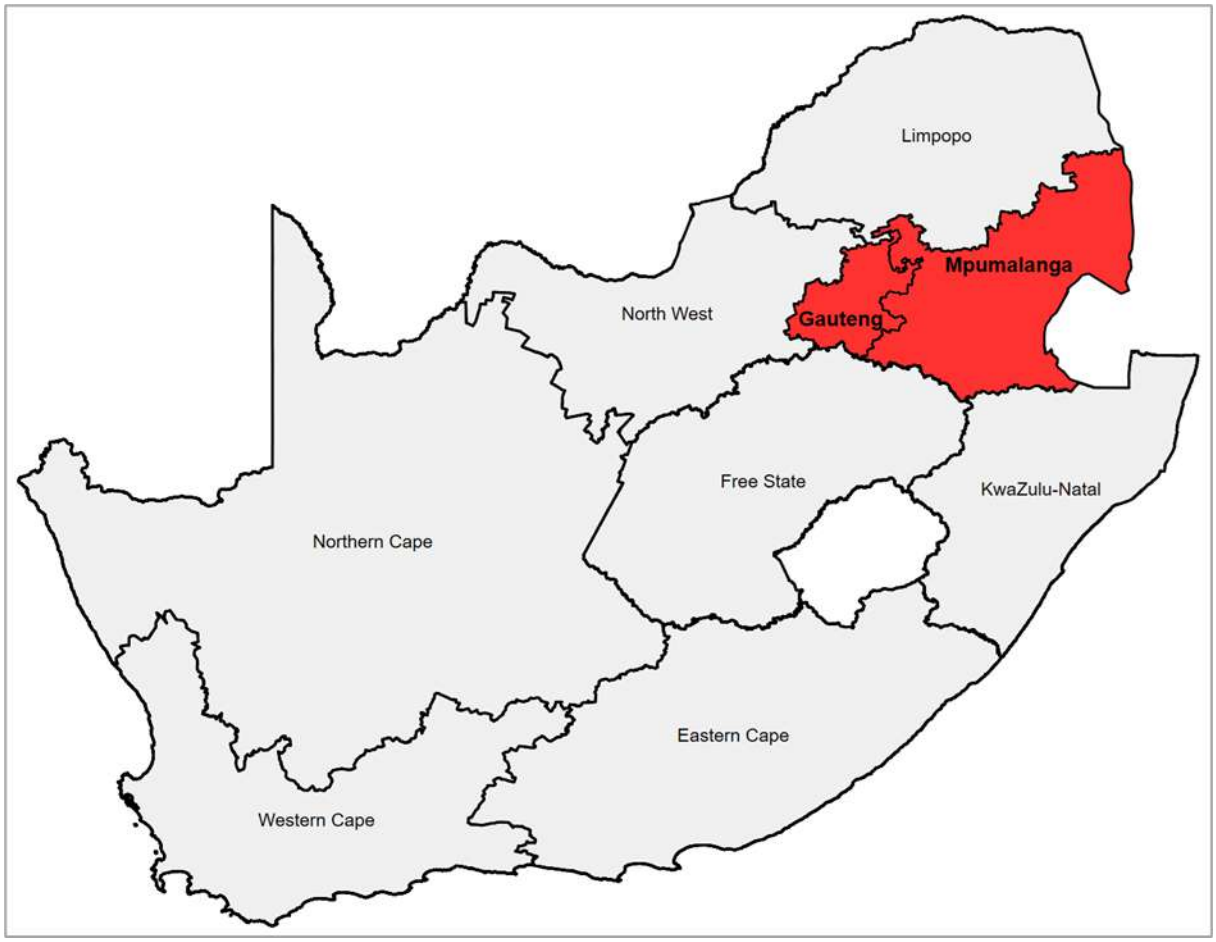


Figure 2: Map of the Provinces of South Africa

3.4. Ethical considerations in research and research ethics

3.4.1. Ethical considerations

In accordance with the Singapore Declaration, this research study adhered to the four principles of honesty, accountability, professionalism, and stewardship [124]. The steps taken to ensure an ethical research approach during the PhD study are presented in **Table 4**. Ethical clearance was obtained from the Human Research Ethics Committee (Medical) at the University of the Witwatersrand in Johannesburg [#M210262] (Annexure 1), health facilities in Gauteng (Annexure 2) and the Mpumalanga Provincial Health Research and Ethics Committee (Annexure 3). Authorisation was also obtained from the relevant health facilities in Mpumalanga provinces (4). Prior to participation, all study participants were provided with detailed information regarding the study's objectives (Annexure 5-7), and their informed consent was duly obtained (Annexure 8-10). Individual interviews were conducted in private to ensure confidentiality. Anonymity and confidentiality were strictly upheld, with no use of personal names on any data collection instruments. Interview responses were coded, and only aggregate survey data was presented in the final report.

Table 4: Steps taken to ensure ethical research approach.

Ethical principle	Steps taken by the researcher
Ethics approval	• Granted by the University of the Witwatersrand HREC (Medical)
Permission from facilities	• Granted by all relevant authorities in GP and MP
Informed consent	• Obtained from all study participants following a detailed explanation of the study
Confidentiality & anonymity	• Personal identifiers were not used on all data collection tools. • Participant responses were coded and grouped as themes. • Data kept on a password-protected computer, that can only be accessed by the principal researcher (PR).
Non-maleficence	• Obtain informed consent to ensure participants understand the study's purpose and potential risks. • Ensured confidentiality by protecting participants' privacy and securing their data.
Beneficence	• Participants were informed that there were no direct benefits to participating in the study.
Research integrity	• Compiled a detailed research protocol and procedure manual. • Training of fieldworkers, including onsite training at the hospitals. • Adherence to the study protocol and quality assurance maintenance.

3.5. Overview of PhD methods

This study follows a pragmatic paradigm, using the methods that best address the research questions. The pragmatic research paradigm was chosen to address the complex nature of MJH among health professionals by combining subjective insights from qualitative data with objective evidence from quantitative methods. This approach offers methodological flexibility, allowing the study to generate practical, context-specific knowledge that is both meaningful and applicable to real-world challenges [125]. In this cross-sectional, analytical study, a mixed-methods approach was used, incorporating both qualitative and quantitative methodologies, as detailed in **Table 5**. Mixed methods research is defined as an approach *"in which the investigator collects and analyses both quantitative and qualitative data, integrates the two forms of data, and draws interpretations based on the combined strengths of both"* [126] page 5. The aim of using mixed-methods research was to gain a comprehensive understanding and knowledge of MJH, thereby strengthening the study's conclusions. Qualitative methods provide rich, contextual insights into the motivations and experiences of health professionals, while quantitative methods allow for generalisability and statistical analysis of MJH patterns. The findings from the

qualitative interviews were used to inform the development of attributes and levels for the discrete choice experiment (DCE), as well as to refine the broader survey design. Integration occurred at the design phase, where qualitative findings informed the quantitative instrument (DCE and survey), and again during interpretation, where findings from both strands were considered together. Although interconnected, the study comprised three main components aimed at fulfilling the research objectives.

- **Component 1:** Interviews with key informants and document reviews
- **Component 2:** In-depth interviews with respondents from the three health professional groups
- **Component 3:** Health professional survey with an embedded discrete choice experiment.

Table 5: Overview of research methods and outputs

Objective	Framework or theory	Design	Methods	Research Outputs
1. Explore the perspectives of stakeholders on the implementation of the RWOPS policy as a regulatory mechanism for multiple job holding in Gauteng and Mpumalanga. ***Component 1***	Sutinen and Kuperan's socio-economic theory of regulatory compliance Bett's organisational theory on moonlighting	Qualitative	• Semi-structured interview with 33 key informants • Document review of policies documents and guidelines • Thematic analysis using MAXQDA	**Chapter 7** The ambiguity of regulating multiple job holding in South Africa: stakeholder perspectives on the implementation of the Remunerative Work Outside the Public Service Policy. *Health Policy and Planning* (planned submission)
2. Explore the experiences of public sector medical doctors, professional nurses and rehabilitation therapists concerning MJH. ***Component 2***	Russo and colleagues' framework on MJH Classical microeconomic labour theory Bett's organisational theory on moonlighting	Qualitative	• Semi-structured interviews with 30 health professionals • Thematic analysis using MAXQDA	**Chapter 5** Exploring multiple job holding among medical doctors, professional nurses and rehabilitation therapists in South Africa *Frontiers in Health Services* (planned submission)
3. Describe the extent of different forms of MJH among public sector doctors, professional nurses and rehabilitation therapists. ***Component 3***	Classical microeconomic labour theory Bett's organisational theory on moonlighting	Quantitative Cross-sectional survey	• Self-administered questionnaire including a DCE among 1397 health professionals. • Quantitative analysis using Stata® 17.	**Chapter 4** Examining the extent, forms and factors influencing multiple job holding among medical doctors, professional nurses, and rehabilitation therapists in two South African provinces: a cross-sectional study *BMJ Open* (published)
4. Determine the factors influencing multiple job holding. ***Component 3***				**Chapter 8** Perspectives of doctors, nurses and rehabilitation therapists in Gauteng and Mpumalanga provinces' public hospitals on remunerative work outside of the public service. *SAMJ* (published)
5. Investigate the relative trade-offs between different incentives and restrictions to influence MJH. ***Component 3***				**Chapter 6** Preferences of medical doctors, professional nurses and rehabilitation therapists for multiple job holding regulation – a discrete choice experiment *PLoS One* (published)

3.6. Qualitative components of the PhD study

The qualitative components aimed to explore MJH and its regulation among public sector health professionals. Findings from qualitative components were used to refine the survey tool and inform the selection of final attributes and levels in the DCE. Additionally, the qualitative component helped to add depth to the interpretation of the quantitative findings. The methodology specifics for the qualitative components can be found in **Chapters 5 and 7**. This section offers an overview of the methodologies employed.

3.6.1. Component 1: Key informant interviews and document reviews

The overview of the key informant interviews and document reviews used to explore **objective 1** are shown in **Figure 3**. Additional information can be found in **Chapter 7**. A purposive national sample of 30 key informants (KIs) was drawn from key stakeholder groups, including health departments, hospital management, regulatory councils, professional bodies, trade unions, and academic experts in MJH. Snowball sampling added three more, bringing the total to 33. While national representation was intended, most KIs were from Gauteng (21), Mpumalanga (10), and the Western Cape (2).

The key informants represented the following sectors: civil society (n=2), statutory bodies (n=2), academia and research (n=3), hospital management (n=10), human resources (n=2), professional associations (n=4), provincial government (n=3), national government (n=3), private hospital groups (n=2), and nursing agencies (n=2).

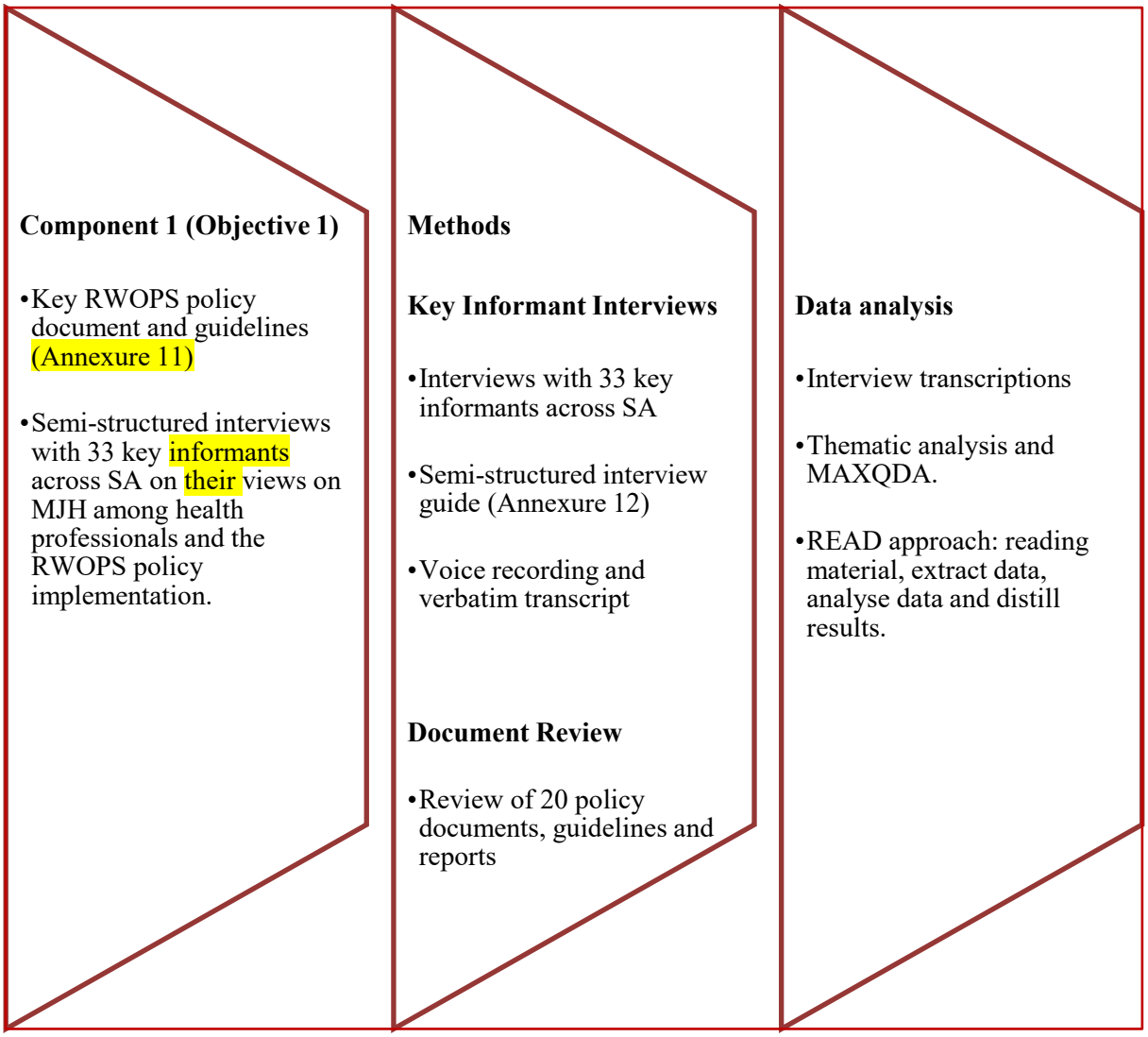


Figure 3: Overview of the key informant interviews.

3.6.2. Component 2: In-depth interviews with three health professional groups

The overview of the in-depth interviews with the three health professional groups used to explore **objective 2** is shown in **Figure 4**. Additional information can be found in **Chapter 5**. In Gauteng and Mpumalanga, the principal researcher purposively recruited health professionals from three categories: doctors, nurses, and rehabilitation therapists, with current or past MJH experience. Within the rehabilitation group, two participants were selected from each sub-discipline: physiotherapy, occupational therapy, and speech therapy and/or audiology. Snowball sampling added 14 participants, resulting in a total of 30 in-depth interviews. The sample was evenly split between the provinces (15 per province) and comprised 8 doctors, 10 nurses, and 12 rehabilitation therapists.

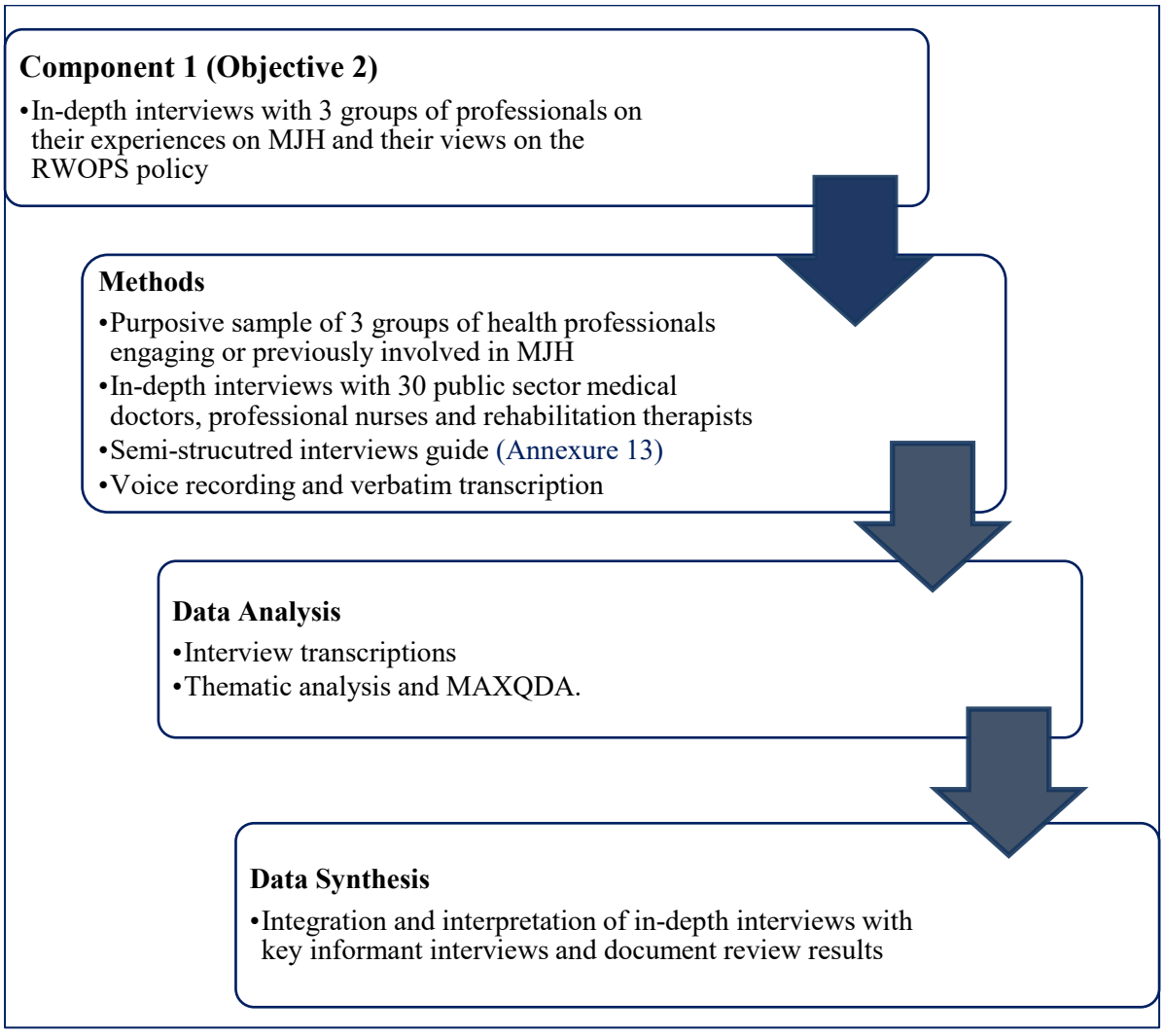


Figure 4: Overview of the individual in-depth interviews.

3.7. Data management and analysis of the qualitative components

The qualitative data obtained from the interviews were transcribed verbatim by an external transcription company. Following this, the researcher cross-checked the transcripts against the original recordings to

ensure accuracy, and to correct possible errors. This resulted in engagement with and immersion in the data. Both the voice recordings and transcripts from the interviews were securely stored on a password-protected computer.

The transcripts were used for inductive analysis through thematic analysis [127], with additional support from MAXQDA 2022. The principal researcher (PR) and the two supervisors individually reviewed and coded three different key informant transcripts and three different in-depth interview transcripts. A preliminary meeting was held to review codes and to develop potential sub-themes, and overarching themes. Once consensus was reached on initial codes and themes, the PR proceeded to analyse the remaining data, using a blend of manual coding and MAXQDA 2022. Manual coding facilitated detailed, interpretive engagement with the data, while MAXQDA supported efficient organisation, retrieval, and refinement of codes. These complementary processes were reconciled through ongoing reflection and comparison between manual notes and software outputs to ensure consistency and depth in theme development. A summary table was then created for further discussion. Subsequently, the PR and two supervisors convened a meeting to discuss further insights into the phenomenon of MJH in the South African context and revised the themes and sub-themes. **Table 6** shows an overview of the steps taken in the data analysis of the interviews.

Table 6: Steps taken in data analysis of the interviews

Steps	Description
1. Coding	• Independent reading of six transcripts • Independent inductive coding of six transcripts
2. Discussion of codes	• Presentation of codes by each researcher • Discussion of codes • Agreement on codes
3. Reviewing codes	• The PR further reviewed the codes, examining recurring patterns, contradictions, outliers, and similarities. • Developed a table of themes and sub-themes
4. Discussion of themes	• The PR and two supervisors reviewed the themes and sub-themes • Agreed on sub-themes and themes
5. Comparing themes to the conceptual framework	• The PR and two supervisors had two workshops to discuss the following: - Constructs arising from the qualitative data. - Similarities and differences of constructs to those from the framework and theories - Revision of themes and sub-themes
6. Further discussion of insights	• The PR and two supervisors held five meetings to discuss: - MJH in the SA context - Refine themes and sub-themes
7. Application of revised themes	• The PR applied the final themes to the interview data

3.7.1. Trustworthiness and rigour

The study employed Lincoln and Guba's criteria for rigour [128]. Rigour was ensured through engagement with and immersion in the data during processes of data cleaning, coding, and re-coding, thereby enhancing the credibility of the study results. Using a semi-structured interview guide enhances trustworthiness by ensuring consistent data collection across participants, improving dependability. Its flexibility allows for an in-depth exploration of responses, enhancing credibility. Additionally, the interview guide ensures alignment with research objectives, supporting confirmability. Triangulation of the findings from interviews, document reviews, and the survey ensured the credibility and confirmability of the study. Additionally, the inclusion of direct quotes from participants in generating themes further contributed to the study's confirmability. The PR and two supervisors established an inter-coder agreement, and themes were validated during the data analysis phase, enhancing the dependability of the study findings. The large purposive sample of key informants and different groups of health professionals provided diverse perspectives on MJH, improving the transferability of the study results. Furthermore, detailed descriptions of the results and triangulation of data from different sources strengthened the study's transferability.

3.8. Quantitative components of the PhD study

The purpose of the quantitative components was to describe the extent of different forms of MJH, determine the factors influencing MJH (Chapter 4) and investigate the relative trade-offs between different incentives and restrictions (Chapter 6) to influence MJH among public sector medical doctors, professional nurses, and rehabilitation therapists in Gauteng and Mpumalanga.

3.8.1. Component 3: Health professional survey with an embedded discrete choice experiment

The overview of the health professional survey which included a discrete choice experiment (DCE) to examine **objectives 3, 4** and **5** is shown in **Table 7**. Additional information can be found in **Chapters 4 and 6.**

Table 7: Overview of health professional survey

Survey component	An overview of the survey
Study setting	• 14 public hospitals in GP • 15 public hospitals in MP
Study design and study population	• Cross-sectional survey • Full-time/permanently employed public sector health professionals - Medical doctors - Professional nurses - Rehabilitation therapists
Sample size and sampling strategy	• Medical doctors (n=552), equally distributed across GP and MP • Professional nurses (n=502), equally distributed across GP and MP • Rehabilitation therapists - GP (n=237) - MP (n=157) • Multi-stage sampling technique (Annexure 14a-b) - Public hospital in GP (n=11) and in MP (n=11) - Focus on six clinical disciplines - Wards/units randomly selected - All doctors and nurses in selected wards who consented were surveyed - All rehabilitation therapists at the 22 hospitals were surveyed - Additional hospitals added to meet rehabilitation therapists' numbers
Data collection tool	• Self-administered questionnaire (Annexure 15) with the following sections: - Demographic information - Current Employment - Choice task (DCE) - Multiple job holding - Extend and forms/types of MJH (RWOPS) - Reasons for MJH (RWOPS) - Reasons for staying in the public sector - Reasons for not doing MJH (RWOPS) - Permission and rules on RWOPS (MJH)
Pilot study	Piloted with 64 health professionals from two non-sampled hospitals.
Data collection	• The PR developed a procedure manual (Annexure 16) for fieldwork and conducted fieldwork training for four days. • Two fieldworkers were recruited to assist with fieldwork. • Study participants were approached, and the study was explained using the information sheet (Annexure 7) • Study participants completed an anonymous survey on a tablet using REDCap, which included an electronic consent form (Annexure 10). • Off-line survey only used during internet connectivity disruptions. • Data was collected for four months in 15 Gauteng and 14 Mpumalanga hospitals.
Data analysis of survey data	• Stata® 17

Survey component	An overview of the survey
	• We used Stata's svy commands for complex cluster sampling adjustments. • Analyses conducted separately for each health professional group • Weighted to reflect population distributions between the two provinces and between the hospital types within the group • Adjusted for the sampling strategy • Prevalence and time in additional jobs compared by health professional category • MJH forms classified based on self-employment or employment by others • Weighted ranking analysis conducted using reverse order scoring for the importance of reasons for MJH • Multiple logistic regression to determine factors associated with MJH **Further analysis of DCE data** • Stata® 17 • Generalized multinomial logit model used for analysis - Relative importance of attributes - Interaction models: stratified analysis to assess group heterogeneity. - Marginal willingness to pay to determine the extra salary needed to offset attributes that reduced utility. - Scenario modelling to predict the uptake of various hypothetical jobs.

3.9. Data management and quality assurance of the quantitative components

Participants completed the anonymous survey on a tablet using REDCap (Research Electronic Data Capture), a secure online platform designed for creating and overseeing surveys and databases [129]. The PR audited the completed data daily on REDCap to verify the quality of the data. During data collection, the survey data was backed up weekly on a password-protected computer. Survey data was exported from the REDCap server and imported into Stata® 17 for cleaning and analysis.

3.10. Integration of key qualitative and quantitative results

The qualitative and quantitative results were integrated using triangulation. Triangulation is a technique employed to enhance the credibility and validity of research outcomes [130]. Combining theories, methods, or researchers in a research study through triangulation can help mitigate biases that may arise from relying solely on a single method or researcher [131]. Three types of triangulation were used: theory, methodological and data triangulation. Theory triangulation was achieved by applying and interpreting findings through multiple theoretical lenses, namely the classical microeconomic labour theory [16-19], Bett's organisational theory [89] and Sutinen and Kuperan's socio-economic theory of

regulatory compliance [116], along with Russo and colleagues' framework [29]. This approach allowed for a more nuanced interpretation of the findings from the qualitative interviews.

Methodological triangulation was achieved by using a combination of qualitative and quantitative methods [132]: key informant interviews, in-depth interviews with health professionals, and a survey that included a DCE. These methods were purposefully sequenced and linked; for example, qualitative findings informed the development of the DCE and the survey, enhancing coherence and complementarity across methods.

Data triangulation involved drawing on multiple data sources[132] across professional cadres and geographic settings. Qualitative data were collected from health professionals and key informants across South Africa, while quantitative data were obtained through surveys and the DCE. The inclusion of three professional groups (doctors, nurses, and rehabilitation therapists) across two provinces (urban Gauteng and rural Mpumalanga). The triangulation was undertaken to enhance the depth, credibility, and generalisability of the findings [133].

3.11. Possible bias, limitations of the study, and measures to address them

This section outlines possible biases, limitations of the study, and measures taken to mitigate the possible biases and address the limitations.

3.11.1. Possible sources of bias

Selection bias

Selection bias occurs when the sample chosen or obtained in a study is no longer representative of the overall population. It can be introduced if the selection of participants is restricted to a group with higher or lower chances of engaging in MJH or if the non-MJH and MJH groups differ in ways that predict the outcome [134]. The study employed a thorough multi-stage sampling approach with a substantial sample size of 1397 participants, ensuring a broad and representative sample across different hospital categories and the three health professional groups within GP and MP provinces. This method helped mitigate selection bias by capturing the diversity within these regions, although it may not fully represent the other provinces, given their unique characteristics.

Non-response bias

Non-response bias occurs when data cannot be collected from selected participants due to refusal to participate, incomplete responses, or failure to establish contact. The extent of non-response can impact the reliability and validity of survey data [135]. Mitigation strategies for non-response during data collection included establishing rapport with participants, scheduling data collection at convenient times, and providing a unique REDCap survey link for those unable to participate in person. These

measures resulted in response rates exceeding 80%, ensuring representativity despite some instances of non-response.

Social desirability bias

Social desirability bias is when individuals portray themselves and their social environment in a manner that they believe is socially acceptable, yet it may not fully represent their actual reality [136]. During the interviews and surveys, health professionals may have understated their involvement in MJH. The questions in the interview guides were neutrally framed, avoiding leading language, to encourage honest reflections and minimise social desirability bias. Using a self-administered questionnaire along with thoughtful wording of questions helped to mitigate the risk of social desirability bias. Furthermore, all participants in the study were assured of confidentiality and anonymity, with only aggregated data being disclosed in reporting.

Observer bias

The researcher's existing knowledge about the subject influences the way questions are posed or how the researcher evaluates the subject, which is known as observer bias [134]. To mitigate this, I engaged in reflexivity, critically reflecting on my assumptions about MJH and my perspective as a health professional. Involving two supervisors in the analysis required me to examine the findings from different perspectives to establish an inter-coder agreement. Triangulating data from different sources, practising reflexivity, and establishing inter-coder agreement helped minimise observer bias.

3.12. Limitations of the study and measures to address them.

3.12.1 Cross-sectional study design

The limitation of cross-sectional studies is that they examine data from a population at a specific point in time [134]. However, this was the best approach as it allowed large amounts of data to be collected cost-effectively. The findings provide a valuable estimate of MJH and establish a foundation for future research. Subsequent studies can investigate how this estimate evolves and could also identify the factors that impact these changes.

3.12.2. Generalisability to other provinces

The study was conducted across two South African provinces, Gauteng (GP) and Mpumalanga (MP) which may not be representative of other provinces in the country. I chose GP and MP to be representative of an urban and a rural province respectively, and do not think that the experiences of MJH are substantively different in these two provinces.

3.12.3. Covid-19 pandemic

The fieldwork took place shortly after the COVID-19 pandemic, potentially influencing opportunities for MJH among the three health professional categories. To address this, the data collection tools were modified to incorporate questions about the pandemic's effect on MJH participation, these questions were included in the interview schedules and survey questionnaire, making it possible to determine if participants engaged in MJH because of the pandemic.

3.13. Strengths and scholarly contribution of the PhD

This study's strengths lie in its mixed-methods approach, combining qualitative and quantitative techniques for a comprehensive exploration of MJH regulation. The qualitative component provided in-depth insights into MJH motivations and the implementation of the RWOPS policy, incorporating diverse perceptions from stakeholders across South Africa and health professionals from urban and rural settings. The quantitative approach provided empirical evidence on the forms, extent, and contributing factors of MJH. Additionally, the quantitative aspect ensured rigour through a large sample size, a multistage sampling strategy, and high survey response rates (84.3% for the survey and 83.9% for the DCE), minimising bias. The use of a DCE to quantify the trade-offs between MJH policy interventions across the three professional groups is innovative and using a robust G-MNL model analysis further strengthens the methodology. The study's comparative approach across three professional groups is novel and provides useful insights.

The strengths and scholarly contributions of the PhD study are detailed in Chapter 9.

Open access Original research

BMJ Open

Examining the extent, forms and factors influencing multiple job holding among medical doctors, professional nurses and rehabilitation therapists in two South African provinces: a cross-sectional study

Busisiwe Precious Matiwane ,[1] Duane Blaauw,[2] Laetitia Chairmaine Rispel[1]

To cite: Matiwane BP, Blaauw D, Rispel LC. Examining the extent, forms and factors influencing multiple job holding among medical doctors, professional nurses and rehabilitation therapists in two South African provinces: a cross-sectional study. *BMJ Open* 2023;**13**:e078902. doi:10.1136/bmjopen-2023-078902

► Prepublication history and additional supplemental material for this paper are available online. To view these files, please visit the journal online (http://dx.doi.org/10.1136/bmjopen-2023-078902).

Received 15 August 2023
Accepted 30 November 2023

Check for updates

© Author(s) (or their employer(s)) 2023. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ.

[1]Centre for Health Policy & South African Research Chairs Initiative (SARChI), School of Public Health, University of the Witwatersrand, Johannesburg, South Africa
[2]Centre of Health Policy, School of Public Health, University of the Witwatersrand, Johannesburg, South Africa

Correspondence to
Ms Busisiwe Precious Matiwane;
busisiwe.matiwane@wits.ac.za

ABSTRACT

Objective Multiple job holding (MJH), or working in more than one paid job simultaneously, is a common characteristic of health labour markets. The study examined the extent (prevalence), forms and factors influencing MJH among public sector medical doctors, professional nurses and rehabilitation therapists in two South African provinces.

Design A cross-sectional, analytical study.

Setting 29 public sector hospitals in the Gauteng and Mpumalanga provinces of South Africa.

Participants Full-time public sector medical doctors, professional nurses and rehabilitation therapists.

Results We obtained an overall response rate of 84.3%, with 486 medical doctors, 571 professional nurses and 340 rehabilitation therapists completing the survey. The mean age was 39.9±9.7 years for medical doctors, 43.7±10.4 years for professional nurses and 32.3±8.7 years for rehabilitation therapists. In the preceding 12 months, the prevalence of MJH was 33.7% (95% CI 25.8% to 42.6%) among medical doctors, 8.6% (95% CI 6.3% to 11.7%) among professional nurses and 38.7% (95% CI 31.5% to 46.5%) among rehabilitation therapists. Medical doctors worked a median of 20 (10–40) hours per month in their additional jobs, professional nurses worked 24 (12–34) hours per month and rehabilitation therapists worked 16 (8–28) hours per month. Private practice was the most prevalent form of MJH among medical doctors and rehabilitation therapists, compared with nursing agencies for professional nurses. MJH was significantly more likely among medical specialists (OR 4.3, p<0.001), married professional nurses (OR 2.4, p=0.022) and male rehabilitation therapists (OR 2.4, p=0.005).

Conclusion The high prevalence of MJH could adversely affect the care of public sector patients. The study findings should inform the review and revision of existing MJH policies.

STRENGTHS AND LIMITATIONS OF THIS STUDY

⇒ The study used a rigorous multistage sampling strategy with a large sample size to ensure that the results are representative of doctors, nurses and therapists from the study provinces.
⇒ It conducted a comparative analysis of three health professional groups.
⇒ The focus on two South African provinces may not be representative of the entire country.
⇒ The focus on six core disciplines may overestimate multiple job holding prevalence.

INTRODUCTION

Multiple job holding (MJH), a common feature of labour markets,[1] refers to individuals holding more than one paid job simultaneously.[2] MJH is well documented in various health systems among medical doctors and nurses,[3] with the dominant focus on additional jobs in the private sector.[4–6]

MJH enables health professionals to generate extra income and increase their job fulfilment.[7–9] MJH could assist in recruiting and retaining health professionals, with scarce skills in the public health sector.[4 10] However, health professionals engaging in MJH spend less time in their primary jobs, which influences the availability of quality health services in the public health sector and the achievement of universal health coverage.[11–13] Therefore, there is increased scholarly and policy focus on the occurrence,[14–18] determinants[2 9] and consequences of MJH.[1 19 20]

Notwithstanding several theoretical models on MJH, existing evidence points to diversity in its prevalence, and in the profiles and motives of individuals who engage in MJH.[1 2] Most MJH studies have focused on doctors and nurses, with MJH prevalence ranging from 25% to 69% for doctors[4 6 7 21 22] and 5% to 80% for nurses.[23–29] The decision to

BMJ Open: first published as 10.1136/bmjopen-2023-078902 on 20 December 2023. Downloaded from http://bmjopen.bmj.com/ on May 2, 2024 by guest. Protected by copyright.

engage in MJH among different health professionals is influenced by various factors, including legislation, the health labour market, and the availability and types of secondary jobs.[11 30] Although financial factors are often the primary reason for MJH,[2 5 17 22] non-pecuniary incentives such as status and recognition, control over work and professional opportunities are also contributing factors.[31]

South Africa (SA) spends 8.5% of its gross domestic product (GDP) on health.[32] However, the health system is characterised by a resource-constrained public health sector that accounts for 4.1% of GDP spending and provides care to around 84% of the population.[32] A well-established private health sector[33] accounts for 4.4% of GDP spending and covers the remaining 16% of the population.[32] There are also inequities in the distribution and skills mix of health professionals between the public and private health sectors.[34] In 2019, nurses accounted for 56% of the total public sector workforce, doctors accounted for 8.6% and therapists for 1%, with variations by province and health professional category.[35] In many low-income and middle-income countries (LMICs), unreasonably low public sector salaries are linked to MJH among health professionals.[5 7] However, comparatively the SA public health sector has good fiscal space, public sector health professionals' salaries are higher than in most other African countries,[35] and they get paid regularly. The Public Service Amendment Act (Section 30) of SA makes provision for MJH referred to as remunerative work outside of the public service .[36] Hence MJH is legal, provided that prior approval has been obtained from the relevant authority.

Although there is some evidence in SA on MJH and its negative consequences for health workforce outcomes among doctors and nurses,[10 23 37 38] there are no data on MJH among rehabilitation therapists. Furthermore, studies on MJH among doctors and nurses are dated.[10 23 37 39] This paper aims to address these knowledge gaps by examining the extent, forms and factors influencing MJH among public sector medical doctors, professional nurses and rehabilitation therapists in two South African provinces, and the time spent in their secondary jobs.

METHODS

Study setting

The study was conducted in the Gauteng province (GP) and Mpumalanga province (MP) of SA. GP is an urban province and the economic hub of SA, while MP is predominately a rural province. Geographical proximity, financial and logistical considerations also influenced the provincial selection.

Study design and population

A cross-sectional survey was undertaken between July 2022 and October 2022 in 14 hospitals in GP and 15 hospitals in MP, as part of a larger mixed-methods doctoral study. The study population consisted of full-time public sector medical doctors (generalists and specialists), professional nurses (4 years of training) and rehabilitation therapists (occupational therapists, physiotherapists, speech therapists, audiologists and dual speech therapists/audiologists). Health professionals in their internship and community service were excluded because they are not independent practitioners. Medical doctors, professional nurses and rehabilitation therapists in executive management positions and registrars (medical specialists in training) were also excluded. The audiologists, speech therapists and dual speech therapists/audiologists were combined into one subgroup.

Sample size estimation

The sample size was calculated based on the required precision of MJH prevalence using the formula for a single proportion with a 95% CI, a precision of 0.1, and a power of 80%. We used the MJH prevalence estimate of 35% for doctors,[40] 28% for nurses[23] and 30% for therapists assuming a prevalence close to that of doctors and nurses. A finite population correction (FCP) was applied to the calculation for therapists because of their small total population size. The calculated sample sizes were further adjusted for clustering using a design effect of 1.5,[41 42] resulting in 552 doctors and 502 nurses split equally between the two provinces, as well as 237 and 152 for therapists in Gauteng and Mpumalanga, respectively.

Sampling strategy

The sampling frame consisted of public sector doctors, nurses and therapists from the 28 hospitals in GP and 28 hospitals in MP. A multistage sampling strategy was employed. First, a stratified cluster sample of 11 hospitals from each province was selected. Four categories of hospitals were considered: district, regional, tertiary and central. The hospitals were chosen at random from each stratum within each province using a sampling proportional to size strategy.[43] In GP, five district, two regional, two tertiary and two central hospitals were selected. As MP does not have central hospitals, six district, three regional and two tertiary hospitals were selected. The required number of doctors, nurses and therapists was calculated for the categories of hospitals in Gauteng and Mpumalanga (see online supplemental file 1).

At each sampled hospital, the six clinical disciplines of focus were anaesthesia, orthopaedics, paediatrics, obstetrics and gynaecology, internal medicine, and surgery. Hospital wards were chosen randomly from each discipline and all doctors and nurses in the selected wards were invited to participate in the study until the required sample size from each hospital was achieved. All therapists who met the inclusion criteria were eligible to participate at the 22 hospitals, because of small population sizes. Four additional hospitals in MP and three additional hospitals in GP were selected to meet the required sample size for therapists.

BMJ Open: first published as 10.1136/bmjopen-2023-078902 on 20 December 2023. Downloaded from http://bmjopen.bmj.com/ on May 2, 2024 by guest. Protected by copyright.

Data collection

At each of the selected hospitals, the research team explained the purpose, the voluntary and confidential nature of the study to eligible participants. Consenting study participants completed an anonymous survey, which contained an electronic consent form on a tablet using REDCap (Research Electronic Data Capture).[44] The self-administered questionnaire collected information about demographics, occupation, hospital overtime duties and engagement in MJH during the preceding 12 months, the type and location of the additional job, time spent in and the reasons for engaging in additional jobs. For this, participants were asked to rank their top three reasons in order of importance from a list of 19 reasons for MJH and 9 financial reasons for MJH. The questionnaire was piloted with 72 health professionals from 2 non-sampled hospitals, 1 in each province and then further refined. The list of MJH reasons was amended and ambiguous sections were revised. The questionnaire took between 10 and 20 minutes to complete. Health professionals who consented but were too busy were sent a unique, electronic survey link for completion.

Data analysis

Survey data were analysed using Stata V.17. We used the Stata svy commands to adjust for the complex cluster sampling design. The National Department of Health provided data on the total number of public sector health professionals by province and hospital category. The population distribution between the three groups was 22.7% doctors, 73.4% nurses and 4.0% therapists, whereas the distribution in the sample was 34.8% doctors, 40.9% nurses and 24.3% therapists to allow comparison. All analyses were done separately for each health professional group and weighted to reflect the population distribution between the two study provinces and between different hospital types within the group. The analysis also adjusted for the stratification, clustering within hospitals and using an FPC for therapists.

The prevalence and total time spent in the additional job were calculated and compared by health professional category. The different forms of MJH were classified based on whether a person was self-employed (eg, independent private practice) or worked for others (eg, nursing agency). A weighted analysis of the ranking data was done by scoring the three ranks in reverse order and calculating the mean score, so that a higher mean rank indicates higher importance. Bivariate logistic regression was used to identify variables independently associated with MJH. Characteristics with a p value below 0.2 in the bivariate analysis or those of theoretical value were included in the final multiple logistic regression model. Except for the bivariate analysis, all statistical tests employed a 5% significance level.

Patient and public involvement

Patients and the public did not participate in the planning, design, execution or reporting of this study.

RESULTS

Sociodemographic characteristics

A total of 1658 health professionals were approached to participate; 48 refused and 213 health professionals did not complete the survey sent via email, yielding an 84.3% response rate. Overall, 1397 health professionals completed the survey and were included in the analysis. Table 1 summarises the weighted sociodemographic characteristics of the study participants. The mean age of doctors was 39.9±9.7 years, of nurses 43.7±10.4 years and rehabilitation therapists 32.3±8.7 years. The mean years in their respective professions was 14.7±9.0 for doctors, 10.6±9.1 for nurses and 9.1±7.9 years for therapists. A specialisation was held by approximately 44.4% of doctors and 32% of nurses. In the preceding 12 months, 92.2% of doctors, 56.6% of nurses and 31.2% of therapists worked overtime.

Extent of MJH

In the preceding 12 months, the prevalence of MJH was the highest among the therapists (n=132) at 38.7% (95% CI 31.5% to 46.5%), followed by doctors (n=164) at 33.7% (95% CI 25.8% to 42.6%) and nurses (n=49) at 8.6% (95% CI 6.3% to 11.7%). The prevalence of MJH or overtime was highest among the medical doctors at 92.9%, followed by nurses at 59.4% and therapists at 54.8%.

Overall, doctors spent a median (IQR) time of 20 (10–40) hours per month in their additional jobs, nurses spent 24 (12–34) hours per month and therapists spent 16 (8–28) hours per month. There were significant differences in the prevalence of MJH (χ^2, p<0.001) and the time spent on the additional jobs (Kruskal-Wallis, p=0.015) between the three professional groups.

In table 2, there was a significant difference (p<0.001) in the prevalence of MJH between medical practitioners (18.9% (95% CI 11.1% to 30.2%) and medical specialists (52.2% (95% CI 42.7% to 61.6%). The prevalence of MJH was 8.7% (95% CI 6.2% to 12.1%) among general nurses and 8.5% (95% CI 5.1% to 13.8%) among specialist nurses, with no statistically significant differences between the two groups (p=0.922). There were significant MJH prevalence variations between medical specialties, p=0.002, but no significant differences between nurse specialties, p=0.160. There were significant differences in the prevalence of MJH among the different categories of therapists, p=0.010. Orthopaedic surgeons had the highest MJH participation at 77.4%, compared with 63.5% for surgeons, and 59.0% among anaesthesiologists. The three nursing specialties with the highest MJH were occupational health at 25.3%, child nursing at 20.3% and critical care nursing at 11.2%. The prevalence of MJH was highest among physiotherapists at 53.0%, followed by speech therapists and audiologists at 32.0% and occupational therapists at 29.5%.

Nature and forms of MJH

MJH was divided into two categories: clinical work 289 (83.8%) and non-clinical work 56 (16.2%). Clinical work

BMJ Open: first published as 10.1136/bmjopen-2023-078902 on 20 December 2023. Downloaded from http://bmjopen.bmj.com/ on May 2, 2024 by guest. Protected by copyright.

Table 1 The sociodemographic characteristics of the study participants

Characteristics	Medical doctors n (%)/mean (±SD)	Professional nurses n (%)/mean (±SD)	Rehabilitation therapists n (%)/mean (±SD)
Total sample n=1397	486 (34.8%)	571 (40.9%)	340 (24.3%)
Age	39.9±9.7	43.7±10.4	32.3±8.7
Gender			
Male	265 (54.5%)	47 (8.2%)	57 (16.8%)
Female	217 (44.7%)	522 (91.3%)	277 (81.5%)
Other	4 (0.8%)	3 (0.5%)	6 (1.8%)
Marital status			
Single	154 (31.7%)	262 (45.9%)	202 (59.4%)
Married/living with a long-term partner	302 (62.1%)	231 (40.4%)	129 (37.9%)
Divorced/separated	22 (4.5%)	41 (7.2%)	5 (1.5%)
Widowed	8 (1.7%)	37 (6.5%)	4 (1.2%)
Children			
No	146 (30.0%)	51 (8.9%)	188 (55.3%)
Yes	340 (70.0%)	520 (91.1%)	152 (44.7%)
No of children	2.2±1.2	2.3±0.9	2.0±2.3
No of dependents	4.2±3.8	5.2±3.5	2.4±2.7
Born in SA			
No	104 (21.4%)	2 (0.4%)	10 (3.0%)
Yes	382 (78.6%)	569 (99.6%)	330 (97.0%)
Province			
Gauteng	396 (81.5%)	445 (77.9%)	242 (71.2%)
Mpumalanga	90 (18.5%)	126 (22.1%)	98 (28.8%)
Years of practice	14.7±9.0	10.6±9.1	9.1±7.9
Specialty			
No	270 (55.6%)	388 (68.0%)	–
Yes	216 (44.4%)	183 (32.0%)	–
Clinical head of the department			
No	426 (87.7%)	505 (88.4%)	278 (81.8%)
Yes	60 (12.3%)	66 (11.6%)	62 (18.2%)
Worked overtime			
No	37 (7.8%)	253 (44.3%)	234 (68.8%)
Yes	448 (92.2%)	318 (55.6%)	106 (31.2%)
Hospital category			
District	102 (21.0%)	147 (25.7%)	103 (30.3%)
Regional	140 (28.8%)	155 (27.1%)	79 (23.2%)
Tertiary	79 (16.3%)	82 (14.4%)	46 (13.5%)
Central	165 (33.9%)	187 (32.8%)	112 (33.0%)

SA, South Africa.

refers to direct patient care and/or treatment, whereas non-clinical work does not involve patient contact, such as teaching or owning a business. Doctors and therapists worked mostly in their own private practices and as locums in the practices of others (Figure 1). Nurses worked mainly through nursing agencies. Non-clinical MJH among doctors included business ownership (5.5%), consulting (2.4%) and working in academia (1.8%). Non-clinical MJH among therapists included owning a business (12.1%), working in academia (3.0%) and consulting (0.8%). Non-clinical forms of MJH for nurses include business ownership (30.5%) and consultancy (8.3%).

BMJ Open: first published as 10.1136/bmjopen-2023-078902 on 20 December 2023. Downloaded from http://bmjopen.bmj.com/ on May 2, 2024 by guest. Protected by copyright.

Table 2 Proportion of MJH by specialty and category of therapists

	Total no	% with multiple jobs	Statistical tests
Doctors			
Medical practitioners	270	18.9	χ^2, p<0.001
Medical specialist	216	52.2	
Total	486		
Medical specialists			
Orthopaedic surgery	30	77.4	χ^2, p=0.002
Surgery	60	63.5	
Anaesthesia	51	59.0	
Paediatrics	21	41.8	
Physician	32	27.5	
Obstetricians and gynaecology	19	22.1	
Other	5	17.3	
Total	216		
Nurses			
General nurses	388	8.7	χ^2, p=0.922
Specialist nurses	183	8.5	
Total	571		
Nurse specialists			
Occupational health nursing	14	25.3	χ^2, p=0.160
Child nursing	20	20.3	
Critical care nursing	25	11.2	
Orthopaedic nursing	26	10.5	
Other	98	2.3	
Total	183		
Category of rehabilitation therapist			
Physiotherapists	124	53.0	χ^2, p=0.010
Speech therapists and audiologists	88	32.0	
Occupational therapists	129	29.5	
Total	340		

MJH, multiple job holding.

Reported reasons for MJH

Table 3 shows each professional category's top 10 reasons for MJH in descending order. The main reason for MJH for all three professional groups was to supplement their salaries. The second and third reason for doctors and therapists was career pathing and earning money from a passion project (turning a hobby into a business). Nurses' second and third reasons were earning money from a passion project and getting exposure in a different sector. Non-financial reasons for involvement in MJH included exposure to a different sector for all the categories of health professionals. The top two financial reasons for doctors and therapists for MJH were insufficient government salaries and financial freedom. Nurses' top two financial reasons were financial freedom and paying off debts (table 3).

Sociodemographic factors associated with MJH

The multiple regression results are shown in table 4. Overall model fit was low, indicating that sociodemographic factors are not the main determinants of MJH in our context. Doctors with a specialty had 4.3 (95% CI 2.5 to 7.5) higher odds of MJH participation than those without. Doctors in urban GP had a 1.9 (95% CI 1.1 to 3.3) greater chance of participating in MJH than doctors in rural MP. Doctors with dependents had 3.1 (95% CI 1.2 to 7.9) higher odds of participating in MJH than those without. Nurses who were married had 2.4 (95% CI 1.1 to 5.1) times the odds of MJH engagement as those who were single. Nurses who were clinical HODs had a lower likelihood (0.1 (95% CI 0.0 to 0.8) of MJH participation than those who were not. Male therapists had (2.4 (95% CI 1.3 to 4.4) times the likelihood of MJH participation than females.

DISCUSSION

This is one of the first comparative studies that examined the extent, forms and factors influencing MJH among medical doctors, professional nurses and rehabilitation therapists. In this study, therapists (38.7%) and doctors (33.7%) had a significantly higher prevalence of MJH than nurses (8.6%), with medical specialists (52.2%) and physiotherapists (53%) having exceptionally high MJH prevalence. Doctors and therapists worked mostly in their private practices, with nurses working through nursing agencies. All three professional groups worked overtime in their primary jobs. The health professionals identified mostly financial reasons for MJH participation, but non-financial reasons were also recognised as important. For medical doctors, MJH was explained by specialty, province and having dependents. For nurses, MJH was only explained by marital status and managerial position. For therapists, MJH was only explained by gender.

We found an MJH prevalence of 33.7% among doctors, with one in two (52.2%) medical specialists reporting MJH compared with 18.9% of the medical practitioners. The specialties with the highest MJH engagement were orthopaedic surgeons, surgeons and anaesthesiologists. The high earnings in SA's private sector are significant drivers of MJH, particularly for surgeons and anaesthetists, who are well compensated and in high demand.[10] Notwithstanding differences in methodology, context and health labour markets, the reported high MJH prevalence among specialists in our study is similar to that found in diverse country settings, ranging from 37% in Denmark to 100% of specialists in Austria.[4 5 8 45–48] However, a 2019 South African national study estimated an MJH prevalence of 35% among medical specialists.[40] Although the differences could be due to study setting and methodology,

BMJ Open: first published as 10.1136/bmjopen-2023-078902 on 20 December 2023. Downloaded from http://bmjopen.bmj.com/ on May 2, 2024 by guest. Protected by copyright.



Figure 1 Forms of MJH among the three professional groups.

the high reported prevalence of MJH, combined with the various forms of MJH among doctors raises concerns about the availability of and access to specialist services in the public health sector. Medical doctors work in different facilities in different locations,[49] MJH reduces their presence, quantity and quality of services in the public health sector, which in turn places more strain on nurses and other health professionals.[7 45] Furthermore, given the present staff shortages and intense workload in the public sector,[50] the 92.2% of doctors working overtime implies that doctors are already overworked in their primary jobs, raising questions about the standard of care given to public sector patients. Future research should focus on the patient care consequences of MJH.

The MJH prevalence among nurses at 9% was lower than the 28% MJH prevalence found in a 2010 survey conducted in SA among nurses.[23] However, Rispel *et al*[23] also reported that 56.0% (95% CI 51.4% to 60.4%) of nurses did overtime similar to the 55.6% found in our study. Nurses working overtime at their primary jobs is a form of MJH in SA, as reported in other studies.[25 51] As nurses can choose to work overtime when opportunities arise, the MJH prevalence among nurses in this study could be considered as 59.4%. The high proportion of nurses doing overtime could affect public sector service delivery as working long hours leads to exhaustion, which influences patient care negatively.[52] The situation is different for doctors and therapists. Most doctors are required to work overtime as part of their employment contract to provide after-hours medical cover. Notwithstanding provincial variation for rehabilitation therapists, generally overtime is not part of their employment contracts.

Our survey found that 39% of therapists engaged in MJH and 31.2% worked overtime. We could not find comparable studies on MJH among therapists in other countries. Considering that therapists account for only 1% of the health workforce the high proportion of therapists working in MJH raises concerns about access to already scarce rehabilitation services for public sector patients.[53] Furthermore, in SA MJH is one of the factors thought to contribute to insufficient financial resource allocation to meet the operational needs of the public health system.[50] It was reported that allowing medical doctors and allied professionals (therapists fall into this category) to engage in MJH after working hours in the private sector results in staff shortages and the payment of salaries for services not performed when MJH became exploited due to ineffective and unmanageable monitoring by public sector hospital management.[50]

Financial motives were a significant motivator for MJH participation, similar findings were reported in a systematic review on MJH, which reported financial reasons to be the main driver with career development being the second most important and psychological fulfilment regarded as the third most important.[2] In our study, career pathing (growth) was the second most important reason for engagement in MJH among doctors and therapists. In our study, health professionals owned private practices and businesses, supporting their financial motives for MJH and their desire for career development. Evidence suggests that MJH acts as a tool for career growth by providing opportunities for skills development, testing self-employment and experiencing meaning through autonomy and task diversity.[2] In SA, MJH permitted medical specialists to establish private practice relationships while still earning a full-time government salary, making the transition to the private sector less expensive when they decide to move completely.[10]

The highly ranked financial motives are linked to having dependents, being married and male. The study findings suggest that medical doctors with dependents engage in MJH to supplement their income and support their families. Married nurses could engage in MJH due to joint financial obligations, while traditional gender roles and the responsibility to provide for their families could explain the motivation of male therapists to engage in MJH. Medical specialists were more likely to participate in MJH, as reported in other studies.[14 54] Similar to other studies,[15 17 55] MJH was more likely to occur among doctors in urban GP.[56] Nurses in management positions had a lower chance of engaging in MJH, as was also found in a study among nurses in China,[57] and because they are

BMJ Open: first published as 10.1136/bmjopen-2023-078902 on 20 December 2023. Downloaded from http://bmjopen.bmj.com/ on May 2, 2024 by guest. Protected by copyright.

Table 3 Top 10 reasons for MJH and all financial reasons for MJH

Reasons for MJH								
	Medical doctors N=486			Professional nurses N=571			Rehabilitation therapists N=340	
	Mean rank score	Ranking		Mean rank score	Ranking		Mean rank score	Ranking
Supplement my salary	0.60	1	Supplement my salary	0.12	1	Supplement my salary	0.77	1
Opportunity for growth/career pathing	0.24	2	Earn money from a passion project	0.06	2	Opportunity for growth/career pathing	0.35	2
Earn money from a passion project	0.15	3	Get exposure to a different sector.	0.05	3	Earn money from a passion project	0.19	3
Get exposure to a different sector	0.14	4	Job variety offered by the additional job	0.04	4	Get exposure to a different sector.	0.17	4
Maintain my skills	0.13	5	Opportunity for growth/career pathing	0.03	5	Test out private sector work	0.11	5
Job fulfilment	0.10	6	Be my own boss	0.03	6	There is a demand for my skills	0.10	6
There is a demand for my skills	0.09	7	Build clientele	0.03	7	Maintain my skills	0.10	7
Being able to provide quality services to clients	0.08	8	Learn new skills	0.03	8	Job fulfilment	0.10	8
Coping strategy	0.08	9	Job fulfilment	0.02	9	Learn new skills	0.08	9
Test out private sector work	0.08	10	Test out private sector work	0.02	10	Being able to provide quality services to clients	0.06	10
Financial reasons for MJH								
	Medical doctors N=486			Professional nurses N=571			Rehabilitation therapists N=340	
	Mean rank score	Ranking		Mean rank score	Ranking		Mean rank score	Ranking
Insufficient government salary	0.33	1	Financial freedom	0.10	1	Insufficient government salary	0.63	1
Financial Freedom	0.31	2	Pay off debts	0.10	2	Financial freedom	0.37	2
Generate wealth	0.28	3	Support my extended family	0.08	3	Improve my standard of living/lifestyle	0.32	3
Pay off debts	0.27	4	Insufficient government salary	0.08	4	Pay off debts	0.25	4
Support my extended family	0.21	5	Generate wealth	0.05	5	Generate wealth	0.24	5
Improve my standard of living/lifestyle	0.20	6	Improve my standard of living/lifestyle	0.04	6	Support my extended family	0.15	6
Educate my children/others	0.17	7	Educate my children/others	0.03	7	Support my immediate family	0.14	7
Support my immediate family	0.17	8	Support my immediate family	0.02	8	Fund my studies/courses	0.11	8
Fund my studies/courses	0.03	9	Fund my studies/courses	0.01	9	Educate my children/others	0.04	9

MJH, multiple job holding.

BMJ Open: first published as 10.1136/bmjopen-2023-078902 on 20 December 2023. Downloaded from http://bmjopen.bmj.com/ on May 2, 2024 by guest. Protected by copyright.

Table 4 Multiple logistic regression analysis of MJH among health professionals

		Medical doctors				Professional nurses				Rehabilitation therapists			
	Variable	OR	95% CI	P<0.05		OR	95% CI	P<0.05		OR	95% CI	P<0.05	
Gender	Female	–				–				–			
	Male	1.7	(1.0 to 2.8)	0.068		1.7	(0.5 to 5.4)	0.390		2.4	(1.3 to 4.4)	0.005	*
Marital status	Single	–				–				–			
	Married	1.3	(0.7 to 2.3)	0.434		2.4	(1.1 to 5.1)	0.022	†	1.4	(0.8 to 2.4)	0.218	
Dependents	≤0	–				–				–			
	≥1	3.1	(1.2 to 7.9)	0.021	†	0.4	(0.1 to 2.2)	0.279		0.9	(0.5 to 1.5)	0.579	
Specialty	No	–				–							
	Yes	4.3	(2.5 to 7.5)	p<0.001	‡	1.2	(0.5 to 2.6)	0.73					
Clinical HOD	No	–				–				–			
	Yes	0.9	(0.4 to 1.9)	0.808		0.1	(0.0 to 0.8)	0.027	†	0.5	(0.3 to 1.0)	0.052	
Province	Mpumalanga	–				–				–			
	Gauteng	1.9	(1.1 to 3.3)	0.022	†	1.4	(0.7 to 2.7)	0.357		1.0	(0.6 to 1.8)	0.877	
Hospital category	District/regional	–				–				–			
	Tertiary/central	0.9	(0.5 to 1.5)	0.640		1.3	(0.6 to 2.8)	0.445		0.9	(0.5 to 1.4)	0.556	
N		486				571				340			
R^2		0.1379				0.0584				0.0306			

Variables single, divorced/separated and widowed combined to form 'single'.
*p<0.01.
†p<0.05.
‡p<0.001.
–, base category ; MJH, multiple job holding.

assuming additional, complex roles[58] that may limit the time for MJH.

The limitations of our study include being conducted in two South African provinces that may not be representative of the entire country, focusing only on six disciplines which may have overestimated MJH prevalence, and using a cross-sectional study design that measured MJH at a point in time. The fieldwork was conducted soon after the COVID-19 pandemic, which might have affected the opportunities for MJH among the three health professional categories. However, our findings can serve as a valuable recent estimate of MJH and a baseline for future studies. To ensure that the results are representative of doctors, nurses, and therapists from the two study provinces, our study used a rigorous multistage sampling strategy with a large sample size. Additionally, we obtained a high response rate (84.3%), which limits bias.

Since MJH is widespread, policy-makers and managers should seek strategies to reduce the potential negative repercussions to the public health sector. These strategies encompass the review and revision of MJH regulations, staff supervision to ensure patient access to health professionals and addressing the non-financial reasons for MJH (table 3), including continuing professional development[10] and career pathing.

CONCLUSION

The study contributes to and advances the discourse on MJH in SA, as well as in other LMICs. It provides empirical evidence of and a comparison of MJH among doctors, nurses and therapists in SA. In SA we show a prevalence of MJH, the variations by health professional group and hours spent in additional jobs. Considering the high MJH prevalence and the poor monitoring of MJH described in SA, MJH could adversely affect the care of public sector patients. The study findings should inform the review and revision of existing MJH policies.

Acknowledgements We are grateful for the participants who participated in the survey and for the hospital management who facilitated the study. Lindiwe Somwahla and Pako Papers are thanked for assisting with fieldwork.

Contributors All authors conceptualised the project and contributed to the study design, and instrument design and informed the study protocol. BPM piloted the tools and conducted fieldwork with support and guidance from LR and DB. LR and DB supervised the study. All authors contributed to the conceptual design of the analysis and the interpretation of the results. BPM conducted the statistical analyses and presentation of results. BPM developed the first draft of the manuscript. BPM, LR and DB provided important intellectual content, interpretation of results and policy recommendations. All authors reviewed, revised and approved the final manuscript. BPM is responsible for the overall content of the manuscript as a guarantor.

Funding This study was funded by the South African Research Chair Initiative (SARChI) of the National Research Foundation in South Africa (#102219), held by LR. The Wits Faculty of Health Sciences Research Committee Individual Research Grant 2021 contributed R12 000 to the study, award/grant number not applicable.

Disclaimer The views expressed in this study are those of the authors and not of the funders.

Competing interests None declared.

Patient and public involvement Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this research.

Patient consent for publication Not applicable.

BMJ Open: first published as 10.1136/bmjopen-2023-078902 on 20 December 2023. Downloaded from http://bmjopen.bmj.com/ on May 2, 2024 by guest. Protected by copyright.

Ethics approval This study involves human participants and was approved by Human Research Ethics Committee (Medical) of the University of the Witwatersrand in Johannesburg (M210262), Gauteng Provincial Health Research and Ethics Committee (GP_202104_019) and Mpumalanga Provincial Health Research and Ethics Committee (MP_202104_001). Participants gave informed consent to participate in the study before taking part.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement Data are available on reasonable request.

Supplemental material This content has been supplied by the author(s). It has not been vetted by BMJ Publishing Group Limited (BMJ) and may not have been peer-reviewed. Any opinions or recommendations discussed are solely those of the author(s) and are not endorsed by BMJ. BMJ disclaims all liability and responsibility arising from any reliance placed on the content. Where the content includes any translated material, BMJ does not warrant the accuracy and reliability of the translations (including but not limited to local regulations, clinical guidelines, terminology, drug names and drug dosages), and is not responsible for any error and/or omissions arising from translation and adaptation or otherwise.

Open access This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: http://creativecommons.org/licenses/by-nc/4.0/.

ORCID iD

Busisiwe Precious Matiwane http://orcid.org/0000-0002-4328-2285

REFERENCES

1 Conen W, Stein J. A panel study of the consequences of multiple Jobholding: enrichment and depletion effects. *Transfer: European Review of Labour and Research* 2021;27:219–36.
2 Campion ED, Caza BB, Moss SE. Multiple Jobholding: an integrative systematic review and future research agenda. *Journal of Management* 2020;46:165–91.
3 Hamandia-Güldenberg A. *Multiple job-holding Fact sheet Geneva*. Switzerland: International Labour Office. Information Sheet, 2004: WT–19.
4 García-Prado A, González P. Whom do physicians work for? an analysis of dual practice in the health sector. *J Health Polit Policy Law* 2011;36:265–94.
5 Russo G, McPake B, Fronteira I, *et al*. Negotiating markets for health: an exploration of physicians' engagement in dual practice in three African capital cities. *Health Policy Plan* 2014;29:774–83.
6 Jan S, Bian Y, Jumpa M, *et al*. Dual job holding by public sector health professionals in highly resource-constrained settings: problem or solution *Bull World Health Organ* 2005;83:771–6.
7 Ferrinho P, Van Lerberghe W, Fronteira I, *et al*. Dual practice in the health sector: review of the evidence. *Hum Resour Health* 2004;2:14.
8 Hipgrave DB, Hort K. Dual practice by doctors working in South and East Asia: a review of its origins, scope and impact, and the options for regulation. *Health Policy Plan* 2014;29:703–16.
9 Russo G, Fronteira I, Jesus TS, *et al*. Understanding nurses' dual practice: a Scoping review of what we know and what we still need to ask on nurses holding multiple jobs. *Hum Resour Health* 2018;16:14.
10 Ashmore J, Gilson L. Conceptualizing the impacts of dual practice on the retention of public sector specialists - evidence from South Africa. *Hum Resour Health* 2015;13:3.
11 McPake B, Russo G, Hipgrave D, *et al*. Implications of dual practice for universal health coverage. *Bull World Health Organ* 2016;94:142–6.
12 Sousa A, Scheffler RM, Nyoni J, *et al*. A comprehensive health labour market framework for universal health coverage. *Bull World Health Organ* 2013;91:892–4.
13 Global Health Workforce Alliance. A universal truth: no health without a workforce. World health Organisation (WHO) report; 2013. Available: https://www.researchgate.net/profile/Gilles-Dussault/publication/270561476_A_Universal_Truth_No_Health_Without_a_Workforce/links/626cf852b277c02187d7cbef/A-Universal-Truth-No-Health-Without-a-Workforce.pdf:1-104
14 Abera GG, Alemayehu YK, Herrin J. Public-on-private dual practice among physicians in public hospitals of Tigray national regional state, North Ethiopia: perspectives of physicians, patients and managers. *BMC Health Serv Res* 2017;17:1–8.
15 Bayat M, Salehi Zalani G, Harirchi I, *et al*. Extent and nature of dual practice engagement among Iran medical specialists. *Hum Resour Health* 2018;16:61.
16 Bayati M, Rashidian A, Zandian H, *et al*. Dual practice and multiple job holding among Iranian general practitioners: rate and effective factors. *Int J Health Plann Manage* 2020;35:799–807.
17 Do N, Do YK. Dual practice of public hospital physicians in Vietnam. *Health Policy Plan* 2018;33:898–905.
18 Khim K, Goldman LN, Shaw K, *et al*. Assessment of dual practice among physicians in Cambodia. *Hum Resour Health* 2020;18:18.
19 Eze BS, Jones M, Kyaruzi IS. Estimating the monetary value of hours lost to the Nigerian public Healthcare system when full-time government employee doctors engage in dual practice. *Health* 2023;15:215–38.
20 Engelbrecht M, Rau A, Nel P, *et al*. Emotional well-being and work engagement of nurses who moonlight (dual employment) in private hospitals. *Int J Nurs Pract* 2020;26:e12783.
21 Socha KZ, Bech M. Physician dual practice: a review of literature. *Health Policy* 2011;102:1–7.
22 Johannessen K-A, Hagen TP. Physicians' engagement in dual practices and the effects on labor supply in public hospitals: results from a register-based study. *BMC Health Serv Res* 2014;14:299.
23 Rispel LC, Blaauw D, Chirwa T, *et al*. Factors influencing agency nursing and moonlighting among nurses in South Africa. *Glob Health Action* 2014;7:23585.
24 Stephenson J. Exclusive: survey reveals anger and concern over agency rule. 2017. Available: https://wwwnursingtimesnet/news/workforce/exclusive-survey-reveals-anger-and-concernover-agency-rule/7016870article [Accessed 28 Mar 2017].
25 Portela LF, Rotenberg L, Waissmann W. Self-reported health and sleep complaints among nursing personnel working under 12 H night and day shifts. *Chronobiol Int* 2004;21:859–70.
26 Gupta N, Dal Poz MR. Assessment of human resources for health using cross-national comparison of facility surveys in six countries. *Hum Resour Health* 2009;7:22.
27 Tailby S. Agency and bank nursing in the UK national health service. *Work, Employment and Society* 2005;19:369–89.
28 Batch M, Windsor C. Nursing Casualization and communication: a critical Ethnography. *J Adv Nurs* 2015;71:870–80.
29 Hipple SF. Multiple Jobholding over the past two decades: monthly labor review: U.S Bureau of labor Statistics [Monthly Labour Review:21-32]. 2015. Available: https://heinonline.org/HOL/Page?handle=hein.journals/month138&div=24&g_sent=1&casa_token=frP6xh1-jCwAAAAA:bhJxaHn4sl6dvZio4NVTfgpmLdGToazxm1zntq14lsape0KaQuJTgZLmPxr59QMYiU3QBd9Wfg&collection=journals
30 High-Level Commission on Health Employment and Economic Growth. Working for health and growth: investing in the health workforce. In: *Report of the High-Level Commission on Health Employment and Economic Growth*. Geneva: World Health Organization, 2016.
31 Humphrey C, Russell J. Motivation and values of hospital consultants in South-east England who work in the national health service and do private practice. *Social Science & Medicine* 2004;59:1241–50.
32 Department of Health South Africa. White paper on national health insurance [Report No. 39506]. 2015. Available: https://www.gov.za/sites/default/files/gcis_document/201512/39506gon1230.pdf [Accessed 11 Dec 2015].
33 Edmeston M, Francis K. Beyond band-AIDS: reflections on public and private health care in South Africa. *The Journal of the Helen Suzman Foundation* 2012;67:41–6.
34 van Rensburg HCJ. South Africa's protracted struggle for equal distribution and equitable access - still not there. *Hum Resour Health* 2014;12:26.
35 National Department of Health. 2030 human resources for health strategy: investing in the health workforce for universal health coverage. Pretoria: government printers. 2020. Available: https://www.spotlightnsp.co.za/wp-content/uploads/2020/08/2030-HRH-strategy-19-3-2020.pdf
36 Department of Public Service and Administration. Public Service amendment Actno 30 of 2007. government printer Pretoria. 2007. Available: https://www.dpsa.gov.za/dpsa2g/documents/acts®ulations/PSAB%2030%20OF%202007-Section-by-section-explanation.pdf
37 Public Service Commission. *Remunerative work outside the public service: an investigation undertaken in the Gauteng Provincial Health Sector*. Pretoria: Public Service Commission, 2007.
38 Rispel LC, Blaauw D. The health system consequences of agency nursing and moonlighting in South Africa. *Glob Health Action* 2015;8:26683.

BMJ Open: first published as 10.1136/bmjopen-2023-078902 on 20 December 2023. Downloaded from http://bmjopen.bmj.com/ on May 2, 2024 by guest. Protected by copyright.

39 Bhengu BR. Exploring the critical care nurses' experiences regarding moonlighting. *Curationis* 2001;24:48–53.
40 Wishnia J, Strugnell D, Smith A, *et al*. The supply of and need for medical specialists in South Africa. In: *Cape Town: precept*. 2019.
41 Carlin JB, Hocking J. Design of cross-sectional surveys using cluster sampling: an overview with Australian case-studies. *Aust N Z J Public Health* 1999;23:546–51.
42 Dattalo P. *determining sample Size*. In: *Determining Sample Size: Balancing Power, Precision, and Practicality, Pocket Guides to Social Work Research Methods*. New York: Oxford academic, 2008.
43 Skinner CJ. Probability proportional to size (PPS) sampling. *Wiley* 2014:1–5.
44 Harris PA, Taylor R, Thielke R, *et al*. Research electronic data capture (Redcap) - A Metadata-driven methodology and Workflow process for providing Translational research Informatics support. *J Biomed Inform* 2009;42:377–81.
45 García-Prado A, González P. Policy and regulatory responses to dual practice in the health sector. *Health Policy* 2007;84:142–52.
46 González P. Should physicians' dual practice be limited? an incentive approach. *Health Econ* 2004;13:505–24.
47 Cheng TC, Joyce CM, Scott A. An empirical analysis of public and private medical practice in Australia. *Health Policy* 2013;111:43–51.
48 Alaref J, Awwad J, Araujo E, *et al*. To ban or not to ban? regulating dual practice in Palestine. *Health Systems & Reform* 2017;3:42–55.
49 McPake B, Russo G, Tseng F-M. How do dual practitioners divide their time? the cases of three African capital cities. *Social Science & Medicine* 2014;122:113–21.
50 Malakoane B, Heunis JC, Chikobvu P, *et al*. Public health system challenges in the free state, South Africa: a situation appraisal to inform health system strengthening. *BMC Health Serv Res* 2020;20:58.
51 Monteiro I, Chillida M de S, Moreno LC. Work ability among nursing personnel in public hospitals and health centers in Campinas--Brazil. *Work* 2012;41 Suppl 1:316–9.
52 Rispel LC. Exploring nursing policies, practice and management in South Africa. In: *December Research on the State of Nursing*. RESON: Workshop Report University of Witwatersrand, 2008.
53 Conradie T, Berner K, Louw Q. Rehabilitation workforce Descriptors: a Scoping review. *BMC Health Serv Res* 2022;22:1–14.
54 Miotto BA, Guilloux AGA, Cassenote AJF, *et al*. Physician's Sociodemographic profile and distribution across public and private health care: an insight into physicians' dual practice in Brazil. *BMC Health Serv Res* 2018;18:299.
55 Bayat M, Khalilnejad R, Akbari-sari A, *et al*. Factors associated with dual practice in surgery specialists: application of multi-level analysis on national Registry data. *Ijph* 2019;48.
56 Statistics SA. *Mid-year population estimates*. Statistics South Africa: Pretoria, 2017. Available: https://www.statssa.gov.za/publications/P0302/P03022019.pdf
57 Bai X, Wang A, Plummer V, *et al*. Using the theory of planned behaviour to predict nurse's intention to undertake dual practice in China: A Multicentre survey. *J Clin Nurs* 2019;28:2101–10.
58 Guo Y, Lam L, Luo Y, *et al*. Female nurses' burnout symptoms: no association with the hypothalamic-pituitary-thyroid (HPT) axis. *Psychoneuroendocrinology* 2017;77:47–50.

BMJ Open: first published as 10.1136/bmjopen-2023-078902 on 20 December 2023. Downloaded from http://bmjopen.bmj.com/ on May 2, 2024 by guest. Protected by copyright.

CHAPTER 5: EXPLORING MULTIPLE JOB HOLDING AMONG MEDICAL DOCTORS, PROFESSIONAL NURSES, AND REHABILITATION THERAPISTS

Busisiwe P. Matiwane[1]*, (https://orcid.org/0000-0002-4328-2285), Duane Blaauw[2] (https://orcid.org/0000-0002-0605-7134) and Laetitia C. Rispel[1] (https://orcid.org/0000-0001-7806-6331).

[1] Centre for Health Policy & South African Research Chairs Initiative (SARChI), School of Public Health, University of the Witwatersrand, Johannesburg, South Africa.
[2] Centre for Health Policy, School of Public Health, University of the Witwatersrand, Johannesburg, South Africa.

*Correspondence to Busisiwe P. Matiwane, Busisiwe.matiwane@wits.ac.za

Abstract

Background

South Africa has a dual health system with significant health professional shortages. Multiple job holding (MJH), having a second job in addition to your primary government job, is legal under prescribed conditions in South Africa. This study explores the experiences of various health professionals with MJH.

Methods

A qualitative study design was employed, which combined key informant interviews with stakeholders and in-depth interviews with public health sector medical doctors, professional nurses, and rehabilitation therapists. The stakeholders were from national and provincial governments, hospital management, health professions councils, professional associations, civil society, and academia. The health professionals were from public hospitals in Gauteng and Mpumalanga. The questions focused on the motives for MJH among health professionals. Data was voice-recorded, transcribed verbatim, and imported to MAXQDA 2022 for thematic and content analysis. We propose a revised theoretical framework for MJH to better capture the MJH nuances in this context.

Results

Financial motives, such as income supplementation, debt repayment, and lifestyle aspirations, drove MJH among health professionals, with dissatisfaction over public sector remuneration reinforcing this trend. The appeal of the private sector, characterised by higher earnings, resource availability, and incentives, further encouraged MJH. Secondary factors, including job variety, career growth, and professional fulfilment, played a reinforcing role. Additionally, inadequate management, weak accountability, and performance monitoring gaps in the public sector enabled health professionals to sustain employment in both sectors.

Conclusion

This study reveals the complex interplay of financial aspirations, career development motives, contextual factors, and management deficiencies contributing to MJH among South African health professionals. It underscores the necessity of enhancing public sector management through training hospital managers. These insights are crucial for policymakers addressing MJH in South Africa and other similar contexts.

Keywords

Multiple job holding, dual practice, RWOPS, South African health system, service delivery, human resources for health.

Key messages

1. Health professionals in the South African public sector engage in multiple job holding (MJH) primarily for financial motives that include income supplementation, debt repayment and aspirations for improved lifestyles.
2. Job variety, career growth, and professional fulfilment are secondary reasons for MJH, while exposure of health professionals to well-equipped and well-maintained private hospitals reinforces engagement in MJH.
3. A lucrative market for medical specialists, an opportunity for higher earnings, and a range of profession-specific incentives in the private hospital sector (e.g. faster payment systems for nurses) influence MJH.
4. Due to the lack of accountability and weak performance management systems in the public sector, health professionals are able to keep positions in both the public and private sectors.
5. The revised theoretical framework offers useful constructs to explore MJH among health professionals in South Africa and in other low-and middle-income countries.

5.1. Background

Health workforce performance, a key pillar of the Working for Health Action Plan, influences the ability of health systems to respond to shocks and to provide quality care [2]. However, low- and middle-income countries (LMICs) face significant health workforce challenges, including suboptimal performance, shortages, skills mismatches, and maldistribution [2]. Multiple job holding (MJH), defined as working in more than one paid job concurrently [24], is a prevalent aspect of global labour markets, gaining importance across economic sectors and occupations [137].

In diverse countries, public health sector medical specialists often work in the private sector to augment their earnings [9, 12, 29, 42, 138-140], encouraged by substantial income gaps between the public and private sectors [141]. Similarly, nurses frequently engage in MJH to supplement their public-sector incomes, but job fulfilment and flexibility have also been identified as important factors [40].

In exploring why individuals work multiple jobs, theories point to basic needs like additional income, risk management (the primary job is steady but low-paying, while the extra job is more inconsistent but pays more), and a preference for varied work [16-19]. Other theories consider the influence of organisations [89] and governance structures [29]. However, these theories predominantly originate in research from high-income countries, in the absence of robust labour force information from LMICs, especially those in sub-Saharan Africa.

In South Africa (SA), MJH among health professionals exists within a complex landscape shaped by various political and socio-economic factors. During apartheid, most black people were confined to discriminatory wage labour, with deliberate, racialised exclusion from professional work, except in nursing and the "homelands" [142]. The post-apartheid era, marked by transformative government policies [142], saw the rise of a black middle class, which has been described as a group that benefits from a large investment in education resulting in more diverse skill sets and the significant possibility of achieving economic prosperity over time [143]. Although professionals are often treated as a proxy for middle-class status [142], black South Africans still grapple with the repercussions of past economic and racial segregation, reflected in differences in asset ownership compared to white South Africans [143].

Local MJH is also influenced by SA's two-tier, inequitable healthcare system. A resource-constrained public health sector, serving over 80% of the population, but accounting for around 50% of healthcare expenditure [144]. In contrast, the private sector serves less than 20% of the population but also accounts for 50% of expenditure [145]. Enormous inequities also exist in health professional distribution, particularly for medical specialists and rehabilitation therapists. For instance, there are

approximately 7 medical specialists per 100,000 population in the public sector and 69 per 100,000 in the private sector [4]. These inequities exacerbate the challenges faced by the public health sector that deals with a complex, quadruple disease burden [4]

Notwithstanding these challenges, health professionals in South Africa's public sector receive competitive remuneration [63]. Since democracy in 1994, several financial incentives, notably the occupation specific dispensation (OSD), have been introduced to attract and retain health professionals in the public sector [105]. Despite variable outcomes from OSD implementation [105, 146], it has reduced the salary gap between South African health professionals and the global workforce [147]. SA medical doctors also benefit from the commuted overtime system, with extra hours compensated by the employer for hospital health service coverage [148], constituting a substantial part of doctors' compensation [4]

In South Africa, MJH is permissible through a provision in the Public Service Act known as remunerative work outside of the public service (RWOPS). MJH is legal provided that permission from the relevant authorities has been obtained, and that such private work occurs outside of official working hours [149]. Although intended to retain doctors, particularly specialists, in the public sector by allowing them to supplement their salaries in the private sector [66], evidence suggests non-compliance and potential misuse of the RWOPS system by health professionals [68, 150]. Existing qualitative studies have explored certain MJH aspects [18, 19], but there is a gap in research on the experiences of public sector medical doctors, professional nurses, and rehabilitation therapists regarding MJH and the perceptions of other policy stakeholders in the post-apartheid workplace. Rehabilitation therapists are often overlooked in human resources for health (HRH) reform discussions nationally and internationally [72].

Consequently, the primary aim of this article is to explore MJH among medical doctors, nurses, and therapists within South Africa’s political and socio-economic context and contribute to MJH theories from the South African perspective. The study was informed by several research questions. What are the narratives of these professionals on MJH? How do their motives vary by profession? Are there differences in perceptions between health professionals and key stakeholders? To what extent do existing MJH theories explain South African perspectives, and how can we offer a locally informed viewpoint on these theories? The overall aim is to provide insights into the MJH phenomena among South African health professionals, with implications for other LMICs. This study is part of a broader mixed methods doctoral study that examined MJH and its regulation among public sector medical doctors, professional nurses, and rehabilitation therapists in the Gauteng (GP) and Mpumalanga (MP) provinces.

5.2. Methods

5.2.1. Theoretical framework

We developed a theoretical framework by integrating one framework and two theories to better explain MJH among health professionals. We explored MJH among medical doctors, professional nurses, and rehabilitation therapists, by combining key concepts and insights from Russo and colleagues' framework on dual practice among medical doctors [29], the microeconomic theory of MJH [16, 18, 19], and Betts' organisational theory on moonlighting [89].

Russo and colleagues' framework emphasises the influence of context and health system governance on MJH prevalence among medical doctors [29]. By incorporating this framework, we analysed how contextual factors shape the patterns of MJH behaviour among health professionals.

Microeconomic theory generally explains MJH in terms of a constraint on working hours in the primary job and the desire for heterogeneous work, for example, to learn new skills, and gain credentials and experience [16, 18, 19]. We applied this theory to explore how factors such as income disparities, limited working hours in primary jobs, and the desire for heterogeneous work opportunities influence health professionals' decisions to pursue additional employment.

Betts' organisational theory on moonlighting [89] posits that individual decisions to engage in moonlighting are influenced by different organisational, occupational, environmental, and individual factors. Organisational factors cover MJH policies, regulations on working hours, and incentives. Occupational factors involve health professionals' category, speciality, and service demand. Environmental factors encompass economic status, employment rates, wage disparities, working conditions, and MJH opportunities. The individual factors encompass demographics, finances, work attitudes [90], and ethics, including gender, age, dependents, and speciality [33, 151]. MJH provides workers with outcomes such as additional income, and training, but could change their behaviours and perceptions about their primary job [89]. Leveraging this theory, we explored how various factors influence health professionals' decisions to participate in MJH in our context.

5.2.2. Study setting and design

This qualitative study is part of a broader mixed methods doctoral study that examined MJH and its regulation among public sector medical doctors, professional nurses, and rehabilitation therapists in Gauteng (GP) and Mpumalanga (MP) provinces. GP is South Africa's economic hub and is primarily urban, whereas MP is mainly rural [123, 152]. This study employed key informant interviews (KIIs) and in-depth interviews (IDIs) with public sector medical doctors, professional nurses and rehabilitation therapists from GP and MP. Each component is discussed below.

5.2.3. Key informant interviews

The objective of the key informant interviews (KIIs) was to examine the perceptions of key informants (KIs) on MJH among public sector medical doctors, professional nurses, and rehabilitation therapists.

Participant selection

We compiled a list of KIs from across South Africa, with representation from the following groups: national and provincial government; hospital management; health professions councils; professional associations; civil society, and health workforce researchers. A purposive sample of 33 KIs was chosen from this list to ensure diverse perspectives on MJH. Additionally, we used a snowballing strategy, in which we requested KIs to propose other potential KIs for interviews, and this strategy yielded three additional KIs.

Data collection tool

We designed a semi-structured interview schedule (see Annexure 12) informed by the theoretical framework. The questions focused on the KI knowledge or experience of MJH among health professionals and their perceptions on the factors that influence MJH among the three health professional groups. The interview schedule underwent a pilot phase involving four participants who shared similar characteristics with the KIs to assess question relevance, clarity, and duration. Subsequent modifications were made to refine the interview schedule based on pilot feedback. The information from the pilot interviews was excluded from the analysis.

5.2.4. In-depth interviews

The objective of the in-depth interviews (IDIs) was to examine MJH among the three health professional groups.

Participant selection

In each of the study provinces, we used purposive sampling to select eight medical doctors (generalists and specialists), 10 professional nurses (four years of training), and 12 rehabilitation therapists who had previously participated in MJH or were doing so at the time of data collection. In the case of rehabilitation therapists, we selected two from each of the subgroups of physiotherapists, occupational therapists, speech therapists, audiologists, and dual speech therapists/audiologists. Additionally, we adopted a snowballing strategy, in which we asked the health professionals who agreed to the interviews to recommend other possible health professionals for interviews. This strategy resulted in 14 participants, bringing the total to 30.

Data collection tool

Informed by the theoretical framework, we developed a semi-structured interview schedule (see Annexure 13). The questions focused on the health professionals' experience with MJH and factors

contributing to their participation in MJH. The interview guides were piloted with six health professionals representing various roles: a newly qualified medical specialist from a central hospital, a medical practitioner from a central hospital, two professional nurses from a tertiary hospital, a physiotherapist from a district hospital, an occupational therapist, and a dual speech therapist/audiologist from a tertiary hospital. The aim was to assess the schedule's clarity, suitability, and the time required for its completion. Subsequently, BM incorporated additional probes into the study interviews based on insights gained from the pilot interviews. No further modifications were deemed necessary. The information from the pilot interviews was excluded from the analysis.

5.2.5. Data collection

Each study participant was contacted by email and phone to request voluntary participation in the study. Following written informed consent, the principal researcher (BM) conducted all interviews in English using the relevant semi-structured schedules. Due to COVID-19 restrictions, all interviews, except one, were conducted online using Zoom, Microsoft Teams or telephone between 14 August 2021 and 20 October 2021. BM also compiled detailed field notes after each interview. Each interview lasted an average of 40 minutes, but this varied depending on the responses of the participants. All interviews were voice recorded with consent and given an anonymous code to ensure confidentiality.

5.2.6. Data analysis

The qualitative data from the interviews were transcribed verbatim and the transcripts were checked against the original recordings to confirm accuracy. The research team used thematic analysis [127], supported by MAXQDA 2022. The three authors independently read and coded three different KII transcripts and three different IDI transcripts. An initial meeting discussed the codes, possible sub-themes, and themes. Following initial consensus on the initial codes and themes, BM analysed the remaining data, using a combination of hand-coding and MAXQDA 2022, and compiled a memo for discussion. Concurrently, LR mapped the results from a further six interviews. The three authors convened at a second analytical workshop to discuss the results and analyse patterns in the data, and the MJH narratives. BM wrote up the initial study findings, which were discussed as a team. Subsequently, a meeting was held by the authors to make sense of the phenomenon of MJH in the South African political and socio-economic context.

5.2.7. Trustworthiness and rigour

Lincoln and Guba's criteria of rigour were used in this study [128]. Prolonged interactions with the data during data cleaning and coding ensured credibility. The inter-coder agreement and validation of themes during data analysis ensured the dependability of the study findings. The use of actual quotes from participants to generate themes ensured confirmability.

5.2.8. Ethical considerations

Ethical approval was granted by the Human Research Ethics Committee (Medical) of the University of the Witwatersrand [M210262]. All participants gave written informed consent. Before each interview, BM provided a detailed information sheet to each participant and outlined the study objectives, emphasising voluntary participation, confidentiality, and anonymity. Consent for the interview and its recording was confirmed. Participation in the study was voluntary. Given the sensitive nature of MJH, BM adopted a non-judgmental, sympathetic approach to the interviews, putting health professionals at ease. The electronic format of the interviews allowed for some distance, facilitating open conversation.

5.3. Results

5.3.1. Characteristics of study participants

In total, 63 participants were interviewed: 33 key informants (KIs) and 30 public sector health professionals. One selected key informant (from a private hospital group) and two medical doctors were unavailable, despite several attempts to find a suitable time for the interview. The KIs were from the following groups: civil society (n=2), statutory bodies (n=2), academia and research (n=3), hospital management (n=10), human resource management (n=2), professional associations (n=4), provincial government (n=3), national government (n=3), private hospital groups (n=2) and nursing agencies (n=2). The health professionals interviewed included medical doctors (n=8), professional nurses (n=10), and 12 rehabilitation therapists (n=12) distributed evenly between the two provinces (**Table 8**).

Table 8: Characteristics of the participants

Sector/ profession	Male	Female	Total
Key informants=33			
Civil society	2		2
Statutory body	1	1	3
Academia & research	2	1	3
Hospital management	5	5	10
Professional association	2	2	4
Provincial government	3		3
National government	3		3
Private hospital group		2	2
Nursing agency	2		2
Health Professionals =30			
Medical doctor	4	4	8
Professional nurse	3	7	10
Rehabilitation therapist	5	7	12

5.3.2. Emerging themes

Four themes emerged from the data and are presented in **Table 9**. Although the themes overlap, each is described separately for the sake of clarity. Within each theme, we present the findings from the key informant interviews (KIIs) and the individual in-depth interviews (IDIs) in an integrated manner.

Table 9: Themes and sub-themes.

Themes	Sub-themes
1. Financial motivation	• Constrained economic context. • Salary augmentation • Financial coping strategy • Payment of debt • MJH enables a better lifestyle • Lower earnings than counterparts in private practice • Perceived unfair salaries in the public health sector
2. Non-financial motivation	• MJH helps to maintain or enhance skills • Exposure to different patient profiles • Job variety or fulfilment • Professional advancement
3. Conflicting contexts: well-resourced private sector versus resource-constrained public sector	• Lucrative market for medical specialists • High demand for professional nurses • Well-equipped environment • Quick payment system for nurses • Lack of functional equipment • Poor budgeting
4. Ineffective public health sector management	• Lack of MJH supervision • Lack of accountability

Theme 1: Financial motivation

Key informants (KIs) stated that the primary motivation for MJH in the private sector among health professionals was financial, driven by the desire or necessity for increased income or financial stability. This perspective was shared by the three categories of health professionals, all emphasising that financial reasons were the main driving force for MJH.

> *"The main reason is financial. If I didn't have financial issues, I don't think I would. I work long hours. I work until 8 pm every day. I'm only doing it for the financial responsibilities that I have. Obviously, if the current salary it was paying was enough, I wouldn't have opted for working in private."* (IDI 10, medical specialist)

> "*The financial constraint that is my main reason because I needed some extra cash to do my extra things. To take my child to school*" (IDI 9, nurse)

> "*…to be completely honest, there was an element of trying to generate more income. I think at the moment our salary doesn't allow us to have all the essentials that we require*" (IDI 16, speech therapist and audiologist).

The key informant and health professional interviews highlighted the complicated intersection of MJH as a financial coping strategy (e.g., debt repayment) and MJH as an enabler of a *"better lifestyle"* or the fulfilment of personal aspirations. A medical doctor explained that the additional money from MJH was required to pay off debts for cars, a home mortgage, and children's school fees. In most instances, income supplementation was required to support members of both nuclear and extended families, particularly where health professionals were the primary breadwinners, or to meet family members' expectations.

> *"Yes, mostly it's [MJH] for the financial strains that you are having. You see once you are working, people and also families, they automatically ask you [like] you have a pocket load of money you, see? So, if you are in that environment then you need to make a plan because some of us, we are quite grateful because we can actually make a plan with the skills that we are having".* (IDI 4, physiotherapist)

However, MJH for additional finances went beyond survival. Some KIs noted that medical specialists pursue MJH for *"multiple revenue streams"* to sustain *"opulent lifestyles".* One KI reported that MJH was driven by greed.

> "*It's greed, it's absolute greed. It's this constant cycle of having to compete and have the bigger Volvo, and a bigger BMW, and a bigger whatever. For me, that is not what medicine is all about"* (KI 24, national government).

The majority of KIs also highlighted the financial contextual and individual factors that influence MJH among medical doctors, professional nurses, and rehabilitation therapists. Among the contextual factors was a stagnant South African economy, exacerbated by the COVID-19 pandemic, the lack of salary increases for civil servants, and an increase in the cost of living, which together led to MJH in the private health sector. A civil society representative explained that:

> *"As public servants, we did not get an increment. I think this is our second year. Next week the unions* [civil society] *will take our government to* [the] *Constitutional Court. The employer [government] said he does not have money. That thing has contributed negatively to us because the cost of living is going up. When you go to CPIX* [consumer price index]*, things went up. Petrol it's going up."* (KI 1, civil society)

A KI, who is a founder of a private nursing agency, highlighted the poor state of the South African economy. In their opinion, MJH offers health professionals the option of supplementing their income. Other KIs noted that while the government pays a *'decent'* salary to health professionals, the inflated cost of living, combined with living beyond one's means, contributes to the desire or demand for additional income.

Some KIs highlighted that the failed public systems perpetuate MJH among health professionals and others. A KI stated that employees with 2 to 3 children would not need to spend 30% to 40% of their salaries ensuring their children receive a decent education. The KI highlighted disparities among communities, particularly the Afrikaner community, stating they spend less for better quality education. However, for top-quality education, expenses can reach around R8000 per month per child, compared to R800 for a mediocre public-school education. The KI also mentioned that if public hospitals were functioning properly, there would be no need to spend around R4000 to R5000 on private health insurance. The KI emphasised the burden of failed public services, citing high taxes and excessive expenses affecting affordability. They stressed that these issues across various government departments compel health professionals to seek additional employment to manage escalating costs.

The IDIs revealed that some health professionals engage in MJH to fulfil various financial aspirations. An occupational therapist emphasised that the financial benefits of MJH enabled them to open their own private practices (private rooms), purchase houses, and acquire desirable possessions, thereby achieving a lifestyle beyond their initial subsistence requirements. Other rehabilitation therapists also emphasised that the fee-for-service payment structure in the private sector *"ends up being more money than your normal salary"*, supporting ventures like opening their own private rooms, which employ administrators and other health professionals, and enabling them to build homes for their families. Meanwhile, a medical specialist highlighted the need for extra income to attain financial freedom,

support extended family, and enhance lifestyle. A professional nurse echoed this sentiment, enjoying the extra income for leisure, travel, and lifestyle improvements.

The health professionals interviewed also engaged in MJH due to perceptions that their skills and contributions warranted higher compensation than what they were receiving in the public sector. The latter in turn was influenced by intra- and inter-professional comparisons. In the case of medical specialists, they either compared their earnings with their counterparts in private practice or based their worth on what they were able to earn in the private health sector with MJH. A recently qualified junior medical specialist explained his decision on MJH as follows:

> "*It was actually for financial reasons, you know. There is so much difference from what you are getting paid as a junior consultant compared to the amount of money you can make in private*" (IDI 1, medical specialist).

The interviews also revealed perceptions of the unfairness in salary scales in the public sector. One of the KIs highlighted the difference in the responsibilities of a senior nurse professional nurse and a medical intern who is unable to practise independently, yet the latter earns more money than the former. The KI thought that more appropriate and equitable remuneration of the senior professional nurses would prevent moonlighting or MJH, with potential service delivery benefits.

A professional nurse with specialist training exclaimed that:

> *"We are underpaid for the amount of hours that we put in; we are severely underpaid, so you cannot survive only on that salary that is overtaxed, so we have to do something at least to keep up"* (IDI 28, professional nurse).

An early-career occupational therapist explained the unfairness as follows:

> *"I feel like the government is cheating us by the salary they give us in relation to the patients... There's a lot of patients ...sometimes you even sacrifice your lunch to actually see those patients ..., so I feel like we deserve better, or you assess other countries like Europe, America, they [rehabilitation therapists] earn more than medical professionals* [doctors]. *Like they are prioritised, they are considered a specialist*". (IDI 24, occupational therapist)

Theme 2: Non-financial motivation

Several KIs highlighted the benefits of public sector employment such as a guaranteed salary, long-term benefits, working in multi-disciplinary teams, and in the case of medical specialists, leading teams and teaching medical students and trainee specialists. However, both sets of interviews revealed that non-financial reasons for MJH in the private sector, such as exposure to different patient profiles and maintaining or enhancing their professional competencies, play an important, albeit secondary role.

According to the interviews, these non-financial incentives for MJH are a result of exposure or experience gained in the private sector.

MJH offered a chance to advance professionally by gaining access to advanced equipment, acquiring new skills, and staying updated in their respective clinical fields. One KI explained that:

> *"Specialists are being trained by public sector facilities. What then happens is that once they have qualified you may find that some of the equipment that they need is not necessarily available in the state sector but available in the private sector. So, as a professional, you want to be always improving your skills."* (KI 25, professional association)

> Another KI added that gaining access to this equipment, the *"tools of trade"* in private hospitals was *"important for those in the training hospitals, like your academic hospitals because it's easier to teach and share skills on something which you also participate in".* (KI 26, provincial government)

Similarly, the health professionals interviewed highlighted the non-financial motivations for MJH, specifically the desire for career advancement and exposure to diverse settings. Those professionals, in rural or district hospitals, found their work monotonous and reported various constraints that made it difficult to fully apply their expertise. A therapist explained the non-monetary value of MJH:

> "*In a way, it* [MJH] *gives you a chance to, like it takes away the boredom if you keep doing one thing over and over and over. So, it gives you a break, sort of, to do something different, so when you come back it feels like you are refreshed. So, the job doesn't become boring because it doesn't feel like you're always doing the one thing. It offers me a break away from my usual routine*" (IDI 2, physiotherapist).

The therapists also reported limited prospects for career growth in the public sector despite obtaining further qualifications. Nurses, often confined to specific departments in the public sector, pursued MJH to explore alternative practice settings, as illustrated by one working in a neonatal intensive care unit (ICU) in her second job.

> *"The exposure to work in different hospitals because sometimes you find that you just need to see how other facilities are functioning. At first, when I started to work there* [name of private hospital], *I was working in a medical ward* [in the public hospital]. *They placed me in Neonatal ICU and that is where I learned, and I gained a lot of experience with the ventilators.* (IDI 9, nurse).

The medical specialists interviewed aimed to maintain their clinical expertise, illustrated by the following comment.

"For me, you get to work more like a radiologist rather than a consultant because, in the public sector, you are more like supervising people. Instead [in the private sector]*, you are doing the hands-on job you know. So, that is also nice to be able to see yourself in the field and encourages you to even study further and want to acquire more skills because the private sector is very competitive, so you need to up your game."* (IDI 15, medical specialist).

Health professionals who worked outside the health sector or managed their private practices highlighted the job diversity, managerial skills, and the sense of ownership that came with their businesses or practices.

"Because it's a different stream from my basic physiotherapy job, so it exposes one to like financial management, running a business.... Dealing with accountants, dealing with leases and rentals" (IDI 2, physiotherapist).

"You actually even learn the management skills because you are the manager. You are the director, so you do everything. So, you gain such experience. (IDI 10, medical specialist).

Theme 3: Conflicting context: well-resourced private sector versus resource-constrained public sector

The interviews reported that the public and private health sectors differ in financial incentives, resource availability, and patient care quality. The private sector offers lucrative opportunities and well-resourced systems, while the public sector faces resource constraints and infrastructure challenges. Motivations for MJH in the private sector include financial benefits and better working conditions, contrasting with delayed payments and resource shortages in the public sector, driving health professionals to seek additional work in the private sector. Additionally, concerns were expressed by some KIs about the policy disjuncture in government approval of private hospital licenses, which has increased the number of newly established private hospitals. This has inadvertently increased the demand for skilled health professionals in the private health sector.

The allure of private hospitals stems from a lucrative earning potential, for medical specialists in particular. Furthermore, medical specialists have the autonomy to practise independently, regulate patient loads, manage schedules, and set prices, in many instances, beyond health insurer tariffs. Private medical practices yield significant financial gains compared to government roles with fixed salaries, where specialists earn substantially more due to the fee-for-service payment structure in the private health sector. A KI underscored the stark disparity in specialist earnings between the two sectors.

"When you work in a private capacity you make money, you claim more. One person that I asked, is the head of a [clinical] *department and a* [medical] *specialist. He said that he makes R26 000 to see one patient if this patient had an accident because he claims this money from*

the Road Accident Fund. If he sees four patients it is R100 000 whereas in government, you can see twenty patients and still earn the same salary" (KI 6, HR manager)

Therapists in private hospitals valued the fee-for-service payment structure and the ability to apply for prescribed minimum benefits (a set of healthcare services that health insurances are legally required to cover under the South African Medical Schemes Act) for patients with health insurance requiring rehabilitation services, making the work financially rewarding.

In contrast, the health professionals stated that their fixed public sector salaries do not reflect their workload or performance, unlike in the private sector where earnings are tied to patient numbers and efforts. This disparity motivates them to seek additional work in private settings. Two medical doctors had the following to say:

"For those ones working in busy [public] *hospitals, those ones are actually sweating for every penny. Yes, it can be a bit frustrating that it doesn't reflect on your paycheque at the end of the month. I'm seeing maybe about ten patients a week. Someone, there is seeing fifty patients a week. We are all getting the same money."* (IDI 23, generalist)

"The salary is fixed regardless of how busy your call was." (IDI 26, medical specialist)

Regarding nursing employment, KIs pointed to the changing practices of private hospitals. Historically, nurse staffing was linked to bed capacity, but this practice has shifted, with private hospitals maintaining a permanent nursing core that covers only about 50% of their beds. When demand increases, they turn to nursing agencies for additional staff and the staff provided by nursing agencies tend to be public sector nurses. That is because the significant nurse shortages in the country impact both the public and private sectors. Furthermore, as highlighted by a KI, the shortage of skilled nurses has intensified due to a two-year pause in specialist nurse training following delays in the approvals of the new nursing curriculum.

"*The current reality is that professional nurses are a scarce resource. So, you'll find out that if we have contracted a service provider* [a private nursing agency]*, they register our very own nurses on their database. They do not have an adequate pool. You'll find that we are recycling our very own nurses*" (KI 8, hospital manager).

The nurses commented on the ample staff-to-patient ratio in the private sector because they employ agency personnel, thus preventing fatigue and burnout. In contrast, they stated that they face strenuous working conditions in public hospitals such as one nurse having to manage multiple patients on ventilators. Nurses also reported that the public sector's payroll system could involve delays in compensation, whereas private nursing agencies offer quicker payment. Consequently, some nurses opt

for additional shifts with nursing agencies, even though they might end up working in their own hospitals.

The management inefficiencies in the public sector also contribute to MJH. The interviews revealed a high demand for nurses to work overtime in the public sector due to staff shortages. However, nurses and therapists highlighted that the reason driving them to the private sector is the delayed payment of overtime, reportedly spanning *"six to eight months"* for nurses, and the lack of overtime compensation for therapists, particularly in parts of Mpumalanga.

> *"…there is a lot of staff shortage in our department* [theatre]*; in nursing generally but* [in] *the department that I work in, there's almost always overtime that is available. Sometimes you are called from home."* (IDI 30, professional nurse)

> *"The other thing of course, is that, in my opinion, one of the problems is that in many of these disciplines like ICU nurses, government needs the workers that are doing overtime in the private sector, to be lured [back] in the public sector. But the reason that these nurses don't want to work in the public sector is, because the payments come too late, and because of how it's taxed. Because, at the moment, if they do overtime, they see the money three or four months later."* (KI 5, academia & research)

The health professionals interviewed noted the well-resourced and effective systems in the private sector, facilitating swift access to medical records, diagnostics, and laboratory facilities. Additionally, they highlighted the advanced and high-tech theatre equipment in private settings, allowing for a broader range of procedures compared to government facilities. These resources enable them to offer quality service to patients and contribute to improved patient outcomes.

> *"In private you never have issues with files that are lost* [as is the case in the public sector]. *If you want a scan, you have it and you get it immediately. If you book theatre, it is always available. You need an ICU bed post-op you know you are going to get it, so there are no stumbling blocks when it comes to you providing the services"* (IDI 1, medical specialist).

> *"We see much improvement because we've got all the resources, we've got our effort from all of the members of the team, so it's just, well the outcomes of our patients tend to be good, in a private setting."* (IDI 20, physiotherapist)

Several KIs highlighted the resource constraints in public sector hospitals, notably the infrastructure, and the lack of functional equipment to perform certain operations, impacting both patients and staff. These resource constraints exacerbate MJH, highlighted by one hospital manager:

"*I don't know whether you are familiar with Academic Hospital X. The hospital was built in 1972 if I remember correctly. The population has exploded, the staff establishment has remained the same, so the infrastructure is dilapidated. It's not a conducive environment, so you can understand why people want to get experience outside the hospital. With budget limitations, we can't buy the equipment that the doctors really need. For example, for non-invasive surgery, we've been requesting equipment which is very expensive for the past five years and there's never been a budget. So, you can't blame them for wanting to do RWOPS [MJH]*" (KI 15, hospital manager).

Across the three professions, a constant thread that emerged from the interviews was the inadequate resources for ensuring quality patient care in the public sector. A physiotherapist emphasised the impact of resource scarcity on rehabilitation efforts:

"*The one thing that we lack here is a lot of resources, so we don't perform to the level that we could perform because we don't have the relevant resources to be able to apply our techniques. if I maybe gave you an example of a spinal cord injured patient who needs to be rehabilitated to the extent that they could be independent at home, you need the space, infrastructure, to be able to do those exercises or therapy on to the patient. You need the different tools like weights, mats, transfer boards, plinths – those – so that you could use them to work with the patient as they improve their functionality*" (IDI 2, physiotherapist).

Furthermore, a KI highlighted the persistent challenge of insufficient theatre time and space, resulting in lengthy waiting lists for surgery and backlogs of up to 5-6 months per year. They emphasised the lack of staff and infrastructure to meet patient needs, which leads to delays and affects overall productivity. Similarly, a medical specialist expressed frustration with the inadequate provision of essential resources in theatre, such as linen, porters, and water, hindering their ability to provide timely care and conduct surgeries effectively. These obstacles significantly impact the delivery of healthcare services, adding complexity to the work of healthcare professionals. A medical specialist stated that:

"The service delivery in government is horrible, you know if you had a particular drug, you would be able to save this patient, but now in private the service delivery is excellent, the drugs are there. The facility is there for you to actually be able to save the patient and in government, it is not there, so service delivery is not there." (IDI 26, medical specialist)

Theme 4: Ineffective public health sector management

The interviews underscored inefficiencies in public sector management, particularly in handling absenteeism and performance issues. Key informants emphasised a lack of accountability, driven by managers' reluctance to address problems for fear of losing skilled health professionals. These factors

contribute to an environment where health professionals may engage in MJH without restrictions while retaining their positions in the public sector. A human resource (HR) manager reported that:

> *"There is just poor management of absenteeism and performance. And what I have noticed is that we do not have a lack of health professionals anymore. We do have a lot of health professionals that are unemployed or who are seeking jobs in the public sector, but we are just not managing the resources that we have. So, the perception that we have now is that in clinics it is a known fact that the doctor is not here, or the doctor will be here for three hours, or the doctor will be here at ten. And the doctor will leave at three, and it is not supposed to be like that because they are appointed to work for eight hours, eight hours that is half past seven to four o'clock. But you can rarely get a doctor at their workstation at half past seven. If they are there, they are very few and they are frustrated."* (KI 6, HR manager)

A KI also underscored the challenges of managing MJH and the perceived disparities in how different health professionals engage with remunerative work outside the public sector.

> *"No, I think the doctors, mainly because it's the doctors mainly that are said to be abusing the RWOPS system to practice in their private settings and not in the public sector. So, the nurses are more constricted in the time that they have to go, it will be sick leave or a week off or holiday you know and annual leave that they will use it for that, but I'm not sure that we will ever control* [manage] *this because people will do it because they can, you see and yeah, the sad part is we keep on drawing from the same pool.* (KI 3, statutory body)

Another KI noted a significant problem in the public sector: salaries were disbursed without confirming service delivery.

> *"…of course, here with the public sector, their salaries are guaranteed. The salary is given, even if they didn't see a single patient, they will still receive it. We don't sit down and check how many patients have you seen, and how many students you train. The assumption is that you've done your work".* (KI 27, hospital manager)

Furthermore, another KI stated that:

> *"I mean, at the end of the day if we did do a proper performance management system, there is a system, but there is not executed effectively so your problem remains that the person can come and go and there's nobody really checking his performance generally."* (KI 3, statutory body)

Some KIs reported facing compliance and enforcement challenges, particularly regarding absenteeism among medical specialists. Some medical specialists often refuse to sign time registers that monitor their working hours, while nurses, rehabilitation therapists and other personnel adhere to time registers. A KI stated that:

"...some of the doctors that were refusing to sign were senior doctors, your specialists. Then you find that the person is threatening to resign to say, "No, are you policing us like children" you know. It's better I resign". And you want to retain this person at all costs. It's your senior clinicians that you need, and they actually threaten to resign. Yes, you find that this is a Urologist, and you rely on him, he knows his stuff you know. That's why he can even threaten you with resigning." (KI 8 GP, nursing manager)

The health professionals and KIs cited that the absence of accountability and discipline of absent health professionals was a prevailing issue, attributed to hospital managers' reluctance to act, particularly against medical specialists, for fear of losing them. The reluctance to enforce measures stems from the broader concern of retaining healthcare personnel, particularly in less desirable regions like Mpumalanga. The delicate balance between enforcing rules and maintaining workforce morale underscores the complexity of managing personnel within the health sector. An ethics officer stated that even when hospital management reported absent medical practitioners to the province, the doctors were not disciplined.

"But you see the problem is still actually that we are failing to hold people to account. We are still holding people like they are eggs or something. We don't want to ruffle their feathers. Yeah, we are at their mercy." (KI 7, hospital manager).

"...some they do report, there's no consequence. Even if I report it then what? They won't do this and this. So yes, that's the challenging part. There are no consequences." *(*KI 15, provincial government).

5.3.3. Revision of the theoretical framework

In South Africa, health professionals have diverse employment choices, including working exclusively in the public health sector, the private health sector, or both. Our study primarily focused on health professionals in the public sector who also worked in the private sector. While we drew on Russo and colleagues' dual practice framework, the microeconomic theory, and Betts' organisational theory on moonlighting, none fully captured the complexities of MJH in our context. This study revealed several factors influencing MJH participation, outlined in **Figure 5**, including finances, career development, and the country-specific context. We revised the theoretical framework by incorporating additional constructs to explain the financial, non-financial motivations, and context-specific factors revealed by our findings. This adjustment aims to provide a thorough understanding of the dynamics of MJH, both within South Africa and in similar contexts globally.

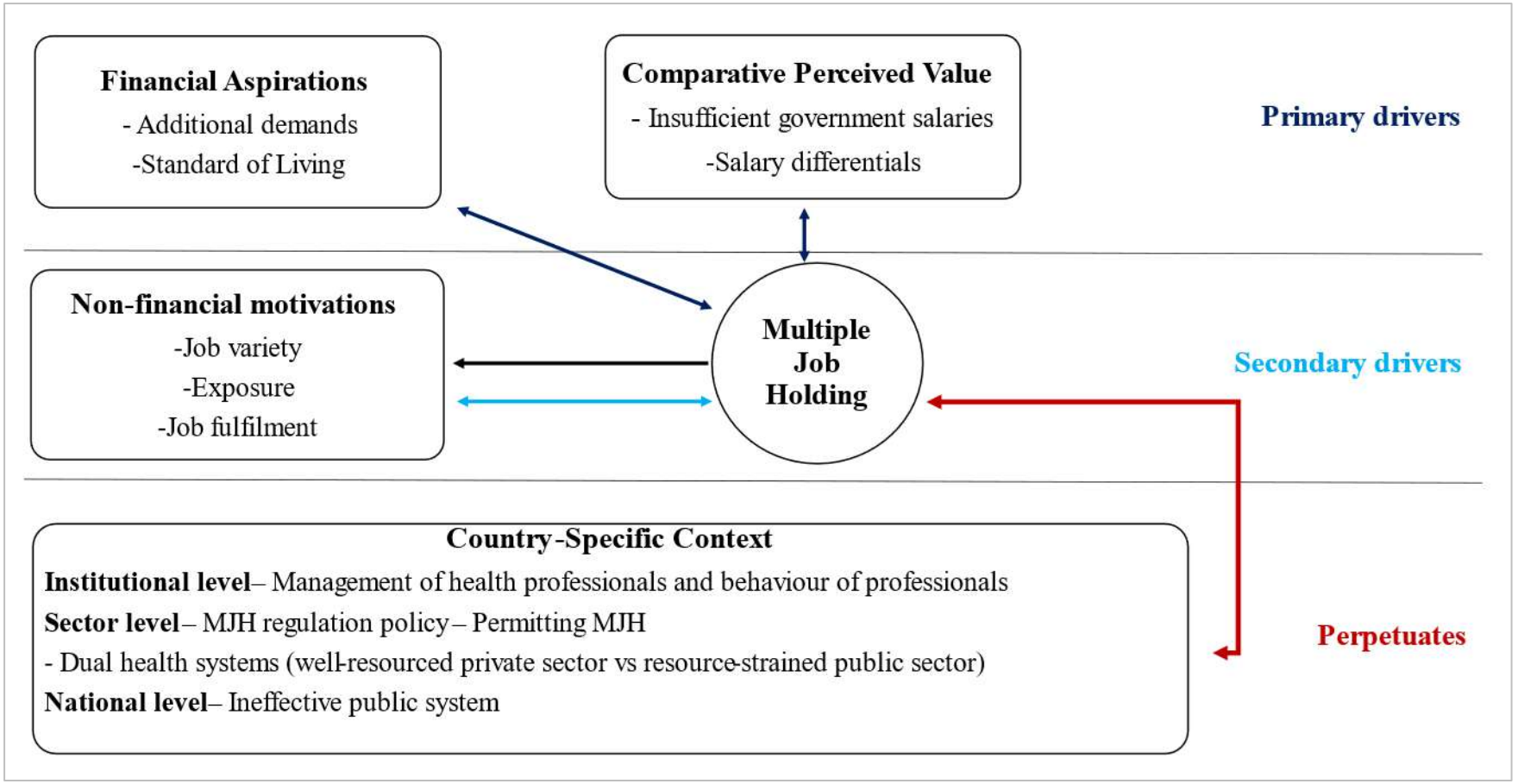


Figure 5: Revised theoretical framework of MJH among health professionals in South Africa

Financial aspirations

Financial aspirations (**Figure 5**) refer to the salary goals and desires of individual health professionals. The goals range from aiming for a certain income level to seeking financial security or higher salaries based on their additional demands (debt repayment, supporting families) and lifestyle aspirations (improving standard of living). These financial aspirations guide career or workplace decisions and are aligned with their personal or lifestyle preferences. **Figure 5** illustrates how financial aspirations motivate health professionals to participate in MJH. Achieving their financial goals through MJH encourages continued engagement in this practice.

Comparative perceived value

In our context, the term comparative perceived value refers to the health professionals' subjective assessment of the adequacy of the public sector salaries that they receive. It encompasses their perceptions of whether the salary they receive from the public sector adequately reflects the work they perform, their qualifications or skills and their contribution to public sector hospitals. This perception is influenced by various factors, including personal expectations, salary differences between private and public sectors, salary differentials between health professionals in the public sector, cost of living, work responsibilities and individual health professionals' needs, demands or preferences. Once health professionals reach this perceived level of financial fulfilment, they tend to increase their involvement in MJH to sustain this sense of financial freedom or achievement.

Non-financial motivations

The experience of engaging in MJH shaped health professionals' views of their primary jobs, fostering a greater appreciation for the benefits of MJH and prompting continued involvement in it. Moreover, health professionals stated that their primary reasons for MJH participation were financial, while non-financial motivations, mainly benefits, served as secondary drivers for most of them. We categorised these non-financial motivations as career development, signifying that individual health professionals seek opportunities for professional growth to enhance or acquire new skills and career advancement which means moving up the career ladder. In **Figure 5** the blue line highlights that career development subsequently becomes a secondary driver of MJH.

Country-specific context

MJH among health professionals in South Africa is influenced by multifaceted issues stemming from the country's societal context, healthcare system disparities, and MJH management challenges. This discussion will explore the specific context as depicted in **Figure 5** across different levels: institutional (hospital), sectoral (health), and national (South Africa).

Institutional level

At the institutional level, our findings revealed that managerial inefficiencies and a lack of accountability are the main factors perpetuating MJH among health professionals. These include the failure to address absenteeism and non-performance due to a fear of losing skilled professionals and challenges in enforcing working hour rules, particularly with medical specialists. Additionally, the reluctance to take disciplinary action against absent specialists further exacerbates the issue, as managers prioritise retaining professionals over enforcing accountability measures. All these factors create an environment where health professionals engage in MJH while retaining their public sector positions since working hours are not regulated and absenteeism especially among medical specialists is not reprimanded.

Sector level

In South Africa, multiple job holding is permitted under certain conditions. Current health professional shortages in the public health sector, especially among medical specialists, create challenges for managing MJH, as health professionals may prioritise the sector offering greater financial incentives. Health professionals prioritising the private sector may limit access to specialist care in the public sector, reducing their availability for public sector duties and exacerbating healthcare access challenges. The allure of the private sector lies in enticing financial incentives, professional autonomy, and ample resources, particularly attractive to medical specialists and other health professionals seeking higher earnings and better working conditions. Conversely, dissatisfaction with the public sector arises from resource limitations, delayed payments, and managerial inefficiencies, compelling professionals to seek additional work in the private sector. Challenges such as strenuous working conditions and delayed compensation exacerbate this trend, as health professionals prioritise better service delivery and resource access in private settings.

National level

South African health professionals face economic challenges due to a stagnant economy and the aftermath of COVID-19. Issues like stagnant salaries, rising living costs, and the high expenses of quality education contribute to the demand for extra income. Challenges in the public health system, such as high health insurance costs, further prompt professionals to seek additional employment.

5.4. Discussion

This study revealed that health professionals across three categories engaged in MJH to fulfil unmet financial aspirations in the public sector. Although they remained in their public sector jobs, they sought additional income in the private sector to support their families and improve their lifestyles, as they found public sector salaries insufficient. Secondary drivers include exposure to diverse job experiences and career growth opportunities. The allure of higher earnings and superior facilities in the private sector

further fuels MJH. Meanwhile, managerial inefficiencies in the public sector contribute to this trend, as professionals face no repercussions for engaging in MJH without restrictions while retaining public sector positions with flexible working hours. The revised theoretical framework adds context-specific constructs to the financial and non-financial factors, as well as the contextual influences, shaping MJH among South African health professionals.

In our study setting, the three categories of health professionals reported financial constraints due to insufficient government salaries. A systematic review found that while specific factors may vary by country, financial incentives consistently emerge as critical factors influencing doctors' workplace choices [38]. Hoogland and colleagues [41] also found that low public sector salaries frequently motivate medical doctors to participate in MJH, especially in LMICs. Similarly, doctors in Iran turn to MJH due to salary disparities between public and private sectors [153]. Among nurses, low salaries are a key reason for their involvement in MJH [10]. Although comparable studies for therapists were not available, a systematic review of MJH across various sectors revealed that financial incentives were the main drivers of MJH [24]. Our findings suggest financial constraints arise not only from immediate needs like debt repayment and family support but also from lifestyle aspirations such as home ownership and private rooms. Thus, the perception of MJH mainly as a coping mechanism for absent or low public sector remuneration [154], does not fully capture the financial motivations in our context, differing from other LMICs. Here, financial aspirations such as financial security and lifestyle improvements also drive MJH engagement.

Historically, the medical profession was viewed as a vocation focused on altruism and service. However, various socioeconomic issues, such as incentives, working conditions, and opportunities for professional progress, are increasingly influencing current healthcare job choices [155]. Campion and colleagues [24], proposed two overarching narratives regarding MJH: one involves lower-skilled workers constrained by limited hours, necessitating a second job, while the other concerns higher-skilled individuals attracted by opportunities for career advancement and personal fulfilment. However, our study also revealed an exception to this narrative in our setting, where all three professional groups, despite being highly skilled, resorted to MJH primarily due to financial pressures, lifestyle aspirations and career growth.

Furthermore, wage disparities between the private and public sectors influenced medical doctors' decision to engage in MJH, while distinctions between various health professional groups influenced the choices of nurses and therapists. In a South African study focusing on medical specialists, wage differentials of up to six times were observed in the private sector compared to the public sector. Salaries served as a significant financial incentive for working in or migrating to the private sector [35]. Globally, specialists are often motivated to participate in MJH due to payment discrepancies between

the private and public sectors, exacerbated by lower tariffs and income ceilings in the public sector [32]. Similarly, income has been identified as a key factor influencing physicians' behaviour and their decision to engage in MJH across countries of various income levels [156]. Salary increases resulting from OSD left nurses [43] and therapists dissatisfied with the revised government salary scales, potentially contributing to their ongoing salary dissatisfaction. This suggests that dissatisfaction with public sector salaries among doctors and nurses persists regardless of a country's economic status, highlighting huge salary gaps between sectors [141].

Our research revealed that while non-financial motivations were a secondary driver for MJH, emerged as a beneficial outcome of MJH experiences in the private sector, thereby further encouraging participation. This finding aligns with a South African study, which noted that medical specialists' views on public and private employment could be influenced by experiences in their private jobs, impacting their commitment to the public sector [35]. Additionally, our research supports Bett's organisational theory of moonlighting, which suggests that while MJH offers increased pay, training, and other benefits, it may also shape health professionals' perspectives and behaviours regarding their primary jobs [89]. Furthermore, our quantitative survey among the three health professional categories identified non-financial reasons as the second most important factor driving MJH participation, demonstrating their significant role beyond financial motivations [157]. Similarly, professional development was a key driver of MJH among medical doctors [24, 156] and nurses [40] in different countries, though still secondary to financial incentives.

The lack of resources, equipment, drugs, and outdated infrastructure, in the public sector, drove health professionals especially medical specialists to the private sector, while the availability of resources, drugs, and equipment attracted health professionals to the private sector. Koussa and colleagues [156], found that the lack of resources, shortages of staff, poor facility infrastructure and poor working environment were important push factors in the public sector, while the availability of up-to-date resources and a positive work environment were motivating factors that were pulling medical doctors to work in both in the public and private sector [156].

Figure 5, which illustrates the revision to our theoretical framework, explains why health professionals remain in the resource-constrained public sector rather than migrating to the private sector. The lack of control of working hours and absenteeism creates an environment where professionals can retain their public sector positions while engaging in MJH, benefiting from both a guaranteed government salary and lucrative earnings in the private sector. The reluctance of some medical specialists to sign time registers may indicate a desire for autonomy over their schedules as reported in other studies [8]. Additionally, research from Vietnam suggests that multiple job holding medical doctors, earn considerably more than those not engaging in MJH [33]. This finding suggests that health professionals

in our study may seek to leverage the security of a public sector job while also capitalising on the potential for increased earnings in the private sector, reinforcing the allure of MJH in our context.

Several key steps can be taken to address the challenges associated with MJH in South African healthcare. One such step is the implementation of existing performance management systems to ensure that health professionals are fulfilling their public sector duties, thereby enhancing service delivery to patients. Strong supervision and accountability measures are essential to ensure compliance with stipulated working hours. Hospital managers must receive adequate training in managing health professionals, particularly medical specialists. A Finnish study on public sector general practitioner retention, focusing on organisational justice, found that training leaders to be more just positively affected subordinates' attitudes and behaviour [158]. Timely disbursement of overtime payments is essential not only for attracting and retaining nurses but also for reducing the financial pressure to seek additional income in the private sector. Moreover, expediting the process of curriculum changes and approvals will allow for a more efficient response to the shortage of nurse specialists, ultimately strengthening the workforce in the public sector. Investment in nurse training is critical to alleviate current shortages and build a more sustainable, well-trained workforce, which is essential for maintaining quality care. Finally, enhancing the functioning of the public health system is vital. By improving service delivery, the public sector can better meet the needs of patients and health professionals, reducing the dependence on the private sector.

Study limitations arise from the potentially controversial nature of MJH, which may lead respondents to present their motivations or involvement in a way that appears more acceptable or socially desirable. Additionally, online interviews mandated by the COVID-19 pandemic restricted the observation of vital non-verbal cues in qualitative research. To mitigate bias, a non-judgmental approach, emphasising confidentiality, was maintained during interviews. Despite these restrictions, efforts were made to cultivate an open and transparent dialogue, enhancing the depth of the collected data. The qualitative approach provided a detailed exploration of motivations and challenges in managing MJH, incorporating diverse perspectives from stakeholders and health professionals for a holistic view. The study unveiled key factors in MJH within the South African health system, offering insights for policymakers and healthcare leaders addressing these challenges. While our findings are specific to the South African context, the reasons for MJH will likely exhibit similarities in other settings, particularly in LMICs, where financial aspirations, non-financial motivations, and country-specific context factors influence health professionals' decisions. This implies that while additional theoretical insights may emerge in diverse contexts, the revised framework holds the potential for relevance and application in other LMICs.

5.5. Conclusion

This study reveals the complex interplay of financial aspirations, career development motives, contextual factors, and management deficiencies contributing to MJH among South African health professionals. Implementing effective performance management systems and providing managerial training are crucial steps to enhance the management of health professionals in the public sector. These findings offer valuable insights for policymakers aiming to address MJH in South Africa's healthcare system and similar settings in other LMICs.

Abbreviations

IDI	In-depth interview
GP	Gauteng Province
HR	Human resource
KI	Key informant
KII	Key informant interview
LMICs	Low-and middle-income countries
MJH	Multiple job holding.
MP	Mpumalanga Province
OSD	Occupation specific dispensation
RWOPS	Remunerative Work Outside Of The Public Service
SA	South Africa

Availability of data and materials

The data for this article will be shared upon reasonable request from the contributing author.

Competing interests

None declared.

PLOS ONE

RESEARCH ARTICLE

Preferences of public sector medical doctors, professional nurses and rehabilitation therapists for multiple job holding regulation: A discrete choice experiment

Busisiwe Precious Matiwane[1]*, Laetitia C. Rispel[1], Duane Blaauw[2]

1 Centre for Health Policy & South African Research Chairs Initiative (SARChI), School of Public Health, University of the Witwatersrand, Johannesburg, South Africa, **2** Centre for Health Policy, School of Public Health, University of the Witwatersrand, Johannesburg, South Africa

* Busisiwe.matiwane@wits.ac.za

Check for updates

OPEN ACCESS

Citation: Matiwane BP, Rispel LC, Blaauw D (2025) Preferences of public sector medical doctors, professional nurses and rehabilitation therapists for multiple job holding regulation: A discrete choice experiment. PLoS ONE 20(4): e0320854. https://doi.org/10.1371/journal.pone.0320854

Editor: Francesca Maria Di Muro, University of Salerno - Baronissi, ITALY

Received: September 10, 2024

Accepted: February 24, 2025

Published: April 15, 2025

Copyright: © 2025 Matiwane et al. This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Data availability statement: Data is available from https://doi.org/10.71796/wits-figshare.28570073.v1.

Funding: The National Research Foundation in South Africa's South African Research Chair Initiative (SARChI) (#102219), held by LR, funded this project. The Wits Faculty of Health

Abstract

Introduction

Regulating multiple job holding (MJH) among health professionals is challenging for many health systems. The effectiveness of different MJH policy reforms depends on the behavioural responses of different groups of health professionals but little is known about their preferences and likely reactions.

Aim

Investigate the preferences of public sector medical doctors, professional nurses, and rehabilitation therapists for different MJH regulations in two South African provinces.

Materials and methods

We developed a novel discrete choice experiment (DCE) to evaluate the preferences of health professionals for jobs with varying MJH policy interventions. The DCE attributes included *restrictive* regulations (banning MJH) versus *reward-oriented* policies (increased public sector salaries, expanded overtime, improved clinical practice environment, and better hospital management). We produced an unlabelled DCE using an efficient design and administered it to a representative sample of health professionals. Generalized multinomial logit models were used for analysis. We also investigated group heterogeneity, calculated marginal willingness to pay and estimated uptake for different policies.

Results

1387 participants completed the DCE. The doctors, nurses and rehabilitation therapists were strongly opposed to banning MJH, requiring salary increases of 45.7%, 20.0% and 42.8%, respectively, to accept an MJH ban. Increased public sector salaries significantly increased public sector retention. However, non-financial interventions were also influential. Doctors, nurses, and rehabilitation therapists were willing to forgo 57.9%, 54.8%, and

Sciences Research Committee Individual Research Grant 2021 contributed R12,000.

Competing interests: The authors have declared that no competing interests exist.

38.9% of their salaries, respectively, for an improved clinical practice environment. Competent hospital management was also important. There was some preference heterogeneity. Nurses had significantly different preferences for certain attributes compared to the other two groups, and professionals currently engaged in MJH were significantly more opposed to banning MJH.

Conclusion

This study provides new information on health professional preferences for different MJH regulations. It confirms the importance of non-financial policy interventions in addressing MJH and the need to tailor MJH policy design.

Introduction

Multiple job holding (MJH) or dual practice, where individuals engage in more than one paid job simultaneously, has received increasing attention from labour market analysts, policymakers and researchers [1–4]. Variations in MJH across different labour markets are driven by differences in job opportunities, pay differentials, regulatory regimes and individual worker preferences [5,6].

Many public sector health professionals have a second job in the private sector [5]. This phenomenon has been reported in a range of different countries, at least for doctors [6,7] and nurses [8]. Theoretically, MJH by public health professionals could have contradictory effects on the performance of public healthcare systems [7,9]. On the one hand, MJH might increase the retention of skilled health professionals in the public sector, at a lower cost, which would enhance access, quality, efficiency and equity [10–13]. On the other hand, MJH professionals may decrease time and effort in their public jobs, suffer fatigue and burnout, divert profitable patients to their private practices, or appropriate public resources for private use, which would all compromise public system access, quality, efficiency and equity [6,14,15]. However, there is very little empirical evidence on the balance of those potential impacts in different settings, nor on the contextual factors that may promote more positive outcomes [16,17].

Different countries have adopted diverse strategies to regulate MJH among health professionals [17–19]. A few countries rely mainly on professional bodies and peers to regulate unprofessional and unethical practice [9]. *Restrictive* MJH policies include banning MJH completely, limiting it to specific groups of professionals, specifying maximum hours of permitted MJH, or restricting private practice earnings from MJH [18]. Other countries have focused on *reward-oriented* MJH policies which include raising public sector salaries, using non-financial incentives to encourage retention, offering more lucrative contracts to health professionals who agree to work exclusively in the public sector, or encouraging the development of private practices within public facilities [9,18].

Some researchers have developed theoretical economic models to explore the dynamics of MJH and predict the likely impact of different policy interventions [12,20–23]. There are also some narrative descriptions of individual country experiences with MJH regulation [18,24]. However, there are few rigorous empirical evaluations of the impact of MJH policies in the health sector, probably due to the methodological difficulties of designing such studies [17]. Indeed, the Cochrane systematic review of interventions to manage the MJH of health professionals found not a single eligible study to include in the review [25].

The likely impact of different MJH policies is determined by the behavioural responses of health professionals to policy changes. Surprisingly, this is an underexplored area in the

health MJH literature [26], even though the methodology is less of an obstacle. The model of Gonzalez and Macho-Stadler [21] makes theoretical assumptions about the probable motivations and responses of health professionals to MJH regulation but empirical studies are rare. For example, Jumpa *et al*'s [27] qualitative interviews with 20 Peruvian doctors included some discussion about their attitudes to MJH regulation. Our study attempts to address this knowledge gap by using a discrete choice experiment (DCE) to investigate the preferences of South African health professionals for different MJH regulatory policies.

The South African healthcare system continues to grapple with poor health outcomes, persistent health inequalities, and weak public sector management [28,29]. South Africa (SA) has a mixed healthcare system with a well-developed private sector. The private sector accounts for approximately 50% of national health expenditure, and employs over 60% of health professionals, even though it only services the most affluent 17% of the population able to afford private health insurance [30]. In SA, the Public Service Amendment Act and regulations make legal provisions for MJH, known as remunerative work outside of the public sector (RWOPS) [31–33]. The RWOPS policy was introduced to encourage the retention of health professionals in the public sector. It allows public sector employees to engage in additional paid work in the private sector provided that they have written permission from the relevant authority and that such work is performed outside of their public sector working hours [34]. There has been no formal evaluation of the impact of the RWOPS policy although one government investigation found evidence of abuse by doctors and weak monitoring [35]. There is also limited academic literature on RWOPS in SA [36].

DCEs are a quantitative methodology for evaluating the relative importance of different product characteristics on consumer choices [37]. In health, DCEs have mainly been used to assess patient preferences for different models of healthcare delivery [38,39] or health workers' valuation of different job characteristics affecting their job choices [40–42]. This paper adds to the small number of studies that have used DCEs to investigate aspects of MJH. Scott *et al* [43], included a baseline job characteristics DCE in their panel study with Australian medical specialists. One of the job attributes was the percentage of time spent in the private sector, which they then used to analyse the general preference for private sector work and its association with risk aversion. More recently, Pestana *et al* [44] did a standard job characteristics DCE with doctors in Portugal but compared the preferences of doctors working exclusively in the public sector with those engaged in MJH.

Our application is more novel. We developed a new DCE to investigate the preferences of South African public health professionals for different MJH policy interventions. We evaluate the trade-offs between *restrictive* regulations such as banning MJH, and *reward-oriented* policies such as an increase in public sector salaries or introducing other non-financial incentives to improve public sector retention. The study was done with public sector medical doctors, professional nurses, and rehabilitation therapists from two SA provinces. The inclusion of rehabilitation therapists and the comparison between the three professional groups are also novel in the literature. Information about the preferences and choices of health professionals will aid in predicting their likely behavioural responses to policy interventions which can inform the design and implementation of more effective MJH regulation.

Materials and methods

Study participants

The study was conducted from July 2022 to October 2022 at 29 public hospitals in two South African provinces, Gauteng (GP) and Mpumalanga (MP). The DCE was part of a cross-sectional survey on MJH conducted with medical doctors (generalists and medical specialists),

professional nurses, and rehabilitation therapists (occupational therapists, physiotherapists, speech therapists and/or audiologists) in the study hospitals in 2022. The initial calculated sample comprised 552 doctors and 502 nurses, evenly distributed between the two provinces, along with 237 rehabilitation therapists in Gauteng and 152 rehabilitation therapists in Mpumalanga.

Sampling methodology

We recruited public sector doctors, nurses, and rehabilitation therapists from 56 hospitals in Gauteng and Mpumalanga using a multi-stage sampling approach. A stratified sample of 11 hospitals per province was selected randomly from four categories (strata) of hospitals (district, regional, tertiary and central) through a proportional-to-size strategy [45]. GP's sample included five district, two regional, two tertiary, and two central hospitals, while MP's sample included six district, three regional, and two tertiary hospitals, as it has no central hospitals [46].

Within selected hospitals, six clinical disciplines anaesthesia, orthopaedics, paediatrics, obstetrics and gynaecology, internal medicine, and surgery were targeted. Wards within these disciplines were randomly chosen, and all doctors and nurses in the selected wards were invited to participate until target numbers were met. Rehabilitation therapists were recruited from 22 hospitals due to their smaller population size. Additional hospitals, four in MP and three in GP were included to meet sample size requirements for rehabilitation therapists [46].

DCE design

We followed the recommended standards for conducting a DCE study [47–49]. We used an unlabelled design with two alternatives plus an opt-out in each choice set. Respondents were asked to select between two public sector jobs (Job 1 and Job 2) containing various combinations of incentives and restrictions of MJH practice. The opt-out allowed respondents to refuse both of the choices offered to better reflect real-world labour market choices [49,50].

Several steps were involved in selecting the attributes and levels to be included in the design experiment. First, a literature review on MJH and MJH regulation was undertaken. In-depth interviews were then conducted with key stakeholders across South Africa to gather their perspectives on the effectiveness of current MJH policies and identify potential regulatory mechanisms or enhancements to address MJH. In-depth interviews were also conducted with doctors, nurses and rehabilitation therapists who have engaged in MJH, focusing on their motivations for participating in MJH, their views on the current regulatory mechanisms for MJH, and possible new incentives and restrictions related to MJH. Based on the qualitative findings, we designed a DCE to evaluate the preferences of health professionals for different MJH regulations versus different financial and non-financial incentives intended to make public sector jobs more attractive and thereby decrease MJH.

The final list of attributes and levels is shown in **Table 1**. Current RWOPS regulations in SA allow MJH after normal hours with restrictions. The DCE evaluated more restrictive (banning MJH) and more permissive (extended MJH hours and MJH permitted during normal hours) regulatory regimes. Salary supplementation is the main reason in the literature for MJH participation among health professionals [11,14–16], and a salary increase would be the main financial incentive to compensate health professionals for accepting MJH restrictions. This was included as a percentage change in current salary levels to allow comparison between the different professional groups, with four levels to be able to evaluate nonlinear effects. This attribute was also used to calculate willingness-to-pay estimates in terms of salary compensation for the other attributes. Four different employment contracts were included in the DCE

Table 1. DCE attributes and levels.

Attribute	Attribute levels
Employment contract	• Part-time (5/8) post with no paid overtime • Full-time post with no paid overtime • Full-time post with 8 hours/week paid overtime • Full-time post with 16 hours/week paid overtime
Current salary	• No salary increase • 25% salary increase • 50% salary increase • 75% salary increase
Clinical practice environment	• Shortages of staff, drugs, equipment, and infrastructure results in the provision of sub-optimal health care to patients • Availability of staff, drugs, equipment, and infrastructure results in the provision of good quality health care to patients
Conditions for RWOPS (MJH)	• RWOPS (MJH) prohibited • Approved RWOPS allowed, but only after working hours and limited to 8 hours per week • Approved RWOPS allowed, but only after working hours and limited to 16 hours per week • Approved RWOPS allowed during working hours but limited to 8 hours per week
Hospital management	• Sub-optimal management, unable to manage RWOPS in the hospital • Competent management, able to manage RWOPS in the hospital

https://doi.org/10.1371/journal.pone.0320854.t001

design because they have financial impacts that may influence MJH and because more flexible arrangements could be useful in the management of MJH. A part-time post would allow more time in the second job and might better reflect the hours currently worked by professionals engaging in MJH. Increased overtime in the primary job would be an alternative form of income supplementation to MJH. Two non-financial interventions that may influence MJH were also included, with two levels each. The clinical practice environment with adequate resources and staffing to enable quality care has been shown to be important in job selection between private and public sectors [11]. The final attribute focused on improved hospital management, particularly in relation to the management of MJH (RWOPS).

The final DCE design yielded 256 ($4^3 \times 2^2$) potential combinations. We first used dcreate in Stata [38] to generate an orthogonal experimental design with zero priors. This was used in the pilot study in two unsampled public hospitals to further refine the attributes and levels and to obtain priors to be used in producing the final design [50]. The final experimental design was generated using an efficient design strategy in Ngene with 16 choice sets. To minimise task fatigue the design was split into two blocks [51]. We also repeated one choice set to assess internal consistency and verify that participants actively participated in the task [51]. Thus, each participant answered nine choice sets in the survey. Each block was presented in two versions, with the order of choice tasks reversed in the second version to account for ordering effects. The four versions of the tool were assigned to participants randomly.

Data collection

Consenting study participants completed the self-administered questionnaire anonymously on tablets using REDCap (Research Electronic Data Capture) [52]. The DCE tool contained an introductory section explaining the task, attributes and levels (Supplemental File 1), and a practice question. An example of the DCE choice task presented to respondents is shown in **Fig 1**. The questionnaire also included questions on socio-demographics and engagement in MJH during the preceding 12 months.

Question 1: Which of these two public health sector jobs would you choose?

Job Characteristics	Job 1	Job 2	Neither
1. Employment contract	Full-time post with **16 hours/week paid overtime**	5/8 post with **no paid overtime**	
2. Current salary	75% salary increase	No salary increase	
3. Clinical practice environment	Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients	Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients	
4. Conditions for RWOPS	RWOPS prohibited	Approved RWOPS allowed during working hours but limited to 8 hours per week	
5. Hospital management	Competent management, able to manage RWOPS in the hospital	Sub-optimal management, unable to manage RWOPS in the hospital	
Which job would you choose?	○ Job 1	○ Job 2	○ Neither

Fig 1. DCE question example.

https://doi.org/10.1371/journal.pone.0320854.g001

Data analysis

Data was analysed in Stata 17. We used Stata's *svy* commands to account for the complex cluster sampling design, as explained previously [46]. Separate DCE analyses were conducted for the three professional groups. The results were weighted to reflect the population distribution of the study health professionals for different hospital types within the two provinces. Ten participants who did not make trade-offs were excluded from the DCE analysis. We compared the conditional logit model (clogit), mixed logit (MIXL) and generalised multinomial logit models (G-MNL). For the MIXL and G-MNL-II models, we used the Stata *mixlogit* [53] and *gmnl* [54] ado commands, respectively with appropriate weighting. The G-MNL model had the best fit. The G-MNL model accommodates both preference and scale heterogeneity [55]. Accounting for scale heterogeneity is important in comparing groups which may differ in the variance of their error terms [55]. The DCE results presented here are from the uncorrelated G-MNL-II model, using the responses which included the opt-out, with all parameters as random estimated with 500 Halton draws, and gamma equal to zero. We use the mean regression coefficients and confidence intervals to determine the relative importance of attributes, while the standard deviations of the coefficients in the G-MNL models reflect preference heterogeneity within the sample. Categorical attributes were entered as dummy variables for each level.

We compared the categorical and numerical treatment of the salary increase attribute. The results presented are for the numerical analysis of a linear 10% salary increment in all models.

Because individual characteristics do not vary within choice sets, their impact on preferences is evaluated statistically by including interaction terms between individual and design variables in the models [37]. Three different interaction models were used to assess the influence of health professional group, MJH experience and socio-demographic factors on attribute preferences. The socio-demographic characteristics evaluated were gender, marriage status, having dependants, coming from an urban province and having a professional specialisation, which were shown to be influential in our previous analyses [46]. We did not include all possible interactions but developed more parsimonious final models that include effects of the most statistical significance or policy importance. Although preliminary latent class analysis showed consistent findings, it offered no additional insights on the outcomes of interest, so we prioritised the G-MNL model for its parsimony and relevance.

We estimated the marginal willingness to pay (mWTP) for each attribute in WTP space from the G-MNL model results. We did this using the Stata *gmnl* command [54], with the mean of the salary variable constrained to one, a fixed parameter for the opt-out alternative specific constant, and random coefficients for all other variables. The mWTP indicates the percentage of salary participants were prepared to forgo for improvements in other attributes, or the additional salary required to compensate them for attributes that decreased utility. Finally, to aid in the interpretation of the policy relevance of the regression results, we modelled the uptake of different hypothetical jobs with different combinations of attribute levels. The likelihood of choosing different scenarios was predicted using the estimates obtained from the G-MNL model [54]. Alternative scenarios were compared to the current status quo as a baseline, and results are expressed as the change in uptake from the baseline [53].

Ethics

The Human Research Ethics Committee (Medical) of the University of the Witwatersrand in Johannesburg provided ethical approval for this study [M210262]. Study permission was also obtained from the relevant authorities in both provinces. All participants provided electronic informed consent by selecting 'yes' before completing the survey.

Results

Demographic characteristics

The survey response rate was 83.9%. **Table 2** displays the weighted demographic characteristics of the 1387 participants, which comprised 484 doctors (34.9%), 565 nurses (40.7%), and 338 rehabilitation therapists (24.4%). Rehabilitation therapists were the youngest group on average (32.4±8.7 years) while nurses were the oldest (43.7±10.4), with the doctors in between (39.9±9.7 years). Nurses (91.3%) and rehabilitation therapists (81.7%) were mostly female, but women made up only 44.5% of the doctors. Among doctors, 44.3% were specialists, compared to 32.1% of nurses. Rehabilitation therapists had the highest reported MJH participation at 38.9% (95% CI: 31.1% - 47.3%) in the previous 12 months, followed by doctors at 33.8% (95% CI: 26.4% - 42.1%) and nurses at 8.9% (95% CI: 6.8% - 11.6%). The differences in the prevalence of MJH among the three professional categories were statistically significant ($X^2 = 133.4$, $p<0.001$).

DCE results by professional group

G-MNL Regression. **Table 3** shows the G-MNL DCE results with separate models for each professional group (models 3.1, 3.2, and 3.3) as well as a pooled model (model 3.4) including interaction terms to test for statistically significant differences in group preferences.

Table 2. Study participant characteristics.

Characteristics	Doctors n (%)/ mean ±SD	Nurses n (%)/ mean ±SD	Rehabilitation therapists n (%)/ mean ±SD
n	484	565	338
Province			
Gauteng	395 (81.6%)	443 (78.4%)	241 (71.2%)
Mpumalanga	89 (18.4%)	122 (21.6%)	97 (28.8%)
Age	39.9 ± 9.7	43.7 ± 10.4	32.4 ± 8.7
Gender			
Male	264 (54.7%)	46 (8.2%)	56 (16.5%)
Female	217 (44.5%)	516 (91.3%)	276 (81.7%)
Other	4 (0.8%)	3 (0.5%)	6 (1.8%)
Marital status			
Single	153 (31.6%)	257 (45.5%)	200 (59.2%)
Married/Living together	301 (62.2%)	230 (40.7%)	129 (38.1%)
Divorced/Separated	22 (4.6%)	41 (7.3%)	5 (1.5%)
Widowed	8 (1.6%)	37 (6.5%)	4 (1.2%)
No. of dependents	4.2 ± 3.8	5.1 ± 3.4	2.4 ± 2.7
Category			
Generalist	269 (55.7%)	383 (67.9%)	338 (100.0%)
Specialist	215 (44.3%)	182 (32.1%)	NA
MJH (previous 12 months)			
No	320 (66.2%)	515 (91.1%)	207 (61.1%)
Yes	164 (33.8%)	50 (8.9%)	131 (38.9%)

MJH: multiple job holding, NA: Not applicable

https://doi.org/10.1371/journal.pone.0320854.t002

The G-MNL-II model had a better model fit than the MIXL and clogit models (Supplemental File 2). The signs of statistically significant attributes were in the expected direction. The coefficients for the opt-out alternative-specific constants were negative and significant for doctors and rehabilitation therapists signifying a preference for the offered jobs. The standard deviations in the G-MNL models were statistically significant for many attributes indicating significant preference heterogeneity even within the professional groups, and the significant *tau* for most models confirmed the existence of some scale heterogeneity.

In the stratified analyses (models 3.1, 3.2, and 3.3), none of the groups preferred the more permissive RWOPS regimes (16 hours per week after hours or 8 hours per week during work hours) compared to the status quo of 8 hours per week after hours. However, there was a large and statistically significant aversion to jobs that prohibited RWOPS in all three groups. The interaction model (model 3.4) showed that this aversion was stronger among rehabilitation therapists and doctors compared to nurses, although only statistically significant for rehabilitation therapists.

As an alternative to restricting MJH, the DCE included several attributes to make public sector jobs more attractive. However, the option of moving to a part-time post with fewer hours in the primary job was not appealing, the coefficient was negative for all three groups although only statistically significant for nurses and rehabilitation therapists. The interaction terms for this attribute in the pooled model indicate that nurses were significantly less enthusiastic about a part-time post than both doctors and rehabilitation therapists (model 3.4). In terms of financial incentives, doctors and rehabilitation therapists strongly preferred jobs

Table 3. DCE G-MNL results for the three health professional groups.

	Model 3.1				*Model 3.2*				*Model 3.3*				*Model 3.4*			
	Doctors				**Nurses**				**Rehabilitation therapists**				**Pooled + Interactions**			
	Mean (SE)		**SD (SE)**		**Mean (S)**		**SD (SE)**		**Mean (SE)**		**SD (SE)**		**Mean (SE)**		**SD (SE)**	
Full-time post, no paid overtime [a]	—		—		—		—		—		—		—		—	
Part-time post, no paid overtime	-0.20 (0.14)		0.47 (0.38)		-1.30 (0.33)	***	-1.11 (0.57)		-0.32 (0.15)	*	0.80 (0.28)	**	-0.83 (0.14)	***	0.52 (0.15)	***
Full-time post, 8hrs paid overtime	0.63 (0.13)	***	0.17 (0.25)		0.08 (0.26)		-0.36 (0.51)		0.40 (0.13)	**	-0.27 (0.32)		-0.09 (0.11)		0.18 (0.10)	
Full-time post, 16hrs paid overtime	0.78 (0.17)	***	0.90 (0.19)	***	-0.19 (0.25)		-1.36 (0.49)	**	0.43 (0.15)	**	-0.54 (0.35)		-0.19 (0.13)		-0.68 (0.16)	***
Salary increase (10%)	0.30 (0.02)	***	0.19 (0.03)	***	0.97 (0.18)	***	0.74 (0.17)	***	0.44 (0.03)	***	0.22 (0.03)	***	0.50 (0.03)	***	0.25 (0.02)	***
Staff & resources available	1.65 (0.15)	***	1.32 (0.16)	***	5.06 (0.94)	***	2.69 (0.48)	***	1.72 (0.16)	***	1.01 (0.16)	***	2.57 (0.15)	***	1.33 (0.09)	***
Competent management	0.46 (0.09)	***	0.49 (0.20)	*	0.90 (0.22)	***	1.16 (0.38)	**	0.47 (0.09)	***	0.81 (0.19)	***	0.43 (0.06)	***	0.68 (0.11)	***
RWOPS: 8hrs/week after hrs [a]	—		—		—		—		—		—		—		—	
RWOPS:16hrs/week after hrs	0.15 (0.12)		-0.70 (0.34)	*	0.06 (0.22)		-1.05 (0.42)	*	0.16 (0.12)		-0.17 (0.18)		-0.09 (0.13)		0.36 (0.30)	
RWOPS: 8hrs/week during work	0.03 (0.13)		-0.46 (0.71)		-0.51 (0.34)		0.32 (0.62)		-0.07 (0.14)		0.35 (0.31)		-0.24 (0.13)		0.16 (0.72)	
RWOPS prohibited	-1.39 (0.19)	***	-1.27 (0.17)	***	-1.42 (0.42)	**	-2.38 (0.59)	***	-1.75 (0.22)	***	1.18 (0.22)	***	-0.96 (0.14)	***	1.09 (0.13)	***
Doctorsx Part-time post													0.71 (0.19)	***		
Therapistsx Part-time post													0.57 (0.19)	**		
Doctorsx 8hrs overtime													0.74 (0.16)	***		
Therapistsx 8hrs overtime													0.50 (0.18)	**		
Doctorsx 16hrs overtime													1.01 (0.20)	***		
Therapistsx 16hrs overtime													0.65 (0.20)	**		
Doctorsx 10% Salary increase													-0.21 (0.03)	***		
Therapistsx 10% Salary increase													-0.06 (0.03)			
Doctorsx Staff & resources													-0.94 (0.16)	***		
Therapistsx Staff & resources													-0.84 (0.16)	***		
Doctorsx 16hrs RWOPS after hrs													0.29 (0.18)			
Therapistsx 16hrs RWOPS after hrs													0.25 (0.18)			
Doctorsx 8hrs RWOPS during work													0.28 (0.18)			
Therapistsx 8hrs RWOPS during work													0.22 (0.18)			

(Continued)

Table 3. (Continued)

	Model 3.1				*Model 3.2*				*Model 3.3*				*Model 3.4*			
	Doctors				**Nurses**				**Rehabilitation therapists**				**Pooled + Interactions**			
	Mean (SE)		**SD (SE)**		**Mean (S)**		**SD (SE)**		**Mean (SE)**		**SD (SE)**		**Mean (SE)**		**SD (SE)**	
Doctorsx RWOPS prohibited													-0.32 (0.19)			
Therapistsx RWOPS prohibited													-0.75 (0.21)	***		
Opt-out	1.19 (0.41)	**	2.75 (0.26)	***	0.14 (0.39)		2.30 (0.31)	***	1.04 (0.51)	*	2.47 (0.39)	***	0.79 (0.30)	**	2.49 (0.32)	***
Tau	-0.01 (0.07)				0.95 (0.15)	***			-0.25 (0.70)	***			0.17 (0.14)			
n	*11 616*				*13 536*				*8 136*				*33 288*			
LL	*-2 866.90*				*-2 440.85*				*-1 773.42*				*-7 133.29*			
AIC	*5 775.81*				*4 923.70*				*3 588.83*				*14 340.59*			
BIC	*5 930.37*				*5 081.48*				*3 735.92*				*14 651.86*			
p value	*<0.001*				*<0.001*				*<0.001*				*<0.001*			

*p<0.05 **p<0.01 ***p<0.001, [a] Reference category, Therapists – rehabilitation therapists.

https://doi.org/10.1371/journal.pone.0320854.t003

with additional overtime but nurses did not. All three professional groups derived significantly higher utility from jobs with higher salaries. The coefficient for a 10% salary increase was highest for nurses, but only the difference with doctors was statistically significant in the pooled model. Regarding non-financial incentives, a positive practice environment with available staff and resources was the most important attribute determining the job choices of the three groups. The coefficients for this attribute were significantly larger than those for a 10% salary increase. Although highly influential for all three groups in the separate models, the interaction terms in the pooled model indicate that the practice environment was significantly more valued by nurses than doctors and rehabilitation therapists (model 3.4). Competent management able to manage RWOPS was also a statistically significant determinant of job choices in all three professional groups (models 3.1, 3.2, and 3.3).

Marginal willingness to pay. Table 4 presents the basic DCE results by professional group in terms of marginal willingness to pay (mWTP). A negative mWTP indicates the amount of salary compensation respondents would require on average to accept an unattractive job attribute, whereas a positive mWTP represents the amount of salary that respondents would be prepared to forgo to keep a positive attribute. According to the DCE results, doctors would require a 45.7% salary increase to accept a job that prohibits MJH, whereas rehabilitation therapists would need 42.8%, and nurses 20.0%. At the other extreme, for a job with adequate resources and staffing which enabled them to provide quality care to patients, doctors, nurses, and rehabilitation therapists were willing to forgo 57.9%, 54.8%, and 38.9% of their salaries respectively. Similarly, for competent hospital management able to manage MJH, doctors, nurses, and rehabilitation therapists were ready to trade 13.7%, 7.7%, and 11.6% of their salaries, respectively. In terms of overtime opportunities, doctors equated a job with 16 hours of overtime to a 23.7% increase in salary, while it was 6.7% for rehabilitation therapists (Table 4).

Predicted job uptake. Table 5 uses the G-MNL DCE results to model the impact of different combinations of attributes on job uptake by the different professional groups. This allows us to evaluate the effectiveness of different compensatory interventions which could be used to offset the impact of an MJH ban. The selected baseline job for comparison was a

Table 4. Marginal willingness to pay (mWTP), by professional group.

	Doctors		Nurses		Rehabilitation therapists	
	mWTP	95% CI	mWTP	95% CI	mWTP	95% CI
Part-time post	-8.2	[-17.9, 1.5]	-15.3	[-21.9, -8.7]	-9.5	[-16.3, -2.7]
8 hrs/week paid OT	21.2	[12.7, 29.8]	-3.3	[-8.1, 1.5]	6.6	[0.3, 12.9]
16 hrs/week paid OT	23.7	[13.1, 34.3]	-5.0	[-9.8, -0.2]	6.7	[0.0, 13.3]
Staff & resources available	57.9	[48.7, 67.1]	54.8	[49.1, 60.5]	38.9	[33.7, 44.1]
Competent management	13.7	[7.7, 19.6]	7.7	[3.9, 11.4]	11.6	[6.9, 16.4]
RWOPS: 16 hrs/week, after work	7.0	[-1.6, 15.6]	-3.1	[-8.5, 2.3]	3.6	[-2.0, 9.2]
RWOPS: 8 hrs/week, during work	3.0	[-5.7, 11.7]	-4.1	[-9.8, 1.5]	-1.8	[-8.0, 4.4]
RWOPS prohibited	-45.7	[-56.3, -35.0]	-20.0	[-26.0, -13.9]	-42.8	[-51.0, -34.6]

mWTP expressed as % increase in salary, results from G-MNL model in WTP space, OT: overtime.

https://doi.org/10.1371/journal.pone.0320854.t004

Table 5. Modelling the impact of different financial and non-financial incentives to counteract a ban on MJH, by professional group.

Attributes	Baseline	Ban MJH	MJH Ban + Financial Incentives					MJH Ban + Non-Financial Incentives		
		Scenario 1	*Scenario 2*	*Scenario 3*	*Scenario 4*	*Scenario 5*	*Scenario 6*	*Scenario 7*	*Scenario 8*	*Scenario 9*
Conditions for RWOPS (MJH)	**8hrs/week after hrs**	**Prohibited**	**Prohibited**	**Prohibited**	**Prohibited**	**Prohibited**	**Prohibited**	**Prohibited**	**Prohibited**	**Prohibited**
Employment contract	F/T post, no paid OT	F/T post, no paid OT	F/T post, no paid OT	F/T post, no paid OT	F/T post, no paid OT	**8 hr OT/ week**	**16 hrs OT/week**	F/T post, no paid OT	F/T post, no paid OT	F/T post, no paid OT
Salary increase	0%	0%	**25%**	**50%**	**75%**	0%	0%	0%	0%	0%
Clinical environment	Inadequate	Inadequate	Inadequate	Inadequate	Inadequate	Inadequate	Inadequate	**Adequate**	Inadequate	**Adequate**
Hospital management	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	**Competent**	**Competent**
Professional Group	**Uptake (%)**	**Change in Uptake from Baseline Scenario (Percentage points)**								
Doctors	22.0%	-11.0%	-4.1%	+5.2%	+15.1%	-5.5%	-2.8%	+8.0%	-6.7%	+13.7%
Nurses	28.8%	-6.8%	+15.6%	+32.1%	+41.2%	-6.1%	-6.7%	+35.3%	+1.6%	+40.5%
Rehab therapists	22.7%	-14.0%	-4.3%	+9.9%	+24.6%	-11.1%	-10.4%	+3.9%	-9.5%	+10.4%

Results from the G-MNL model stratified by professional group.

OT: overtime, Hrs: hours, MJH: multiple job holding.

https://doi.org/10.1371/journal.pone.0320854.t005

full-time post without overtime and no salary increase, with an inadequate clinical practice environment and sub-optimal hospital management but allowing 8 hours of RWOPS after normal hours. The model estimated the uptake of such a job to be 22.0% for doctors, 28.8% for nurses and 22.7% for rehabilitation therapists.

If MJH were prohibited this would decrease job uptake by 11.0, 6.8 and 14.0 percentage points for doctors, nurses and rehabilitation therapists, respectively (Scenario 1). The remaining scenarios evaluate the financial and non-financial incentives required to counteract the impact of a ban on MJH. In terms of financial incentives, a salary increase of at least 50% (Scenario 3) would be required before the decrease in job uptake is reversed for all three groups. Allowing overtime in the primary job would moderate the impact of a ban but not compensate completely in any of the groups (Scenarios 4 and 5). The model indicates that non-financial incentives could persuade health professionals to stay in public posts that

banned MJH. A positive practice environment that supports quality care would counteract the impact of a ban for doctors, nurses and rehabilitation therapists with increased uptake of 8.0, 35.3 and 3.9 percentage points above baseline respectively (Scenario 7). Competent hospital management would not be sufficient alone (Scenario 8) but would make an effective package when combined with an improved practice environment for doctors, nurses and rehabilitation therapists improving uptake by 13.7, 40.5 and 10.4 percentage points respectively (Scenario 9).

DCE results by multiple job holding status

Table 6 compares the G-MNL DCE results for health professionals who did not engage in MJH in the previous 12 months with those who did, in separate models for each group (models 6.1 and 6.2) as well as a pooled model including interactions between MJH practice and the DCE attributes (model 6.3). The significance and relative importance of the DCE attributes were comparable to the results in Table 3 and similar between the MJH and non-MJH professionals. However, professionals who engaged in MJH were more strongly opposed to jobs which prohibited RWOPS than those who did not engage in MJH, which was confirmed

Table 6. DCE G-MNL results for professionals engaged and not engaged in MJH.

	Model 6.1				*Model 6.2*				*Model 6.3*			
	Non-MJH				**MJH**				**Pooled + Interactions**			
	Mean (SE)		**SD (SE)**		**Mean (SE)**		**SD (SE)**		**Mean (SE)**		**SD (SE)**	
Full-time post, no paid overtime [a]	—		—		—		—		—		—	
Part-time post, no paid overtime	-0.51 (0.13)	***	0.66 (0.27)	*	-0.27 (0.17)		-0.75 (0.20)	***	-0.38 (0.08)	***	-0.51 (0.15)	**
Full-time post, 8hrs paid overtime	0.40 (0.11)	***	0.08 (0.08)		0.44 (0.17)	**	-0.19 (0.33)		0.35 (0.07)	***	0.17 (0.15)	
Full-time post, 16hrs paid overtime	0.41 (0.14)	**	0.75 (0.24)	**	0.49 (0.19)	*	-0.73 (0.27)	**	0.37 (0.09)	***	-0.72 (0.14)	***
Salary increase (10%)	0.52 (0.08)	***	0.33 (0.05)	***	0.35 (0.03)	***	0.22 (0.03)	***	0.43 (0.02)	***	0.27 (0.02)	***
Staff & resources available	2.57 (0.35)	***	1.65 (0.26)	***	1.58 (0.20)	***	1.23 (0.20)	***	2.16 (0.11)	***	1.35 (0.09)	***
Competent management	0.61 (0.12)	***	0.59 (0.20)	**	0.32 (0.12)	**	0.70 (0.22)	**	0.51 (0.06)	***	0.57 (0.122)	***
RWOPS: 8hrs/week after hrs [a]	—		—		—		—		—		—	
RWOPS:16hrs/week after hrs	0.09 (0.10)		-0.46 (0.26)		0.17 (0.16)		0.82 (0.26)	**	0.10 (0.08)		0.37 (0.24)	
RWOPS: 8hrs/week during work	-0.20 (0.14)		0.12 (0.19)		0.02 (0.15)		0.20 (0.31)		-0.09 (0.09)		-0.09 (0.25)	
RWOPS prohibited	-1.21 (0.22)	***	1.31 (0.27)	***	-2.02 (0.26)	***	-1.28 (0.17)	***	-1.00 (0.11)	***	1.06 (0.12)	***
MJH x 10% Salary increase									-0.10 (0.03)	**		
MJH x Staff & resources									-0.72 (0.15)	***		
MJH x Competent management									-0.27 (0.11)	*		
MJH x 16 hrs RWOPS after hrs									0.06 (0.16)			
MJH x 8 hrs RWOPS during work									0.08 (0.16)			
MJH x RWOPS prohibited									-0.88 (0.19)	***		
Opt-out	0.43 (0.29)		2.38 (0.27)	***	1.45 (0.46)	**	2.77 (0.43)	***	0.65 (0.25)	*	2.59 (0.23)	***
Tau	-0.56 (0.15)	***			0.09 (0.10)				0.20 (0.12)			
n	*25 632*						*7 656*		*33 288*			
LL	*-5 213.26*						*-1 973.61*		*-7 210.55*			
AIC	*10 468.52*						*3 989.22*		*14 445.11*			
BIC	*10 639.70*						*4 135.03*		*14 702.26*			
p value	*<0.001*						*<0.001*		*<0.001*			

*p<0.05 **p<0.01 ***p<0.001, [a] Reference category, MJH: engaged in multiple job holding, Non-MJH: not engaged in multiple job holding

https://doi.org/10.1371/journal.pone.0320854.t006

to be statistically significant in model 6.3. Interestingly, the non-MJH professionals placed a significantly higher value on a 10% salary increase, a better clinical practice environment and more competent management than those currently engaged in MJH (model 6.3)

DCE results for different socio-demographic groups

We ran a pooled G-MNL model with socio-demographic interactions to evaluate their impact on attribute preferences (Supplemental File 3). There were no significant differences between male and female doctors, nurses, and rehabilitation therapists in avoiding jobs that prohibited MJH. Married nurses did not differ from single nurses in their preference for jobs that prohibited MJH. Furthermore, generalist doctors valued salary increases more than specialists, whereas nurses from Gauteng province (GP) valued salary increases more than those in Mpumalanga province (MP). All sub-groups preferred a supportive clinical environment, but this preference was significantly stronger among female doctors, female rehabilitation therapists, and nurses from GP.

Discussion

We presented the results of a novel DCE evaluating the preferences of South African public sector medical doctors, professional nurses and rehabilitation therapists for different MJH regulatory interventions. We found that all three groups were significantly opposed to a ban on MJH (**Table 3**). They would refuse jobs that did not permit MJH or require a substantial increase in salary to accept them. Interestingly, none of the groups were clearly in favour of doubling the hours of permitted MJH or allowing MJH during working hours.

All three professional groups valued salary increases highly, and improved basic remuneration would significantly increase the uptake of public sector jobs. Doctors and rehabilitation therapists were prepared to trade higher salaries for increased overtime allowances, but nurses were not. None of the groups were in favour of part-time posts, even though it might be a more accurate representation of the current split between primary and secondary jobs and would allow more official time in their second private jobs. Improving the clinical practice environment, with adequate staffing and resources to ensure quality patient care, would be a powerful non-financial incentive to increase public sector retention. All three professional groups were prepared to forgo a large proportion of their salaries for such improvements. More competent hospital management was slightly less important but still a significant determinant of job choices.

There is some support from the DCE that a ban on MJH could be offset by improvements in other job characteristics. The respondents accepted posts that did not permit MJH if there was adequate compensation. A significantly increased salary or a well-resourced clinical environment were sufficient alone to overcome the health professional's aversion to an MJH ban, but additional overtime or better hospital management would need to be combined with other financial or non-financial incentives. The ranking of attributes was similar between the three professional groups but there were some statistically significant differences in the magnitude of their preferences. The coefficients for doctors and rehabilitation therapists were mostly comparable to each other. However, the nurses were significantly less enthusiastic about part-time posts and overtime and valued the salary increase and clinical practice environment more highly, than the other two groups. The preferences of health professionals who had engaged in MJH in the previous year were also qualitatively similar to those that had not (**Table 6**). However, MJH professionals were significantly more opposed to a MJH ban and valued the salary increase and clinical practice environment less than the non-MJH professionals.

This research makes an important contribution to the small literature on the opinions of health professionals about MJH regulation. It is the first study to use a DCE to directly quantify the trade-offs between different MJH policy interventions in the health sector. It is also innovative in comparing doctors, nurses and rehabilitation therapists, and achieved a good response rate of 83.9% which limits selection bias. Other methodological strengths were that we used a rigorous G-MNL model for the DCE analysis and statistically tested differences in preferences between groups through interaction models.

The study also has several limitations. DCEs are often criticised for measuring stated rather than revealed preferences, although there is some recent evidence of their external validity in predicting real choices [56]. Due to both statistical and cognitive constraints, DCEs are always limited in the number of attributes or levels that can be included. We focused on policy interventions relevant to the SA context, as identified by key informants and health professionals in the qualitative interviews. The study was based in only two provinces and may not be generalisable to the entire country, although Gauteng and Mpumalanga were chosen because they are fairly representative of urban and rural provinces respectively.

The likely effectiveness of different MJH regulations will vary from one context to another. Many authors have proposed that MJH interventions in low- and middle-income countries (LMICs) will need to be different to those in high-income countries (HICs) [5,6,17,18,21,57]. For example, Garcia-Prado & Gonzalez [9] suggest that *reward-oriented* MJH policies are more appropriate in HICs, while *restrictive* policies are recommended for LMICs.

Health policymakers and managers frustrated with the absenteeism of public sector employees engaged in MJH, may be supportive of an outright ban of MJH [58], and this has been tried in a few countries [18]. The theoretical models provide inconclusive advice. Brekke and Sørgard [23] found that an MJH ban may be efficient under certain conditions, while Gonzalez & Macho-Stadler [21] conclude that banning MJH is never desirable, even if a ban could be enforced. However, the empirical country case studies suggest that an MJH ban has limited impact because it is difficult to enforce, particularly in LMICs but even in HICs with stronger regulatory capacity [18]. The risk is that a complete MJH ban might lead to an exodus of skilled health professionals from the public sector to the private sector, undermining the objective of such an intervention which would be to increase access and quality of care for public patients. The respondents in our DCE were opposed to an MJH ban, and the model predicts a significant impact on job uptake. However, the size of the shift was perhaps not as large as might have been expected from the threats of professional groups opposed to a ban [59]. There may be sufficient advantages for staying in a public post in South Africa (SA) even if MJH is banned, or it could be that health professionals are not completely convinced that a ban would be enforced. The fact that compliance with current RWOPS regulations in SA is low with seemingly few consequences [35,58], may support the latter reasoning.

Pay differentials between the public and private health sectors are a key driver of MJH and increased public sector salaries might make MJH less necessary for health professionals. Unsurprisingly, increased salary levels strongly influenced job choices in our DCE. We also found that doctors, nurses and rehabilitation therapists would require salary increases of 45.7%, 20.0% and 42.8% respectively, to accept a post that did not allow MJH. In Gruen *et al*'s [60] survey of MJH doctors in Bangladesh, 100% of primary care doctors and 54% of doctors in secondary and tertiary care said they would give up MJH completely if they were paid higher government salaries. However, the amount of the increase required was not specified. Similarly, in Do and Do's [61] survey of MJH doctors in Vietnam, 65% of doctors said they would give up their private practices under specific conditions. Approximately 29% of those willing to leave private practice desired a higher basic pay, and the proposed increase was 2.7 times their current pay. Unfortunately, fiscal constraints mean that increasing public sector

remuneration is seldom affordable, particularly in LMICs where pay differentials between the public and private sectors are large and government revenue is low [9,18]. Even in HICs that have been able to increase public sector salaries, the evidence is mixed. Sæther [Unpublished work] used a discrete choice model to analyse the revealed preferences of Norwegian doctors and found that a 10% increase in public sector salary levels resulted in a statistically significant but small shift in time allocation away from private practices towards public sector work. However, Mossialos *et al* [24] report that a raise in public doctor salaries had little impact on MJH in Greece. SA has also already experimented with similar reforms. The so-called Occupational Specific Dispensation (OSD) policy was an increase in public sector salaries, implemented for different categories of health professionals from 2007 to 2009, to improve public sector retention. Unfortunately, the policy was not formally evaluated, and the effects on retention and MJH are equivocal [62,63]. Furthermore, the national economic and fiscal climate has been much less favourable in recent years [64], which makes any significant increase in government salaries extremely unlikely in the near future.

Although economic motivations are generally the most important, it is widely accepted that other non-financial considerations play a role in the decision of health professionals to engage in MJH [5]. A second job in the private sector may provide job complementarity, diversity, autonomy, the learning of new skills or career development [5,7,8,43]. Our previous descriptive analysis, confirms those motivations for MJH in this sample of health professionals [46]. Institutional factors are also relevant [5,9]. For example, Hoogland *et al* [6] found that poor working conditions, inadequate facilities and shortages of drugs and equipment in the public sector, were noted as reasons for MJH by doctors in approximately one-third of the 157 countries included in their review, with similar levels of complaints from both LMICs and HICs. However, despite this recognition, non-financial interventions have received much less attention in the literature on possible MJH policies [17,18,21]. Non-financial attributes were as important as financial attributes in this DCE. Improved public sector working conditions and facility management would be effective interventions in increasing public sector retention, even if MJH was banned. However, it must also be recognised that these are not simple problems to address in SA. Declining public health budgets and the deterioration of public health facilities and services have been noted for years [28,29], as has the poor monitoring and regulation of MJH by public health managers [35,65,66].

Lastly, our conclusions about the preferences of MJH and non-MJH professionals were comparable to those of Pestana *et al* [44]. They also found that the two groups had similar preferences and that professionals working exclusively in the public sector were significantly more concerned about the clinical practice environment. This would support the arguments for targeting non-financial interventions to increase public sector retention and decrease MJH.

Conclusions

Our DCE study provides new insights into the preferences of different groups of health professionals for different MJH regulatory interventions and confirms the importance of non-financial considerations in MJH decision-making. Such information is useful in the design and tailoring of MJH regulation, particularly in LMICs. However, significantly improved government finances, management and regulatory capacity will be required for the successful implementation of any MJH interventions.

Supporting information

S1 File. Choice task instructions.
(TIF)

S2 File. Comparison of the c-logit, MIXL and uncorrelated G-MNL models.
(DOCX)

S3 File. Interaction model of socio-demographic factors.
(DOCX)

Acknowledgments

We thank the participants for taking part in the survey and the hospital management for facilitating the study.

Author contributions

Conceptualization: Busisiwe Precious Matiwane, Laetitia C. Rispel, Duane Blaauw.

Data curation: Busisiwe Precious Matiwane, Duane Blaauw.

Formal analysis: Busisiwe Precious Matiwane, Duane Blaauw.

Funding acquisition: Busisiwe Precious Matiwane, Laetitia C. Rispel.

Investigation: Busisiwe Precious Matiwane.

Methodology: Busisiwe Precious Matiwane, Laetitia C. Rispel, Duane Blaauw.

Project administration: Busisiwe Precious Matiwane.

Resources: Busisiwe Precious Matiwane, Laetitia C. Rispel.

Supervision: Laetitia C. Rispel, Duane Blaauw.

Validation: Busisiwe Precious Matiwane, Duane Blaauw.

Visualization: Busisiwe Precious Matiwane, Duane Blaauw.

Writing – original draft: Busisiwe Precious Matiwane.

Writing – review & editing: Busisiwe Precious Matiwane, Laetitia C. Rispel, Duane Blaauw.

References

1. Bouwhuis S, Geuskens GA, Boot CRL, Bongers PM, van der Beek AJ. Predictors of transitions from single to multiple job holding: Results of a longitudinal study among employees aged 45-64 in the Netherlands. Am J Ind Med. 2017;60(8):696–710. https://doi.org/10.1002/ajim.22738 PMID: 28692193
2. Campion ED, Csillag B. Multiple jobholding motivations and experiences: A typology and latent profile analysis. J Appl Psychol. 2022;107(8):1261–87. https://doi.org/10.1037/apl0000920 PMID: 35834213
3. Hirsch BT, Husain MM, Winters JV. The Puzzling Pattern of Multiple Job Holding across U.S. Labor Markets. Southern Economic Journal. 2017;84(1):26–51. https://doi.org/10.1002/soej.12225
4. Panos GA, Pouliakas K, Zangelidis A. Multiple Job Holding, Skill Diversification, and Mobility. Industrial Relations. 2014;53(2):223–72. https://doi.org/10.1111/irel.12055
5. Berman P, Cuizon D. Multiple public-private jobholding of health care providers in developing countries: An exploration of theory and evidence. Centre HSR, editor. London: DFID Health Systems Resource Centre; 2004. Available from: https://assets.publishing.service.gov.uk/media/57a08cd5ed-915d622c0015ed/Multiple-public-private-jobholding-of-healthcare-providers.pdf.
6. Hoogland R, Hoogland L, Handayani K, Sitaresmi M, Kaspers G, Mostert S. Global Problem of Physician Dual Practices: A Literature Review. Iranian Journal of Public Health. 2022;51(7):1444-60. https://doi.org/10.18502/ijph.v51i7.10079 PMID: 2688463793.
7. Socha KZ, Bech M. Physician dual practice: a review of literature. Health Policy. 2011;102(1):1–7. https://doi.org/10.1016/j.healthpol.2010.10.017 PMID: 21094557
8. Russo G, Fronteira I, Jesus TS, Buchan J. Understanding nurses' dual practice: a scoping review of what we know and what we still need to ask on nurses holding multiple jobs. Hum Resour Health. 2018;16(1):14. https://doi.org/10.1186/s12960-018-0276-x PMID: 29471846
9. García-Prado A, González P. Whom do physicians work for? An analysis of dual practice in the health sector. J Health Polit Policy Law. 2011;36(2):265–94. https://doi.org/10.1215/03616878-1222721 PMID: 21543706

10. Johannessen K-A, Hagen TP. Physicians' engagement in dual practices and the effects on labor supply in public hospitals: results from a register-based study. BMC Health Serv Res. 2014;14:299. https://doi.org/10.1186/1472-6963-14-299 PMID: 25011448
11. Moghri J, Arab M, Rashidian A, Sari A. Physician Dual Practice: A Descriptive Mapping Review of Literature. Iranian Journal of Public Health. 2016.;45(3):278-88. PMID: 1778453658; PMCID: PMC4851741.
12. González P. Should physicians' dual practice be limited? An incentive approach. Health Econ. 2004;13(6):505–24. https://doi.org/10.1002/hec.890 PMID: 15185383
13. Anthony C, Moore M, Hilborne L, Rooney A, Hickey S, Ryu Y. How to conduct a discrete choice experiment for health workforce recruitment and retention in remote and rural areas: a user guide with case studies. Rand Health Quarterly. 2018;8(2).
14. Rispel LC, Blaauw D. The health system consequences of agency nursing and moonlighting in South Africa. Glob Health Action. 2015;8:26683. https://doi.org/10.3402/gha.v8.26683 PMID: 25971400
15. Moghri J, Arab M, Rashidian A, Sari A. Physician Dual Practice: A Descriptive Mapping Review of Literature. Iranian Journal of Public Health. 2016;45(3):278-88. PMID: 1778453658.
16. Ferrinho P, Van Lerberghe W, Fronteira I, Hipólito F, Biscaia A. Dual practice in the health sector: review of the evidence. Hum Resour Health. 2004;2(1):14. https://doi.org/10.1186/1478-4491-2-14 PMID: 15509305
17. McPake B, Russo G, Hipgrave D, Hort K, Campbell J. Implications of dual practice for universal health coverage. Bull World Health Organ. 2016;94(2):142–6. https://doi.org/10.2471/BLT.14.151894 PMID: 26908963
18. García-Prado A, González P. Policy and regulatory responses to dual practice in the health sector. Health Policy. 2007;84(2–3):142–52. https://doi.org/10.1016/j.healthpol.2007.03.006 PMID: 17449134
19. Hipgrave DB, Hort K. Dual practice by doctors working in South and East Asia: a review of its origins, scope and impact, and the options for regulation. Health Policy and Planning. 2013;29(6): 703–716. doi: 10.1093/heapol/czt053
20. Eggleston K, Bir A. Physician dual practice. Health Policy. 2006;78(2–3):157–66. https://doi.org/10.1016/j.healthpol.2005.09.007 PMID: 16253383
21. González P, Macho-Stadler I. A theoretical approach to dual practice regulations in the health sector. J Health Econ. 2013;32(1):66–87. https://doi.org/10.1016/j.jhealeco.2012.08.005 PMID: 23202256
22. Biglaiser G, Albert Ma C. Moonlighting: public service and private practice. The RAND J of Economics. 2007;38(4):1113–33. https://doi.org/10.1111/j.0741-6261.2007.00128.x
23. Brekke KR, Sørgard L. Public versus private health care in a national health service. Health Econ. 2007;16(6):579–601. https://doi.org/10.1002/hec.1185 PMID: 17163459
24. Mossialos E, Allin S, Davaki K. Analysing the Greek health system: a tale of fragmentation and inertia. Health Econ. 2005;14(Suppl 1):S151-68. https://doi.org/10.1002/hec.1033 PMID: 16161195
25. Kiwanuka SN, Rutebemberwa E, Nalwadda C, Okui O, Ssengooba F, Kinengyere AA, et al. Interventions to manage dual practice among health workers. Cochrane Database Syst Rev. 2011;2011(7):CD008405. https://doi.org/10.1002/14651858.CD008405.pub2 PMID: 21735429
26. Paina L, Bennett S, Ssengooba F, Peters DH. Advancing the application of systems thinking in health: exploring dual practice and its management in Kampala, Uganda. Health Res Policy Syst. 2014;12:41. https://doi.org/10.1186/1478-4505-12-41 PMID: 25134522
27. Jumpa M, Jan S, Mills A. The role of regulation in influencing income-generating activities among public sector doctors in Peru. Hum Resour Health. 2007;5:5. https://doi.org/10.1186/1478-4491-5-5 PMID: 17324290
28. Mayosi BM, Lawn JE, van Niekerk A, Bradshaw D, Abdool Karim SS, Coovadia HM, et al. Health in South Africa: changes and challenges since 2009. Lancet. 2012;380(9858):2029–43. https://doi.org/10.1016/S0140-6736(12)61814-5 PMID: 23201214
29. Rispel L. Analysing the progress and fault lines of health sector transformation in South Africa. South African health review. 2016.;Available from: https://hdl.handle.net/10520/EJC189322(1):17-23.
30. Ataguba JE, McIntyre D. The incidence of health financing in South Africa: findings from a recent data set. Health Econ Policy Law. 2018;13(1):68–91. https://doi.org/10.1017/S1744133117000196 PMID: 28720160
31. Department of Public Service and Administration. Directive on other remunerative work outside the employee's employment in the relevant department as contemplated in section 30 of the Public Service Act, 1994. 21 February 2024. Republic of South Africa: Department of Public Service and Administration; 2024. Available from: https://www.dpsa.gov.za/dpsa2g/documents/iem/2024/Directive%20on%20Other%20Remunerative%20Work%20Outside%20an%20Employees%20Employment.pdf.

32. Department of Public Service and Administration. Guide on managing other remunerative work in the public service. Republic of South Africa Department of Public Service and Administration; 2020. Available from: https://www.dpsa.gov.za/dpsa2g/documents/iem/2020/Guide%20on%20Other%20Remunerative%20Work%20in%20the%20%20Public%20Service.pdf.

33. Department of Public Service and Administration. Public Service Act, # 103 of 1994. Pretoria: Government Printer, 1994. Available from: https://www.dpsa.gov.za/dpsa2g/documents/acts&regulations/psact1994/PublicServiceAct.pdf

34. Department of Public Service and Administration. Code of Conduct, Public Service Regulations, 2016. Pretoria, South Africa.: Department of Public Service and Administration; 2016. Available from: https://www.dpsa.gov.za/dpsa2g/documents/iem/2016/Public%20Service%20Regulations%202016%20Part%201.pdf

35. Public Service Commission. Remunerative work outside the public service: an investigation undertaken in the Gauteng Provincial Health Sector. Pretoria: Public Service Commission, 2004. Available from: https://www.psc.gov.za/documents/2004/remunerative_woroutside_psc.pdf.

36. Ashmore J, Gilson L. Conceptualizing the impacts of dual practice on the retention of public sector specialists - evidence from South Africa. Hum Resour Health. 2015;13(1):3. https://doi.org/10.1186/1478-4491-13-3 PMID: 25600159

37. Louviere JJ, Hensher DA, Swait JD. Stated choice methods: analysis and applications. Cambridge: Cambridge university press; 2000.

38. Ryan M, Gerard K, Amaya-Amaya M. Discrete choice experiments in a nutshell. Using discrete choice experiments to value health and health care: Springer; 2008. p. 13-46.

39. Ryan M, Gerard K, Watson V, Street D, Burgess L. Practical issues in conducting a discrete choice experiment. In: Ryan, M, Gerard, K, Amaya-Amaya, M (eds) Using Discrete Choice Experiments to Value Health and Health Care The Economics of Non-Market Goods and Resources. 11. Dordrecht: Springer; 2008. p. 73-97.

40. Lagarde M, Blaauw D. A review of the application and contribution of discrete choice experiments to inform human resources policy interventions. Hum Resour Health. 2009;7:62. https://doi.org/10.1186/1478-4491-7-62 PMID: 19630965

41. Scott A. Eliciting GPs' preferences for pecuniary and non-pecuniary job characteristics. J Health Econ. 2001;20(3):329–47. https://doi.org/10.1016/s0167-6296(00)00083-7 PMID: 11373834

42. Blaauw D, Erasmus E, Pagaiya N, Tangcharoensathein V, Mullei K, Mudhune S, et al. Policy interventions that attract nurses to rural areas: a multicountry discrete choice experiment. Bull World Health Organ. 2010;88(5):350–6. https://doi.org/10.2471/BLT.09.072918 PMID: 20461141

43. Scott A, Holte JH, Witt J. Preferences of physicians for public and private sector work. Hum Resour Health. 2020;18(1):59. https://doi.org/10.1186/s12960-020-00498-4 PMID: 32778131

44. Pestana J, Frutuoso J, Costa E, Fonseca F. Heterogeneity in physician's job preferences in a dual practice context - Evidence from a DCE. Soc Sci Med. 2024;343:116551. https://doi.org/10.1016/j.socscimed.2023.116551 PMID: 38242030

45. Skinner CJ. Probability Proportional to Size (PPS) Sampling. Wiley StatsRef: Statistics Reference Online. 2016:1–5. https://doi.org/10.1002/9781118445112.stat03346.pub2

46. Matiwane BP, Blaauw D, Rispel LC. Examining the extent, forms and factors influencing multiple job holding among medical doctors, professional nurses and rehabilitation therapists in two South African provinces: a cross-sectional study. BMJ Open. 2023;13(12):e078902. https://doi.org/10.1136/bmjopen-2023-078902 PMID: 38128938

47. Lancsar E, Louviere J. Conducting discrete choice experiments to inform healthcare decision making: a user's guide. Pharmacoeconomics. 2008;26(8):661–77. https://doi.org/10.2165/00019053-200826080-00004 PMID: 18620460

48. Bridges JFP, Hauber AB, Marshall D, Lloyd A, Prosser LA, Regier DA, et al. Conjoint analysis applications in health--a checklist: a report of the ISPOR Good Research Practices for Conjoint Analysis Task Force. Value Health. 2011;14(4):403–13. https://doi.org/10.1016/j.jval.2010.11.013 PMID: 21669364

49. Mandeville KL, Lagarde M, Hanson K. The use of discrete choice experiments to inform health workforce policy: a systematic review. BMC Health Serv Res. 2014;14:367. https://doi.org/10.1186/1472-6963-14-367 PMID: 25179422

50. de Bekker-Grob EW, Ryan M, Gerard K. Discrete choice experiments in health economics: a review of the literature. Health Econ. 2012;21(2):145–72. https://doi.org/10.1002/hec.1697 PMID: 22223558

51. Ryan M, Kolstad J, Rockers P, Dolea C. How to conduct a discrete choice experiment for health workforce recruitment and retention in remote and rural areas: a user guide with case studies. World

Health Organization & CapacityPlus: World Bank. 2012. Available from: https://www.capacityplus.org/files/resources/discrete-choice-experiment-user-guide.pdf

52. Harris PA, Taylor R, Thielke R, Payne J, Gonzalez N, Conde JG. Research electronic data capture (REDCap)--a metadata-driven methodology and workflow process for providing translational research informatics support. J Biomed Inform. 2009;42(2):377–81. https://doi.org/10.1016/j.jbi.2008.08.010 PMID: 18929686
53. Hole AR, editor Mixed logit modeling in Stata--an overview. United Kingdom Stata Users' Group Meetings 2013; 2013.: Stata Users Group. Available from: https://ideas.repec.org/p/boc/usug13/23.html
54. Gu Y, Hole AR, Knox S. Fitting the Generalized Multinomial Logit Model in Stata. The Stata Journal: Promoting communications on statistics and Stata. 2013;13(2):382–97. https://doi.org/10.1177/1536867x1301300213
55. Fiebig DG, Keane MP, Louviere J, Wasi N. The Generalized Multinomial Logit Model: Accounting for Scale and Coefficient Heterogeneity. Marketing Science. 2010;29(3):393–421. https://doi.org/10.1287/mksc.1090.0508
56. Quaife M, Terris-Prestholt F, Di Tanna GL, Vickerman P. How well do discrete choice experiments predict health choices? A systematic review and meta-analysis of external validity. Eur J Health Econ. 2018;19(8):1053–66. https://doi.org/10.1007/s10198-018-0954-6 PMID: 29380229
57. Jan S, Bian Y, Jumpa M, Meng Q, Nyazema N, Prakongsai P, et al. Dual job holding by public sector health professionals in highly resource-constrained settings: problem or solution?. Bull World Health Organ. 2005;83(10):771–6. PMID: 16283054
58. Bateman C. RWOPS abuse - government's had enough. S Afr Med J. 2012;102(12):899–901. https://doi.org/10.7196/samj.6481 PMID: 23498029
59. Bateman C. RWOPS clampdown - a crisis in the offing. S Afr Med J. 2013;103(6):361–4. https://doi.org/10.7196/samj.7029 PMID: 23725951
60. Gruen R, Anwar R, Begum T, Killingsworth JR, Normand C. Dual job holding practitioners in Bangladesh: an exploration. Soc Sci Med. 2002;54(2):267–79. https://doi.org/10.1016/s0277-9536(01)00026-0 PMID: 11824931
61. Do N, Do YK. Dual practice of public hospital physicians in Vietnam. Health Policy Plan. 2018;33(8):898–905. https://doi.org/10.1093/heapol/czy075 PMID: 30289510
62. Fisher T. Impact of occupational specific dispensation on the vacancy rate and profile of doctors working at the Dr George Mukhari Hospital. Johannesburg: University of the Witwatersrand; 2013. Available from: https://core.ac.uk/download/pdf/39671078.pdf.
63. Ditlopo P, Blaauw D, Rispel LC, Thomas S, Bidwell P. Policy implementation and financial incentives for nurses in South Africa: a case study on the occupation-specific dispensation. Glob Health Action. 2013;6:19289. https://doi.org/10.3402/gha.v6i0.19289 PMID: 23364085
64. Treasury to propose three-year wage freeze [Internet]. The Republic of South Africa: Government Communications (GCIS); 2020.; Available: https://www.sanews.gov.za/south-africa/treasury-propose-three-year-wage-freeze#:~:text=In%20an%20effort%20to%20stabilise,delivered%20in%20Parliament%20on%20Wednesday.
65. Bateman C. RWOPS- light at the end of a dusty tunnel?. S Afr Med J. 2013;103(12):888. https://doi.org/10.7196/samj.7693 PMID: 24490211
66. Malakoane B, Heunis JC, Chikobvu P, Kigozi NG, Kruger WH. Public health system challenges in the Free State, South Africa: a situation appraisal to inform health system strengthening. BMC Health Serv Res. 2020;20(1):58. https://doi.org/10.1186/s12913-019-4862-y PMID: 31973740

CHAPTER 7: THE AMBIGUITY OF REGULATING MULTIPLE JOB HOLDING IN SOUTH AFRICA

Busisiwe P. Matiwane[1]*, (https://orcid.org/0000-0002-4328-2285), Duane Blaauw[2] (https://orcid.org/0000-0002-0605-7134) and Laetitia C. Rispel[1] (https://orcid.org/0000-0001-7806-6331).

[1] Centre for Health Policy & South African Research Chairs Initiative (SARChI), School of Public Health, University of the Witwatersrand, Johannesburg, South Africa.
[2] Centre for Health Policy, School of Public Health, University of the Witwatersrand, Johannesburg, South Africa
*Correspondence to Busisiwe P. Matiwane, Busisiwe.matiwane@wits.ac.za

Funding

This research was supported by the South African Research Chair Initiative (SARChI) of the National Research Foundation (NRF) of South Africa (#102219), under the leadership of LR. The opinions presented in this study are solely those of the authors and do not reflect the views of the funding bodies.

Acknowledgements

We thank the key informants and health professionals for their time and participation.

Ethical approval

The Human Research Ethics Committee (Medical) of the University of the Witwatersrand approved this study [M210262]. All participants provided written consent.

Conflict of interest statement

The authors have no conflicts of interest to disclose.

Abstract

Multiple job holding (MJH) or dual practice is common among public sector health professionals in countries with mixed health systems. MJH regulations, which range from legal permission to outright prohibition, are designed to balance the potential benefits and challenges of MJH. Several context-specific factors influence compliance with such regulations. In South Africa, MJH is governed by the Remunerative Work Outside of the Public Sector (RWOPS) policy, though its implementation and compliance remain contentious. This study applied Sutinen and Kuperan's socio-economic theory of regulatory compliance to explore the implementation and compliance with the RWOPs policy among public sector health professionals. We conducted key informant interviews with 33 stakeholders across South Africa and in-depth interviews with 30 medical doctors, professional nurses and rehabilitation therapists from Gauteng and Mpumalanga public hospitals. Thematic analysis was used to code the data. The RWOPS policy, intended as a retention strategy in the public health sector, suffered from ambiguity, procedural inefficiencies, and inconsistent enforcement, undermining its perceived legitimacy and effectiveness. Delays in approval, confusion about what constitutes RWOPS, doubts about policy legitimacy, the unruly behaviour of certain senior medical specialists, and oversight and management failures contributed to widespread reported non-compliance, such as engaging in MJH during working hours or neglecting hospital duties. In some hospitals, stricter and visible management practices enhanced compliance and served as a deterrent to unauthorised MJH, but the RWOPS policy's administrative shortcomings reduced its overall effectiveness. The findings highlight the need for clarity on RWOPS policy provisions, improved procedural efficiency, and consistent enforcement to enhance compliance with MJH regulations.

Keywords

Dual practice, multiple job holding, health workforce, regulation, RWOPS, South Africa

7.1. Introduction

Multiple job holding (MJH) or dual practice is common among health professionals in the public sectors of low- and middle-income countries (LMICs) [24, 91]. Regulation is one of the main strategies that aim to balance the potential individual and system benefits and disadvantages of MJH [39, 154]. MJH regulatory approaches range from explicit legal permission to outright bans [12], but these are complex and context-specific [39, 154]. The varied impact is determined by the differing compliance of health professionals with MJH regulations [39]. This is because compliance with laws and regulations is multifaceted, influenced by the content of the regulations, perceptions of risks, enforcement, government legitimacy, social norms, institutional support, and communication [116, 159-161].

A 2007 cross-national policy and regulatory review of health sector responses found that the implementation of MJH regulations was marred by a combination of factors, including powerful and vested interests of health professionals, especially doctors, reluctance by managers to enforce regulations, difficulties of altering working conditions in the public sector, and the extra costs associated with monitoring MJH restrictions [12]. A 2024 systematic review on employee moonlighting, while not primarily focused on the health sector, identified various knowledge gaps, including MJH policies and regulations and emphasised the need for in-depth qualitative research to enhance the explanation and interpretation of MJH [162].

South Africa, with its mixed public-private healthcare system, has a high prevalence of MJH among medical doctors, professional nurses, and rehabilitation therapists [157]. The Public Service Act makes explicit provisions for remunerative work outside the public service (RWOPS) which enables MJH for all public servants, provided that certain conditions are met [163]. The evolution of the RWOPS policy has been complex, influencing its compliance and implementation, with key changes made by the Department of Public Service and Administration (DPSA), which is the custodian of public sector policies in South Africa(**Table 10**).

Table 10: Evolution of RWOPS Policy in South Africa: 1994 to 2024

1994-1999	– **1994**: The Public Service Act was amended and signed by the newly elected democratic president, with Section 30 making provisions for RWOPS for public servants, including health professionals. – **1997:** Section 30 was amended to prescribe a 30-day response time by the Executive Authority following an individual's application for RWOPS approval – **1999**: The Public Service Regulations (PSR) introduced a Code of Conduct, which requires public servants to obtain approval for any remunerative work outside their official duties (RWOPS). This regulation aimed to ensure that outside work did not conflict with official responsibilities.
2000-2009	– **2004**: A Public Service Commission investigation in two Gauteng hospitals found that nurses and doctors were engaging in MJH without permission.
2010-2019	– **2016**: The 2016 PSR mandates employees to prioritise the public interest, prevent conflicts of interest, and not undertake business with the state. Employees must obtain consent before performing outside employment, cannot utilise public resources for it, and must declare any such activity. The Minister establishes the procedure for requesting approval, and employees must declare any outside employment. – **2016**: The Directive on Other Remunerative Work Outside the Employee's Employment, issued under Section 30 of the Public Service Act, 1994, outlines the scope, statutory framework, application process, roles of the supervisor, ethics officer, HR, and the applicant, procedures for addressing non-compliance, implementation date, and monitoring and reporting of RWOPS activities. – **2018**: The Directive on financial interest disclosure was issued, requiring senior management and departmental heads to disclose their financial interests annually. This was introduced to prevent conflicts of interest and ensure transparency, specifically to avoid business dealings with organs of state.
2020-2024	– **2020**: Guide on managing RWOPS in the public service outlining legal requirements, application procedures, and employee responsibilities – **2021**: The Directive on financial disclosure was expanded to include employees on salary level 9, which includes heads of departments (HODs). The directive also introduced procedures for using the eDisclosure system to submit financial interest disclosures and apply for RWOPS. – **2024**: The 2024 Directive on Other Remunerative Work Outside the Employee's Employment builds on the 2016 directive, outlining implementation procedures, introducing an electronic application system, and allowing temporary approval certificates if no response is received within 30 days of submission to the Executive Authority.

Sources: [65, 67, 149, 163-167]

In 1994 a key milestone was the amendment of the Public Service Act, with explicit provisions for RWOPS in Section 30 [163] **(Table 10)**. In the three decades since, the DPSA has revised the directives or policy guidelines to encourage regulatory compliance [65, 67, 164-166]. The updated RWOPS directives have clarified the legal requirements, application procedures, and responsibilities of public service employees while stressing ethical conduct and accountability [149]. The DPSA directives also provide for more effective monitoring and enforcement systems [67]. Importantly, the RWOPS

directives aim to ensure that employees prioritise their core responsibilities, comply with the Code of Conduct, prevent potential conflicts of interest or disruptions to their duties, and close loopholes in the alleged abuse of government resources [67, 149].

Notwithstanding the increasingly detailed RWOPS directives, the implementation of the policy and compliance with regulations has been mired in controversy. A 2004 Public Service Commission (PSC) investigation in Gauteng found medical doctors, nurses, and allied health professionals (such as rehabilitation therapists) engaging in RWOPS without approval, with some doctors using government resources for their private practices [168]. Anecdotal evidence suggests non-compliance with the RWOPS policy by medical doctors who were working in their private practices during scheduled public health sector working hours and neglecting their public sector responsibilities [169]. The non-compliance was exacerbated by poor management of implementation and insufficient or absent monitoring [69, 111, 112, 170]. A 2015 qualitative study which explored MJH and retention of medical specialists in Cape Town noted ongoing non-compliance with some specialists engaging in MJH without official permission [94]. In 2019, the Presidential Health Compact which brought together numerous stakeholders in the public and private sectors in South Africa, highlighted poor implementation of the RWOPS policy and recommended the need for policy revision and mechanisms to ensure regulatory compliance [70]. Similarly, a 2020 study in the Free State province documented abuse of RWOPS and improper use of public sector equipment, non-compliance with the RWOPS policy restrictions on working hours, and poor monitoring of public sector health professionals. This non-compliance adversely affected health service delivery [115].

However, empirical evidence on RWOPS policy implementation and compliance in public health sector hospitals remains limited. In this study, we have applied Sutinen and Kuperan's socio-economic theory of regulatory compliance [116] to explore the perspectives of stakeholders on the implementation of the RWOPS policy as a regulatory mechanism for MJH in South Africa. The study is important as stakeholders play a critical role in policy implementation success or failure and its intended outcomes, and their opinions shape compliance. Furthermore, an in-depth qualitative study on stakeholder perspectives has the potential to shape possible revisions to improve the enforcement of the RWOPS policy. This study is part of a larger doctoral study that examines the extent, forms and factors that influence MJH and its regulation among public sector medical doctors, professional nurses and rehabilitation therapists in the Gauteng and Mpumalanga provinces of South Africa.

7.2. Methods

7.2.1. Conceptual framework

Sutinen and Kuperan's [116] socio-economic theory combines the deterrence model of regulatory compliance, with theories from psychology and sociology to explain the motivations that influence an individual's decisions to comply with a law or set of regulations. We used this framework to explore the implementation and compliance with the RWOPS policy in South Africa (**Figure 6**).

Health professionals decide whether or not they will comply with the current RWOPS regulations. Non-compliance can take several forms. Firstly, health professionals may work in a second job without applying for RWOPS permission. Secondly, they may have applied for RWOPS, but it was refused or has not yet been approved, but they continue with MJH regardless. Lastly, they may have obtained RWOPS approval but fail to comply with the specified conditions, such as engaging in MJH after hours, exceeding the permissible weekly hours, or working in jobs different from those approved.

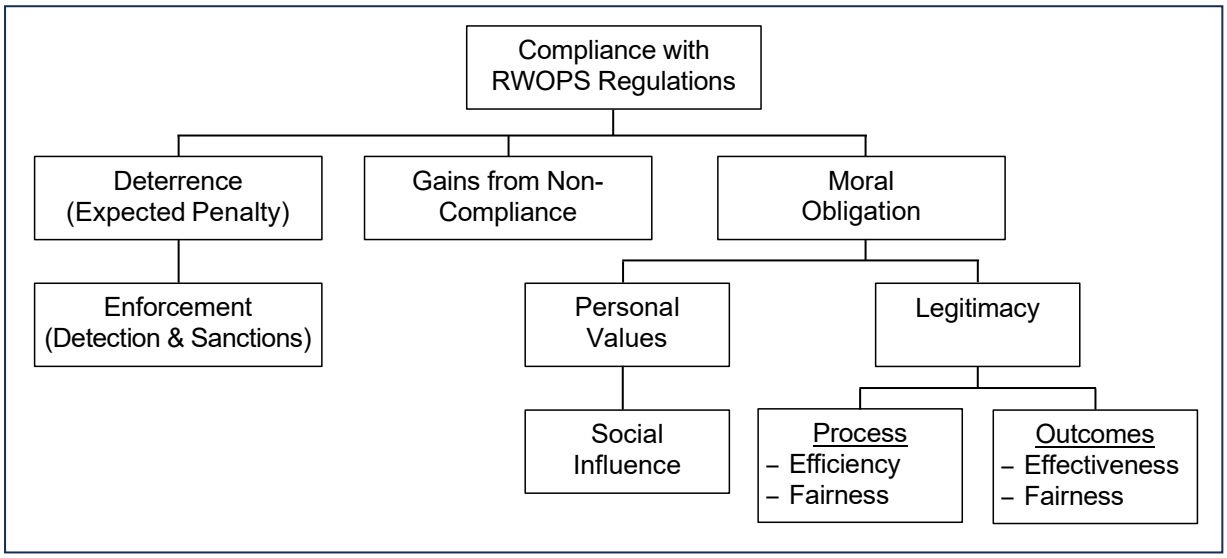


Figure 6: Socio-economic theory of compliance applied to RWOPS

Source: From Sutinen and Kuperan [116] page 183

The neo-classical deterrence model explains compliance as a basic economic calculus about the relative benefits and costs. The personal gains from non-compliance are certainly higher than those from complying with the RWOPS restrictions – for example, more hours can be worked in the second job, more patients are available during office hours than after hours, and practice overhead costs are more cost-effective when working longer hours than permitted. The deterrence part of this calculation relates to the certainty and severity of sanctions if health professionals are found to be non-compliant. Sanctions for not complying with RWOPS rules may include losing RWOPS approval [65, 67], disciplinary action, repayment of money or benefits received, [65, 67] and dismissal. Economic theory

would require that the expected non-compliance penalty should balance the additional gains from non-compliance versus compliance, although the cost of enforcement is also an important consideration.

However, the central insight of the Sutinen and Kuperan model is that there is also a moral dimension to decision-making about regulatory compliance [116]. A moral obligation to comply with policy stipulations is derived from personal values about doing what is perceived to be the right thing. In this case, that might include following the formal prescripts for public sector employees, fulfilling the obligations of their primary jobs that they have been paid for, and not neglecting public patients who depend on their care. However, moral behaviour is not only about individual moral development but is strongly influenced by broader social and environmental norms and practices. Moral considerations should be important for health professionals who are held to higher professional and ethical standards of behaviour, reinforced through societal expectations, professional socialisation, peer scrutiny and the oversight of professional bodies.

The final element of the model emphasises that individuals comply with authorities and rules that they perceive to be legitimate. Four regulatory characteristics enhance legitimacy **(Figure 6**). *Procedural efficiency* is about regulatory authorities responding promptly, while *procedural justice* has to do with treating people fairly and equally. Legitimacy is also promoted by o*utcome effectiveness* when the regulations achieve demonstrably valuable policy objectives and *outcome fairness* when the benefits of the regulations and compliance are shared fairly among those involved. For RWOPS, the key procedural concerns may relate to processes for the approval, monitoring and enforcement of the regulations. In terms of outcomes, the main purpose of allowing RWOPS is to retain critical health professionals, particularly senior staff, in the public sector, which would be of benefit to all public sector staff and patients. However, if that is not achieved, health professionals may well question the value of the policy and complying with it.

7.2.2. Study setting and design

Gauteng is South Africa's main economic area and is mostly urban, while Mpumalanga is mostly rural [123, 152]. This was a qualitative study, that used 30 key informant interviews (KIIs) and 33 in-depth interviews (IDIs) with public sector medical doctors, professional nurses, and rehabilitation therapists from GP and MP. The details are explained below.

7.2.3. Key informant interviews

The key informant interviews (KIIs) aimed to examine the perceptions of stakeholders on the implementation of the RWOPS policy as a regulatory tool for MJH in Gauteng and Mpumalanga. We created a list of key informants nationwide, encompassing individuals from the following categories: national and provincial government representatives; hospital administrators; health professions council

members; professional associations delegates; civil society representatives; and researchers in the health workforce domain. A purposive selection of 30 key informants (KIs) was made from this list to ensure a wide range of perspectives on MJH. Furthermore, we employed a snowballing technique by asking KIs to recommend additional potential interviewees, resulting in the identification of three more KIs. We developed a semi-structured interview schedule based on the conceptual framework. The questions focused inter alia on the KI's knowledge or experience of MJH among health professionals, their perceptions on the RWOPS policy as a regulatory tool for MJH, clarity of the RWOPS legislation, its implementation or enforcement, whether there has been any review of the RWOPS policy in the province (or hospital), the evaluation and monitoring of the policy, and possible strategies to strengthen or improve RWOPS as a regulatory mechanism. The interview schedule was piloted with four participants similar to the KIs to assess question relevance, clarity, and duration. Adjustments were made based on feedback, and pilot data were excluded from the analysis.

7.2.4. In-depth interviews

The in-depth interviews (IDIs) aimed to examine MJH among medical doctors, professional nurses and rehabilitation therapists, and to obtain their perceptions on the RWOPS policy and its implementation in public hospitals. We conducted purposive sampling in the study provinces to recruit the study participants, who had prior or current involvement in MJH. Among rehabilitation therapists, we selected two from each subgroup: physiotherapists, occupational therapists, speech therapists and/or audiologists. Additionally, we implemented a snowballing strategy where interviewed health professionals recommended other potential participants. This approach added 14 more participants, bringing the total in-depth interviews to 30.

The semi-structured interview schedule was developed based on the conceptual framework. The questions covered the types of MJH, reasons for participation, RWOPS policy and its implementation in public hospitals. A pilot study was conducted with six health professionals, each representing a different professional group, to ensure the clarity, relevance, and duration of the interview guide. Following the pilot phase, additional probes on the types, reasons and RWOPs policy questions were incorporated into the main study interviews by BM, informed by insights gained from the pilot interviews. No further adjustments were deemed necessary, and data from the pilot interviews were excluded from the final analysis.

7.2.5. Data collection tool

Study participants were contacted via email and phone and asked to participate voluntarily in the research. Once written informed consent was obtained, the principal researcher (BM) conducted all interviews using the relevant semi-structured schedules in English. Due to COVID-19 restrictions, most interviews, excluding one, were conducted online using platforms like Zoom, Microsoft Teams, or

telephone, spanning from August 2021 to October 2021. Following each interview, BM compiled detailed field notes. The duration of interviews averaged around 40 minutes, varying based on participants' responses. All interviews were voice-recorded with consent and assigned a code to ensure confidentiality.

7.2.6. Data analysis

The interview data were transcribed verbatim and cross-checked with the original recordings for accuracy. The research team applied thematic analysis [127] with the support of MAXQDA 2022. The three authors independently read and coded three different KII transcripts and three different IDI transcripts. An initial meeting was held to review the codes, potential sub-themes, and themes. After reaching a consensus on the initial codes and themes, BM proceeded to analyse the remaining data, using both manual coding and MAXQDA 2022, and prepared a memo for further discussion. Meanwhile, LR mapped the results from an additional six interviews. The three authors reconvened for a second analytical workshop to review the findings, identify patterns, and discuss the MJH narratives. Subsequently, five meetings were held by the authors to discuss the study findings and interpret the participant responses on RWOPS regulation in light of the conceptual framework on regulatory compliance and the South African context.

7.2.7. Trustworthiness and rigour

This study used Lincoln and Guba's criteria for ensuring rigour [128]. Credibility and trustworthiness were established through data immersion, independent, inductive coding of transcripts, and inter-coder agreement. The use of semi-structured interview schedules and one interviewer enhanced the consistency of questions, while minimising bias. The workshop discussions by the co-authors, reflections on and comparisons with the conceptual framework, and validation of themes during data analysis ensured the dependability of the study findings. The use of actual quotes from participants to generate themes ensured confirmability.

7.2.8. Ethical considerations

Ethical approval was granted by the Human Research Ethics Committee (Medical) of the University of the Witwatersrand [M210262]. All participants gave informed consent. Before each interview, BM provided a detailed information sheet to each participant and outlined the study objectives, emphasising voluntary participation, confidentiality, and anonymity. BM confirmed consent for the interview and its recording. Given the sensitive nature of MJH and compliance with the RWOPS policy, BM adopted a non-judgmental, and professional approach to the interviews. The electronic format of the interviews necessitated by the COVID-19 pandemic allowed for physical distance and facilitated open discussions.

7.3. Results

7.3.1. Socio-economic characteristics of study participants

We conducted interviews with 33 key informants and 30 health professionals. Their basic characteristics are presented in **Table 11**.

Table 11: Characteristics of study participants

Sector/ profession	Total	Gender		Province		
		Male	Female	Gauteng	Mpumalanga	Western Cape
Key informants=33						
Civil society (trade union)	2	2			2	
Statutory body	2	1	1	2		
Academia & research	3	2	1	2		1
Hospital management	10	5	5	6	4	
Human resource	2		2	1	1	
Professional association	4	2	2	3	1	
Provincial government	3	3		1	2	
National government	3	3		3		
Private hospital group	2		2			
Nursing agency	2	2		1		1
Total	**33**	**20**	**13**	**21**	**10**	**2**
Health Professionals =30						
Medical doctor	8	4	4	4	4	
Professional nurse	10	3	7	5	5	
Rehabilitation therapist	12	5	7	6	6	
Total	**30**	**12**	**18**	**15**	**15**	

7.3.2. Emerging themes

Five inter-related themes emerged from the key informant and health professional interviews: (1) the ambiguity about the RWOPS policy; (2) the dissonance in RWOPS governance and management; (3) informal or dubious MJH arrangements by health professionals to hide or obscure non-compliance (4) the dilemma of managing health professionals; and (5) that ethical practices enable compliance.

Table 12 shows the themes and sub-themes, and their alignment to the selected conceptual framework. Although the themes overlap, each is described separately for the sake of clarity. Within each theme, we present the findings from the key informants and in-depth interviews with health professionals in an integrated manner.

Table 12: Emerging themes and sub-themes

Theme	Sub-themes	Link to conceptual framework
1. Ambiguity about the RWOPS policy	▪ Perceived value of RWOPS policy – retention of skilled professionals ▪ RWOPS is a complex trade-off between advantages and disadvantages. ▪ Proverbial bread buttered on both sides – full-time employment perks alongside private work. ▪ Cumbersome or unclear policy ▪ Perceptions of unfairness – approval delays, restrictions on private practice hours. ▪ Intrusive requirements – financial disclosure	▪ Deterrence -gains ▪ Moral obligation and social influence ▪ Legitimacy ▪ Process ▪ Outcomes
2. Dissonance in RWOPS governance and management	▪ Manual, laborious, and confusing application processes ▪ Limited HR officer knowledge of the policy ▪ Perceived conflicts of interest in approvals ▪ Delayed or lengthy approval processes ▪ Management failure to implement progressive discipline ▪ Disjuncture and differences in implementation across departments, provinces ▪ Disconnect between RWOPS goals vs implementation	▪ Enforcement-detection and sanctions
3. Informal or dubious MJH arrangements to hide or obscure non-compliance	▪ Informal arrangements to cover supervision or teaching duties ▪ Leaving junior doctors unsupervised causes frustration among team members ▪ Completion of public sector work as justification for leaving early ▪ Lack of adherence to working hours ▪ Taking shortcuts resulting in compromised public sector patient care ▪ Unauthorised use of government resources	▪ Illegal gains
4. Dilemma of managing health professionals	▪ Flexibility of medical work ▪ Power imbalances in management of doctors ▪ Clinical heads also participate in RWOPS ▪ Differences in managing doctors, nurses and rehabilitation therapists ▪ Vested or conflicts of interest ▪ Lack of effective management or supervision	▪ Moral obligation and social influence ▪ Enforcement-detection and sanctions
5. Ethical practices and strict management ensure compliance	▪ Commitment to ethical practices and prioritising public sector patient care ▪ Moral obligation to uphold public sector responsibilities ▪ Health professionals with integrity adhere to established rules and standards ▪ Effective management facilitates compliance	▪ Moral obligation and social influence

Theme 1: Ambiguity about the RWOPS policy

This theme captures the diverse, ambiguous and at times contradictory perspectives expressed by the key informants and health professionals on the RWOPS policy.

Many key informants highlighted the original goal of RWOPS as a health workforce retention strategy, especially focused on medical specialists. A senior government official explained that:

> *When it* [RWOPS] *was introduced, it was meant to retain professionals in the public sector. During that time* (1990s), *quite a number of professionals were pulled to the private sector mainly for revenue. And the revenue was mainly driven by the fact that most professionals, they've just completed, they've established their families, and they needed to meet the needs of their families. And then, of course, in our* [black] *culture, the family is also extended family* [KI 25, executive provincial government manager].

Some key informants indicated that it makes a '*lot of sense'* to keep the health professionals in the public sector and allow these professionals in a regulated or controlled manner to work in the private sector. Similarly, the health professionals interviewed expressed appreciation for the RWOPS policy in ensuring accountability, preventing compromised public service delivery, and providing opportunities for additional income, thus helping to retain professionals in the public sector. They were also of the opinion that RWOPS makes provision for transparent private work.

> *I think it is good because it keeps people accountable for their jobs. I know* [and] *you know there's a reputation that in government people can just get away with murder, so I'm glad that there is some sort of accountability that's needed for not taking advantage of the system. I think the process can always be streamlined. I mean, it takes long to get permission and everything, but I think it works well"* (IDI 6 speech therapist).

However, the interviews revealed the ambiguity about the RWOPS policy, the contradictory perspectives of study participants, and the complex trade-offs between policy advantages and disadvantages. At one extreme, an executive manager in the national Department of Health was of the opinion that RWOPS should be banned, because it resulted in '*absolute theft'* of public resources. Hospital managers thought that the potential advantage of attracting and retaining health professionals with scarce skills in under-served or rural settings is offset by the disadvantage of their non-compliance.

> *We are always begging practitioners to come* [to public hospitals]. *If we lose qualified staff to private, then unfortunately our patients are going to suffer, you know. So, somehow, we are on the back foot. So, we're turning a blind eye* [to non-compliance] *purely on the basis that we do not want to ruffle any feathers. We do not want to ruffle those people* [health professionals] *who are supposed to adhere to this particular* [RWOPS] *policy* (KI 7, hospital manager, GP).

These hospital managers also found the policy cumbersome due to monitoring and enforcement requirements, with some suggesting it might be more effective if RWOPS were abolished. They indicated that health professionals would then need to decide whether they work for the public or private health sector exclusively.

An executive manager in the private health sector questioned the wisdom of the RWOPS policy. Although intended as a retention strategy, the key informant was of the opinion that the policy allows health professionals to have their proverbial '*bread buttered on both sides'.* The key informant pointed

out that these health professionals are in full-time employment, with generous and long-term benefits, yet they used government time to engage in MJH and compromise patient care in the public sector.

Both key informants and health professionals highlighted that there was insufficient information or lack of clarity on certain aspects of the RWOPS policy, such as the types of work that qualify as RWOPS. A trade unionist highlighted this confusion:

> *It's quite tricky with regards to the RWOPS. According to my understanding, it [RWOPS] covers everything that you do not only pertaining to your profession. So, like if you have a side business, any earning that you are getting from outside the public sector, in a way, you must get permission. RWOPS is any remuneration outside public service. So, what happens is everyone has a side hustle. Some people sell Avon* [beauty products] *within the perimeter of the hospital. It's an extra earning but it's not regarded as an offence even if it's done outside the RWOPS guidelines without a person getting permission* (KI 2, trade unionist).

Paradoxically, some health professionals viewed the RWOPS policy as unfair, citing approval delays and the limits placed on hours worked in the private sector as constraining their ability to earn even more money.

> *I have RWOPS* [approval], *I have the certificate, but so I feel like it expects you to spend less time in private and more time in the public sector, yet the remuneration is not the same and in the public sector you get way less that what you're going to get in two hours in private* (IDI 26, medical specialist)

Some health professionals objected to the financial disclosure requirements, viewing them as irrelevant and intrusive, which undermines the policy's legitimacy. They felt the policy was overstepping its intended goals. One medical specialist explained that owning a business, such as a shop managed by employees, did not interfere with their public sector duties. However, declaring such business ownership could create the false impression of being overcommitted. Another medical practitioner remarked:

> *They want to see how much you make and monitor your funds and stuff, even though SARS is there for that. They are overextending themselves… No, it's not their jurisdiction.* (IDI 23, medical practitioner)

<u>Theme 2: Dissonance in RWOPS governance and management</u>

This theme highlights the misalignment between RWOPS governance and management, where ineffective governance, management weaknesses, and porous systems contribute to non-compliance.

The interviews revealed that the DPSA issues directives, which are adopted by provinces and distributed to hospitals. Each hospital then develops its own guidelines, leading to variations in the approval

process. For instance, in Gauteng, applications are approved locally, while in Mpumalanga, they are approved provincially, as shown in **Table 13**.

Table 13: Provincial differences in RWOPS implementation and approval procedures

Procedure	Gauteng	Mpumalanga
Provincial adoption of the RWOPS policy	The Head of Department (HOD) adopted the 2020 DPSA RWOPS guidelines	The HOD adopted the 2016 DPSA RWOPS directives
Hospital adoption of the RWOPS policy	Use the 2020 provincial guide to create terms of reference that specify the RWOPS committee's roles, responsibilities, and operational guidelines.	Use the RWOPS policy issued by the provincial internal audit office to determine the roles and functions of the RWOPS committee
Application forms	Use the form issued by the DPSA Online and manual application process	Use the form issued by the DPSA Manual application process
Financial disclosure	Senior health professionals and HODs complete the form on the eDisclosure system	
Application process	Initiated by the applicant, it goes to the supervisor, HR, and the RWOPS ethics committee.	Initiated by the applicant, goes to the supervisor, the RWOPS ethics committee/HR, the CEO, HR and the provincial ethics officer.
Final RWOPS approval	Final approval by the hospital CEO	Final approval by the MEC
Feedback	Feedback sent to HR to capture on PERSAL Applicant receives outcome	

The KIs agreed that the RWOPS policy outlined clear requirements for both applicants and managers. However, many health professionals, particularly in Mpumalanga, found the application process poorly explained, leading to confusion about their obligations and the required documentation. For instance, a medical specialist's application was declined because he had not submitted a financial disclosure, required as acting HOD. A medical practitioner had the following to say about the application process:

> *It wasn't easy, a lot of people don't know the RWOPS policy. They don't even know what the form looks like. I had to print out the form on Google and show them. Management didn't know what it looked like, HR didn't know. It was so exhausting, none of the doctors had done this before. We didn't even know where the form goes. The form I downloaded was the old version because there is a new version of the form. After a week, they found the form, and I completed it. I asked my clinical manager to sign it. There were sections on the form I did not understand, and I didn't even know who to ask. The hospital doesn't have a committee, so the CEO eventually completed it for me and sent it to the province.* (IDI 14 medical practitioner)

This lack of clarity, coupled with insufficient knowledge of the policy by hospital managers and staff in Mpumalanga, caused frustration and delays. HR personnel's limited understanding of the application process and follow-up procedures further compounded these delays.

Interviewees highlighted that provincial differences in RWOPS application processes led to varying delays and inefficiencies. In Mpumalanga (MP), health professionals criticised the paper-based system

requiring multiple signatures, while Gauteng's online system was more efficient. However, health professionals in Gauteng district hospitals experienced similar delays to MP. Health professionals from both provinces also criticised the annual RWOPS reapplications, with delays further compounded by RWOPS committees failing to delegate tasks, particularly during members' absences.

> *They will tell you that the chairperson of the committee is not around. When the chairperson is around the secretary is not around. Then they did meet then they decided, and it went to Nelspruit [provincial office]* (IDI 7, speech and audiologist)

The interviewees noted that applicants were supposed to receive a response within 30 days of submitting their application to the ethics officers. If no response is given within this period, the application is considered automatically approved, a process known as *deemed approval*. However, many hospitals, particularly in Mpumalanga, failed to meet the 30-day deadline, with approvals often taking four to 12 months. Interviewees highlighted the lengthy process in Mpumalanga due to the centralised approval system.

A Mpumalanga health professional had this to say about the application process:

> *It was horrible, it took close to 18 months for me to get the certificate. I had to apply three times, and they* [Provincial office] *said they didn't know where the form was. They said they had lost the form; another time the gentleman who was supposed to sign the form was on leave. It was quite frustrating.* (IDI 26 medical specialist)

National government KIs indicated that delays led to deemed approvals, where applications were automatically approved after 30 days without review. This raised concerns about inadequate assessment and the potential for approving individuals whose schedules did not accommodate additional jobs.

> *So, we are avoiding those deemed approvals because it's problematic in the sense that it's not thoroughly assessed. There might be a conflict of interest because now a person will continue doing their work because it is deemed approved and then you will find that there is a conflict of interest and then now, they the department will come at a later stage to say that we are declining your application. So, we encourage departments to stick to the 30 days to avoid those*. (KI 30, national government)

Health professionals noted that an RWOPS certificate was essential for claiming payments from the Government Employees Medical Scheme (GEMS) and registering with the Board of Healthcare Funders (BHF) to establish a private practice, as these institutions required it as proof of compliance with RWOPS regulations. Delays in approval beyond the 30-day period prevented them from obtaining a practice number or claiming from medical aids, even when all application requirements were met because health professionals did not receive a proper RWOPS certificate for deemed approvals.

> *We receive quite a lot of complaints being lodged with us because doctors on the ground are experiencing difficulties with either getting the PCNS* [practice code number application] *or even getting a response to their application to do RWOPS. The policy states*

> *that if you have not had a response within 30 days you then are to assume that that application has been approved. What then happens is that they then go ahead and apply for the private practice number with the BHF. And they find themselves having difficulties because the other side would say but show us the permission that you've been given. So, I think there is some disconnect, particularly in terms of the registration, particularly with the approvals.* (KI 25, professional association)

Interviewees noted a general reluctance to enforce penalties for RWOPS policy non-compliance, with some managers fearing the loss of medical doctors, leading to limited action and few reported cases of non-adherence.

> *People are not really that keen on working in Mpumalanga, so you don't want to rub them the wrong way. Unofficially, there might be one set of rules for the doctors and one set for the other employees. But you would find that maybe if somebody had been caught out, the person was perhaps just rapped over the knuckles instead of the full might of the law being taken against the person. And then perhaps if the person stops it and closes his practice and does not continue with it, we let bygones be bygones. But if the person ignores the warning, then we will definitely take the next step.* (KI 12, hospital management)

However, study participants reported that in government *"no one was held accountable for anything"*, a health professional reported that:

> *In government, people hardly get fired. I mean after a few or more chances then you are becoming unethical*. (IDI 4, physiotherapist)

Some KIs revealed that recent policy revisions and the collaboration between the DPSA and the BHF had enhanced compliance with RWOPS regulations. These changes made it mandatory for health professionals to obtain RWOPS permission before opening private practices, whereas, in the past, many had engaged in RWOPS without formal approval. These revisions indicated a more structured approach to RWOPS policy enforcement, which had led to improved compliance. However, despite more doctors and rehabilitation therapists applying for RWOPS approval following collaboration with the BHF, most nurses in Mpumalanga were reportedly not doing so. Furthermore, some nurses indicated that they felt intimidated by nursing managers, who they perceived viewed RWOPS negatively, discouraging compliance. They feared that any mistakes, whether due to staff shortages, workload, or other factors, would be unfairly blamed on their private sector work, undermining the legitimacy of the RWOPS policy and its enforcement. One Mpumalanga nurse stated that:

They [nursing managers] *always threaten us "If somebody is working in the private hospital, they must sign this RWOPS so that we will know in case something happens…we will know because other people don't rest". That is their problem, the way they are presenting it to us because you cannot sign a thing that is a threat. So, no way, how will I sign such a thing because I know that they are putting me in a trap."* (IDI, 9 professional nurse)

This issue was further complicated by a few nursing agencies that did not require an RWOPS certificate, allowing nurses to work in the private sector without the necessary permission.

Apparent gaps in the RWOPS policy allowed health professionals to exploit loopholes. RWOPS policy revisions did not restrict activities like locum work or non-patient care roles, such as private businesses, allowing these practices to continue unchecked. Unlike private practices, individuals who locum do not need a practice number, enabling them to work without explicit permission. Private businesses go unnoticed unless the health professional is required to disclose finances, in which case a registered business in their name may be identified. Additionally, health professionals in internships, community service, and specialist training were reportedly engaging in RWOPS despite legal restrictions.

> *I know they say interns are not supposed to do locums, but I started* [MJH] *during the second year of internship.* (IDI 14, medical officer)

> *When I was doing my community service, I was also doing locums...Although I was not allowed to do them.* (IDI 24, occupational therapist)

KIs and health professionals also noted that applicants could obtain permission for one job but take on a range of different jobs without explicit approval for each, particularly when working for others or engaging in informal businesses. This led to instances where professionals bypassed the RWOPS process despite engaging in activities that technically required it.

> *... if I'm working for the government, I have a private practice and I also do locum, I would have been approved to do that other job* [private practice]. *So, nobody cares, it's up to you.* (KI 29, statutory body)

A few KIs highlighted a paradoxical effect of the RWOPS policy on retaining health professionals within the public sector, supporting workforce retention by providing additional income and enhancing job satisfaction, but sometimes inadvertently driving health professionals toward full-time private practice. For example, one KI noted that RWOPS allowed the public sector to retain highly skilled professionals, ensuring continued service delivery to underserved populations:

> *The advantage is that in a number of instances the state has been able to keep highly skilled people to provide service to the indigent as opposed to most of them going to the northern suburbs.* (KI 26 professional association)

Additionally, several health professionals admitted that RWOPS had influenced their decision to remain in public service. For instance, one occupational therapist credited RWOPS for making public sector work financially viable:

> *I can work for the government just because I have an RWOPS certificate, now I can manage my business because I'm working for the government, so it's just a way, if it wasn't there, I think I would have left public a long time ago*. (IDI 24 occupational therapist)

The policy's perceived inflexibility, such as fixed working hours and restrictions on attending private sector duties during the day, created frustrations that some viewed as pushing health professionals towards the private sector. A medical practitioner voiced their dissatisfaction with the rigid structure, explaining their decision to transition to sessional work, a form of MJH, where the primary job is in the private sector and the additional job is in the public sector, to gain flexibility and focus on private practice:

> *I feel like I should leave the one in the public because that is fixed you know. It is not that flexible, you cannot control the hours…I'm actually in that process that soon I'll be leaving, and I will be working for the government as a sessional, that's my next target. So that I can be more in private and just locum for the government as a sessional.* (IDI 23 medical practitioner)

Some health professionals felt that the RWOPS policy did not account for the unpredictable nature of patient care, which posed challenges for some health professionals. A medical specialist was of the opinion that by allowing specialists to open private practices but restricting them to specific hours, the policy failed to consider that medical needs are not confined to neat timeframes, unlike other businesses. This policy restriction created frustrations for health professionals, who felt that these conflicted with the realities of their work. As a result, some specialists were inadvertently incentivised to leave the public sector entirely, preferring the flexibility of private practice over the constraints imposed by the RWOPS policy.

> *Yes, because they're not practical, for example, if someone has a private practice and you say they must go see their private patients at 4 pm, what has been happening from 8 am until 4 pm? They* [specialists] *are going and looking after those patients, so in a way, they are pushing specialists to go to private. But at the end of the day, then those specialists will feel like you know what there is no need for me to be in public I might as well just do private full-time. I feel like that's what the RWOPS are doing, they are pushing more specialists to go to private and leave the government sector.* (IDI 26 medical specialist)

Theme 3: Informal or dubious MJH arrangements to hide or obscure non-compliance

This theme captures how health professionals twist the RWOPS rules to hide partial or complete non-compliance.

Non-compliance with RWOPS regulations appeared widespread among medical specialists, particularly regarding restrictions on RWOPS hours. Many relied on informal systems to manage schedules and support each other in balancing public and private duties. Colleagues often covered shifts or adjusted workdays to facilitate MJH during official hours, despite the prohibition on private work during scheduled government hours. Heads of departments were also reported to engage in MJH during official hours through such arrangements, further normalising non-compliance. A few health professionals noted that some medical practitioners (generalists) in district hospitals occasionally sold their government call duties to others to accommodate private sector work, illustrating how these informal

arrangements prioritised workload management and financial benefits over adherence to official working hours. These informal systems among colleagues perpetuated non-compliance, enabling health professionals to bypass RWOPS regulations.

> *To be honest it works on what you call… it's an arrangement between us as colleagues because you know on certain days when someone has to come if you know you are… let's say you have a list that is starting a bit early you would discuss it with the other colleagues to cover perhaps the junior guys on a specific day. I'd say that's how it works… because remember at any given point in time there has to be someone covering the registrars* [specialists in training]*, be it at the clinic or theatre. We have an informal arrangement among us.* (IDI 1 GP, medical specialist)

Some specialists and nurses reported that, in cases where medical specialists faced emergencies in the private sector, they would ask a colleague to cover for them in the public sector to avoid litigation risks if the private sector patient's condition became complicated. This behaviour reflects how the perceived rewards and risks in the private sector drive non-compliance in the public health sector.

Most health professionals expressed a strong sense of duty to prioritise public sector patients, ensuring that those who could not afford private care received treatment. However, once their public sector responsibilities were fulfilled, they also acknowledged leaving early for private sector work, revealing a tendency to overlook strict adherence to working hours. This practice highlights a broader pattern of non-compliance with contractual obligations.

> *Well in most cases I start with my government patients, they are my priority. Because I know they don't have much, they can't afford the most expensive or the latest drug or whatever, so I would never say I rush or I quickly go, like see them and then go see my private patients. It does not take away the authenticity of seeing them. For example, I come in very early like 07:30, I start my round I see my patients, I do everything that needs to be done, and by 11:00 I am done.* (IDI 14, medical practitioner)

The medical practitioner appears motivated by a moral obligation to care for public sector patients. However, their commitment is primarily focused on patient care with less consideration for the ethical expectation to adhere to the work hours they are paid for, highlighting a limited moral obligation to contractual responsibilities and adherence to the RWOPS policy.

Although health professionals tried to prevent their public sector duties from being impacted by private practice, negative outcomes were reportedly common. In smaller departments, informal arrangements often failed, leaving junior doctors and registrars unsupervised when specialists engaged in MJH. A medical specialist expressed frustration with the lack of support in such departments, though professional connections provided some level of assistance. Another medical specialist reported that:

> *If the Registrar* [specialist in training] *is having a complicated case. It's either he or she needs to see how he finishes the case because he got no help or if it's something simple like*

probably in our situation then there... it's either you go and look for another consultant from another station to come and assist you. If all those things fail that means you probably have to rebook the patient. For the patient to come on another day when you know for sure that the consultant will be on site. So that means the patient will have to pay money again for transport. (IDI 15, medical specialists)

Fatigue and divided attention from managing multiple jobs often compromised care for public sector patients, with some taking shortcuts or prioritising private patients. A professional nurse echoed this from their experience:

Because if you are too exhausted, you do not give your all to the patient. You can only focus, maybe, on those things that need to be done. But you forget the other aspect... You know, give time to a patient to understand why they are here and how it affects them, that is the problem that you are having... This other aspect- holistic care - you do not get there (IDI 29, nurse)

Several KIs noted a phenomenon in public hospitals where most medical doctors, especially specialists, frequently deviated from their designated working hours, often leaving work early or arriving late. In teaching hospitals, KIs reported that junior professionals often followed specialists when they left work early. In many instances, nurses and rehabilitation therapists were unable to implement certain patient care activities that required the guidance of medical doctors. This behaviour was exacerbated by inadequate managerial oversight, leading to understaffed and overloaded clinics.

Early departures or late arrivals because of MJH were also reported among rehabilitation therapists, who often used their lunch breaks to see private patients. Despite this non-compliance with government working hours, they reported prioritising patient care.

I get to work late that is the only way that I see it's compromising my job. Yes, but not the services because I've told myself that l shouldn't jeopardise the job that I have for something else also it's much better to have both. (IDI 3 MP, occupational therapist)

Some KIs reported that health professionals used public resources, such as equipment and materials, for private work, including borrowing or stealing public sector equipment.

Some will do their private work during their service sector in a public hospital. So, if someone like you'd be having a hearing aid, and you want to fix it. Someone will come into the public space, and they will fix it but it's not for a patient in the public space. It's not necessarily you are taking time but you're using public resources for free as opposed to your private things, where you are supposed to provide those resources. So, unfortunately… everyone wants to safeguard their resources and when that happens it becomes a bit unfair. (KI 9 professional association)

I think the other is the abuse of resources, where doctors will snitch [steal] *things and take them to their practices.* (KI 23, national department)

Theme 4: Dilemma of managing health professionals

This theme focuses on the challenges of managing health professionals in general and powerful doctors in particular.

The study participants emphasised that hospitals faced serious challenges in enforcing and monitoring MJH compliance among health professionals. They reported that inadequate enforcement mechanisms and a lack of monitoring by immediate supervisors enabled widespread non-compliance. Line managers frequently disregarded instances of doctors leaving early or nurses missing shifts to work in the private sector, reflecting a significant failure in deterrence and oversight mechanisms. A KI stated that:

> *It* [RWOPS] *is a good system; however, it is poorly managed by the management team. So, because the management team are not managing the applicants of this process then the applicant takes advantage and they disappear during working hours to go and perform other remunerative work outside the public service, outside the hours that they have applied for* (KI 6, human resources)

Many KIs echoed this sentiment, highlighting that strict monitoring was a significant challenge in ensuring MJH compliance. Clinical heads of medical departments, responsible for overseeing MJH adherence, often participated in MJH themselves, creating conflicts of interest that undermined enforcement. Rehabilitation therapists reported that some managers, also involved in MJH themselves, facilitated early departures for private sector duties, further weakening deterrence. Additionally, specialists were reported to recruit medical practitioners to work in their private practices, contributing to the erosion of effective monitoring and compliance with MJH regulations. A hospital manager stated:

> *…why the RWOPS* [MJH] *policy is not adhered to is the issue of supervision…It's because the person who is supposed to supervise the doctors does the RWOPS himself. So, the specialist who is supposed to manage or supervise the doctors is out there in a private practice or a private hospital.* (KI 7, hospital manager).

Some KIs and medical specialists noted that when their HODs or senior medical specialists engaged in RWOPS and left work early, it created a dilemma for subordinates. In these cases, junior staff faced challenges in reporting non-compliance, particularly when the HODs or senior medical specialists were often more qualified than their line managers. This power dynamics made it difficult for line managers to reprimand senior staff, leaving subordinates unsure of how to address the issue. Additionally, some medical specialists reported that when hospital managers were aware of non-compliance but took no action, it led to a sense of powerlessness, undermining the authority and legitimacy of the enforcement structures.

Other KIs also reported that managers did not use the systems in place, such as time registers, to monitor health professionals.

> *The RWOPS policy is clear, and it gives directions, but the challenge is the implementation by people who have the authority to implement it. Because it clearly states that if a person has applied for RWOPS and has indicated from what time to what time, as the person leaves the hospital, there should be a register or a record, where this person indicates that they are leaving from this time to this time. Then, records need to be kept. So, like I'm saying, people who are supposed to monitor are the ones who are failing the system."* (KI 16, hospital management).

The interviewees raised concerns about the enforcement and monitoring of RWOPS due to the complexities of supervising activities outside the hospital, particularly in ensuring that health professionals did not exceed the hours approved for private sector work. The complexity and variability of medical work, where doctors moved around the hospital for various tasks including academic duties sometimes outside the hospital, or had different daily schedules depending on their on-call or overtime responsibilities, made it difficult to monitor their whereabouts. In contrast, nurses, who stayed in specific wards, and rehabilitation therapists, who had more defined hours and duties, were easier to track. Additionally, the inadequate hospital security system hindered efforts to monitor when health professionals left the hospital premises, even if they could be persuaded to accept such close monitoring.

> *In terms of monitoring, if you look at the medical manager, he has so many responsibilities, and the people who have RWOPS are senior consultants. It's not the junior one. It's consultants and he cannot keep an eye on a consultant from 7:00 to 16:00, to know where he is. Once the person is done in theatre, goes to his office, or goes out of the gate, unless they improve the security system at the gates, to have where fingerprint maybe, when a person is going out and coming in."* (KI 13, hospital management)

<u>Theme 5: Ethical practices and strict management enable compliance</u>
This theme centres on the importance of ethical conduct and strict management for compliance.

Some health professionals mostly participated in MJH during weekends, with a few expressing concerns that private sector work compromised public healthcare. To address this, they avoided private sector duties during public sector hours and scheduled their private work outside of public sector responsibilities. In many cases, they applied for RWOPS to ensure compliance with the policy. These actions reflected their commitment to maintaining high standards of care in the public sector while striving to adhere to the policy.

> *I don't like compromising my public sector for my private work. So, I am very strict about that and that is the reason why I do not also take locums where you have to go in the afternoon like at 13:00 until 17:00. Cause I feel like that just messes your day, while you are still busy you want to go and rush and go to the other side. Meantime you haven't done what you are required to do. So, I am very sensitive about that.* (IDI 15, medical specialist)

A medical specialist reported avoiding fixed private sector schedules to remain available for public sector emergencies.

> *You know most of the doctors have a slate that on this day, they're operating in the private sector. I refused that, let me explain why I refused it because I feel that it just puts pressure, remember I told you that whenever they call me in the public hospital, I have to be there. So, I just refused because I thought it would put pressure.* (IDI 8 medical specialist)

A rehabilitation therapist reported actively separating their public sector responsibilities from MJH activities, ensuring that private work did not interfere with their primary job.

> *When I started the business, I realised that my main focus is my primary job and that's to be an audiologist. As a rule, just for myself, during that time of work hours, I don't entertain any side business or messages or take orders. Just so that my mind is completely focused and I either respond to messages after work or then at the weekends."* (IDI 16, speech/audiologist)

A medical specialist noted that some health professionals, motivated by a moral obligation to their public sector duties, continued to provide care even when others prioritised private sector commitments. Despite the lack of extra compensation, they stayed committed to ensuring public sector patient care was not compromised.

> *The problem with the current RWOPS document is those who with integrity, those with humanity who are honest. They suffer the consequences. Others leave work by 10:00 am. And you can't go and report but those who are like us will end up being at work until sometimes …like seven pm. Nobody will be remunerated but because of the conscious you are thinking I can't just leave this patient*. (IDI 26, medical specialists)

The KIs emphasised that MJH should not compromise health professionals' public sector responsibilities. Many health professionals reported implementing personal strategies to safeguard their well-being and ensure effective public sector performance. For instance, some scheduled dedicated rest days or adjusted their shifts for full recovery after intensive private work. They engaged in self-care activities such as extended periods of rest, walks, and other personal routines to destress and recharge. By prioritising rest, they sought to prevent fatigue from compromising the quality of care provided to public sector patients.

> *It [MJH] gets tiring so much that I've decided that on Sundays I don't work… I just stay in bed. I wake up to go make food to bath come back and sleep the whole day just to make sure I've rested and I'm ready for Monday.* (IDI 3 MP, occupational therapist)

One health professional shared that they had closed their private practice and shifted to a second job unrelated to patient care. They explained that managing a private practice had been draining, as they were constantly chasing higher patient volumes to maximise income. In contrast, their new private job allowed them to work less while earning the same amount, thereby avoiding fatigue and maintaining their public sector performance.

A KI mentioned that most managers avoided disciplining medical specialists. However, one hospital manager strictly enforced the policy, with deterrents including disciplinary actions or the option to comply or leave. The manager revealed that a biometric clocking system was in place, enabling the hospital to detect health professionals' working hours and identify those not adhering to RWOPS hour restrictions. Despite occasional staff departures due to their unwillingness to comply, the manager valued dedicated staff over non-compliant individuals, reinforcing adherence to the policy and enhancing the legitimacy of both the policy and the authorities enforcing it.

> *The solution is to monitor the deviation from the contract and implement disciplinary processes. We have had instances where we lost five specialists at once from Anaesthesiology. They just left us because we were stopping their way of doing RWOPS, they were performing RWOPS during working hours. We were still at the stage of asking them to stop it or you leave, and they chose to leave. Our take is that we rather know that we don't have them than have half. We do get those* [specialists] *who are willing to do as per the policy requirement, and those have stayed. Another, advantage that we have is that we have a biometric attendance system. So, for those that we suspect that they may not be complying, we do check on them and deal with them.* (KI 27, hospital management)

Most KIs and some clinical HODs emphasised the importance of the physical presence of managers, active oversight, and accountability to ensure that staff performed their duties, highlighting the role of deterrence in encouraging compliance.

> *People need to be monitored. Once you manage people physically and they see you, people will learn to account. When you don't do that and you do passive management, those are the consequences of* [not adhering to rules]. *Even in my station, my people know that when they are in mammography, they are expected to deliver because I am always there. They cannot cut corners because I am there 95% of the time. If I'm not there, they don't know when I'll show up. They need to do things the right way and know they'll be called if something is not as expected*. (IDI 15, medical specialist)

Staff under stricter management, such as rehabilitation therapists and nurses faced higher deterrence against non-compliance. Nurses on 12-hour shifts felt the impact of strict management, which served as a deterrent against engaging in private-sector work during public-sector hours. Rehabilitation therapists, who had previously benefited from lenient supervisors, found that strict managers enforced full workday accountability, leaving no room for early departures.

7.4. Discussion

This is one of the first studies to use Sutinen and Kuperan's socio-economic theory of regulatory compliance to explore the implementation of the RWOPS policy and its compliance among public sector health professionals. The DPSA has established RWOPS Directives and guidelines to uphold ethical standards and strengthen governance. Despite these efforts, this study revealed numerous implementation and enforcement gaps, undermining policy compliance. The study found ambiguity in

the RWOPS policy due to procedural inefficiencies and inconsistent enforcement, weakening its legitimacy and effectiveness. Oversight failures, delays, and unclear guidelines contributed to non-compliance, worsened by senior specialists setting poor examples. While strict management improved compliance in some cases, weak enforcement undermined the policy's legitimacy.

Our study found that approval delays, inconsistent implementation and intrusive financial requirements, undermined the perceived legitimacy of the RWOPS policy among health professionals. Research emphasises the obligation to comply with an authority is not solely based on its power to impose rewards or sanctions, but also on the perception that the authority is entitled to be obeyed because of its legitimacy [171]. Furthermore, individuals are more likely to comply with regulations when they perceive the authority's procedures as fair, highlighting the importance of clear and consistent policy enforcement to maintain compliance [172]. This supports our conceptual framework, which posits that health professionals comply with rules they perceive as legitimate. However, Sutinen and Kuperan suggest that when personal moral values conflict with policy objectives, education on policy goals influences beliefs and principles, promoting behaviour that aligns with social expectations [116]. Individuals who recognise an authority's legitimacy are more likely to comply, even when it conflicts with personal interests [172]. Previous studies suggest that improving implementation requires leaders to ensure open communication and consider staff views [173, 174]. Although clear guidelines, consistent implementation, education and open communication can improve health professionals' perceptions of the policy and its legitimacy, weak oversight may undermine these efforts.

Health professionals prioritising ethics were more likely to comply with the RWOPS policy, supporting the idea that personal values and professional norms influence moral behaviour. Similarly, a UK qualitative study on MJH among 60 government doctors found that they adopted informal principles to prevent misuse of the National Health Service and manage conflicts of interest. Their motivations were both ethical and practical, aiming to maintain their reputation, avoid unpaid debts, and ensure peace of mind. In that context, private healthcare was profitable, and they felt it was possible to balance private work with government duties while avoiding non-compliant behaviour [175]. Our study highlights that a hierarchical structure, where managers hesitate to confront senior colleagues, weakens accountability and enforcement. Conversely, strict management practices and visible oversight fostered legitimacy and compliance. According to previous studies, a fair approach to implementing the RWOPS policy does not require the absence of strict enforcement but emphasises fostering compliance through fairness and legitimacy. This strategy benefits health professionals, management, and the public health sector by promoting adherence while maintaining positive relationships [176]. Similarly, Sutinen and Kuperan emphasise the importance of perceived legitimacy in enforcement, suggesting that a differentiated approach, applying stricter measures to repeat offenders while offering leniency for minor violations can enhance compliance [116]. For RWOPS, prioritising fair and transparent implementation processes,

rather than mere rule enforcement, is crucial for gaining the legitimacy and support of health professionals [172]. Moreover, addressing repeat offenders appropriately is key to strengthening the legitimacy of both the policy and the authorities responsible for its enforcement.

This study highlights the difficulty of enforcing RWOPS hour restrictions, as medical specialists used informal arrangements to exploit oversight loopholes, fostering a culture of non-compliance that influenced junior doctors and undermined professional ethics. These informal practices stem from the policy's perceived restrictive conditions, with non-compliance evolving into an accepted norm within the professional environment. As a result, there is a shift away from the positive social norms described in our conceptual framework that typically promote compliance, with non-compliance with policy restrictions becoming part of the established professional culture. Inadequate enforcement and lack of consequences further entrench this culture, reducing adherence and potentially compromising patient care. A key concern is that if health professionals view working hour rules as illegitimate, they are unlikely to see RWOPS restrictions as legitimate either. Our findings underscore the need to cultivate robust ethical practices, particularly among medical specialists, whose adherence to policy restrictions can reinforce professional ethics and positively influence junior staff. Wardhandi *et al*'s systematic review [177] examining the determinants influencing the implementation of quality management systems in hospitals reported that organisational culture, technical competency, and the influential role of medical doctors are key to implementing quality management systems in healthcare. It also highlighted the complexities hospital managers face in navigating a culture where doctors wield significant power in healthcare organisations [177]. This aligns with Mintzberg's view [178] that rigid, rule-bound approaches often fail in professional environments where autonomy and discretion are essential. Consequently, hospital managers must balance enforcing regulations with some flexibility, as overly rigid rules may be perceived as impractical or unfair. This perception could lead professionals to prioritise their own judgement over strict compliance, potentially undermining both ethical practice and policy objectives.

Our study found inconsistent implementation of the MJH policy across provinces and weak monitoring, attributed to ambiguity about the policy provisions, inadequate hospital security, and the complex task of overseeing health professionals. Similarly, Havers et *al*'s qualitative study [179] examining how clinicians in Australian hospitals perceived and implemented a national policy found that clinicians perceived the policy as difficult to implement due to inadequate resources, insufficient training, and unclear communication about policy requirements. Clinicians highlighted challenges in managing workloads and laborious implementation tasks without sufficient personnel, support, or financing, and called for more support and clearer roles for successful implementation. Furthermore, research highlights that overseeing medical professionals presents inherent challenges that can impede policy implementation (9), yet weak leadership structures may further exacerbate these difficulties.

Havers *et al*'s qualitative study [180] exploring factors influencing government-directed policies in hospital settings emphasised that successful policy implementation requires a strong commitment from hospital leaders. Senior leaders must champion the policy, align it with hospital goals, and ensure adequate resources, fostering a culture of accountability. Thus, strengthening HOD oversight could improve enforcement by clarifying responsibilities and ensuring greater consistency across departments. Similarly, Dieleman *et al*'s review [181] of case studies examining the implementation of health workforce policies in various LMICs reported that HRH policies and plans succeed when leaders show strong commitment, use evidence-based approaches, and address genuine workforce needs. Adequate resource allocation, effective planning, leadership, and rigorous monitoring are also vital for their success [181]. This suggests that targeted efforts to enhance leadership involvement could help bridge the gap between policy design and implementation. Wardhandi *et al*'s systematic review [177] reported that while most leadership and quality theories emphasised top management, the review revealed that quality leadership emerged from various sources, including top management, middle management, and senior health professionals [177]. Thus, strengthening the role of senior medical specialists and HODs in championing RWOPS and overseeing RWOPS could reinforce accountability mechanisms and improve compliance. Furthermore, Havers *et al* [180] emphasised that engaging staff at all levels fosters policy understanding and compliance. Structured mechanisms, such as workshops or feedback sessions, allow managers and health professionals to discuss challenges and provide input on RWOPS enforcement. Ongoing dialogue between policymakers, managers, and employees was seen as essential for ownership and adherence, with clear communication channels like formal briefings ensuring staff contributions inform policy adjustments.

Additionally, improving hospital security systems could support better monitoring of staff movements, addressing one of the key practical challenges in policy enforcement. Agyepong and Nagai's qualitative study [182] that examined gaps between health financing and its implementation in Ghana found that despite frontline workers understanding policy requirements without written guidelines, implementation suffers without the necessary resources or tools [182]. Similarly, Havers *et al* [180] underscored the importance of sufficient human and material resources for policy implementation in hospital settings. However, merely acknowledging resource constraints was not sufficient, ensuring that staff responsible for implementation receive adequate training and have sufficient time to implement policies was found to be equally critical.

The sample of health professionals from Gauteng and Mpumalanga public hospitals may not be fully representative of other provinces, particularly considering the varied implementation and enforcement of the RWOPS policy across the two study provinces. Additionally, the controversial nature of the policy may have led to social desirability bias, with interviewees potentially tailoring their responses on compliance or enforcement to align with perceived expectations. The study ensured a diverse range

of health professionals from both urban and rural areas. Efforts were made to create a comfortable environment for participants to reduce social desirability bias, including assuring confidentiality. Despite these limitations, the study has several strengths. It is one of the first to apply Sutinen and Kuperan's socio-economic theory of regulatory compliance to explore MJH policy implementation and its compliance among public sector health professionals. By combining key informant interviews with stakeholders from across South Africa and including three categories of health professionals from both a mainly urban province and a predominantly rural province, the study offers rich, diverse insights into the policy's implementation, contributing to the broader discourse on MJH regulation in South Africa and similar settings.

Our study recommends key strategies to improve RWOPS compliance. First, it emphasises the need for a bottom-up approach to raise policy awareness and engage health professionals and department heads in monitoring compliance, which is essential for fostering perceived legitimacy. This could involve clarifying policy ambiguity and holding consultations with medical specialists and health professionals, increasing their involvement and buy-in, which supports the social norm of collective responsibility in policy adherence. Second, the policy should expand beyond defining RWOPS activities; managers must ensure the availability of the necessary tools, resources, staffing, skills, and infrastructure for effective implementation[183], such as biometric clocking systems, which can improve monitoring and serve as a deterrent for non-compliance. Additionally, hospital managers should prioritise fair and transparent implementation processes for RWOPS, which would enhance the legitimacy of the policy and the authorities enforcing it. Finally, moral suasion, supported by education and engagement, can strengthen social norms, reduce resistance, and promote the policy's legitimacy, reinforcing ethical behaviour and compliance within the hospital setting [116].

7.5. Conclusion

Our study provides new insights into the implementation and compliance with the RWOPS policy among public sector health professionals. We found that inadequate enforcement, managerial inefficiencies, and a lack of perceived legitimacy undermine RWOPS compliance, making non-compliance more appealing. The disconnect between the policy's goals and health professionals' values highlights the need to enhance policy awareness, address ambiguity, and revise hospital guidelines to meet local needs. Additionally, ensuring the availability of the necessary tools, resources, staffing, skills, and infrastructure for effective implementation is critical. Fostering a culture of compliance, with senior health professionals leading by example, will enhance the policy's legitimacy and effectiveness, ultimately improving patient care and service delivery.

CHAPTER 8: PERSPECTIVES ON REMUNERATIVE WORK OUTSIDE THE PUBLIC SERVICE

This open-access article is distributed under Creative Commons licence CC-BY-NC 4.0.

SAMJ RESEARCH

Perspectives of doctors, nurses and rehabilitation therapists in Gauteng and Mpumalanga provinces' public hospitals on remunerative work outside of the public service

B P Matiwane,[1,2] BSc (Physio), MPH; **D Blaauw,**[2] MB BCh, FCPHM; **L C Rispel,**[1,2] PhD

[1] *South African Research Chairs Initiative, School of Public Health, Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, South Africa*
[2] *Centre for Health Policy, School of Public Health, Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, South Africa*

Corresponding author: *B P Matiwane (busisiwe.matiwane@wits.ac.za)*

Background. The remunerative work outside of the public service (RWOPS) policy enables public sector health professionals to engage in multiple job holding (MJH) in South Africa (SA) under specified conditions, but remains controversial. Empirical evidence on health professionals' perspectives on the RWOPS policy stipulations is lacking.
Objective. To examine the perspectives of public sector medical doctors (MDs), professional nurses (PNs) and rehabilitation therapists (RTs) on the RWOPS policy.
Methods. In 2022, public sector MDs, PNs and RTs were surveyed in 14 Gauteng and 15 Mpumalanga province public sector hospitals. In addition to demographic and employment data, the self-administered questionnaire collected information on whether the health professionals had obtained permission for additional jobs, their opinions on RWOPS approval requirements and restrictions and the likelihood that they would leave the public sector if RWOPS was denied. Data analysis was performed using Stata 17. The factors influencing health professionals' perspectives on different aspects of the RWOPS policy were analysed using penalised logistic regression.
Results. A total of 1 397 health professionals completed the survey, for a response rate of 84.3%. Most MDs (61.1%) and RTs (60.5%) supported mandatory RWOPS approval, compared with 41.5% of PNs. Overall, 52.6% of MDs, PNs and RTs engaged in MJH also agreed with mandatory approval. Among those who engaged in MJH, the majority of MDs (84.7%) and RTs (87.4%) had RWOPS permission, compared with only 19.2% of PNs. MDs (odds ratio (OR) 9.9, $p<0.001$) and RTs (OR 30.9, $p<0.001$) were significantly more likely to obtain RWOPS approval than PNs. MDs (OR 2.2, $p<0.001$), RTs (OR 1.5, $p=0.027$), males (OR 1.4, $p=0.039$) and RWOPS participants (OR 2.8, $p=0.030$) were more likely to consider leaving if RWOPS was denied.
Conclusion. Our findings highlight significant variation in obtaining MJH permission among health professionals. The diverse perspectives underscore the need for targeted communication and stakeholder engagement to clarify policy and improve compliance.

Keywords: RWOPS, multiple job holding, dual practice, regulation, health workforce

S Afr Med J 2025;115(4):e2653. https://doi.org/10.7196/SAMJ.2025.v115i4.2653

Human resources for health challenges, including multiple job holding (MJH) by health professionals, workforce shortages, maldistribution of the workforce and skills mismatches, threaten the achievement of universal health coverage.[1] MJH, also known as dual practice, refers to the simultaneous employment of health professionals in the public and private health sectors, regardless of regulatory provision and/or authorisation.[2]

MJH is shaped by health labour markets, country context and institutional arrangements, with evidence suggesting an increasing prevalence in industrialised countries.[3] In sub-Saharan Africa, low public sector salaries and a disconnect between effort and pay or promotion contribute to healthcare workers' decisions to engage in MJH.[4] Regulation is an important policy lever to balance the possible benefits of MJH with any potential adverse consequences to the health system.[5] However, there are variations in the regulatory approaches of governments to MJH, including full prohibition, allowing MJH with specified restrictions, or the provision of incentives to work exclusively in the public sector.[6]

In South Africa (SA), the Public Service Act of 1994[7] makes provision for remunerative work outside of the public service (RWOPS), defined as any business activity conducted or service provided by an employee outside of their official duties, for which they receive payment.[7] Hence, MJH is permitted for all public sector employees, including those in the health sector, provided that they obtain permission from the relevant authority, service delivery is not adversely affected and RWOPS is conducted outside scheduled working hours.[7,8]

The motivation for the introduction of limited private practice that preceded RWOPS was to increase the retention of public sector medical specialists by allowing them to supplement their government salaries. However, RWOPS has proved a contentious issue in the health system.[9-13] Following a complaint by nurses about absent doctors in 2004, the SA Public Service Commission conducted an enquiry into RWOPS in Gauteng Province. This report documented that most doctors and nurses engaged in RWOPS without approval.[14] A 2012 letter in the *South African Medical Journal* highlighted both the medical profession's non-compliance with, and relative silence on, the potential abuse of the RWOPS policy.[15] The letter unleashed a storm that underscored the wide-ranging perspectives and divided opinions on RWOPS, including the purported benefits,[12,13] the negative consequences for junior doctors, patients and professional ethics[11,16] and the

poor management and monitoring that contribute to RWOPS abuse.[9,10,17,18] The intense RWOPS debates between 2012 and 2017 were followed by updated government directives[7,8] and guidelines[19,20] to support the appropriate management and monitoring of RWOPS in the public sector. Additionally, the SA Medical Association recommended compliance with the RWOPS policy,[21] concerned about the abuse due to poor oversight. The association called for stricter management and enforcement by the National Department of Health. RWOPS was also flagged in the 2019 Presidential Health Compact, which underscored the need for policy revision and mechanisms to 'deter the incumbents' from MJH.[22] Nonetheless, a 2022 newspaper article suggests that RWOPS contestations and abuse remain an enduring problem.[23]

In contrast to medical doctors, the debate on RWOPS among nurses and rehabilitation therapists has been largely absent. The Democratic Nursing Organisation of SA views nursing agencies, the main vehicle for MJH among nurses, as labour brokers that should be banned.[24] A search of the journal archives of the physiotherapy, occupational therapy and speech and hearing therapy professional associations yielded no results on RWOPS.

Notwithstanding the fractured discourse, empirical studies on health professionals and the RWOPS guidelines are lacking. Hence, this study aimed to examine the factors that influence the perspectives of medical doctors, professional nurses and rehabilitation therapists in public hospitals on RWOPS policy and guidelines, thus giving voice to frontline healthcare providers while contributing to the policy discourse on MJH in SA. The research is part of a doctoral study that examines MJH among public sector medical doctors, professional nurses and rehabilitation therapists in Gauteng and Mpumalanga provinces of SA.

Methods

In 2022, a cross-sectional study was conducted in 14 hospitals in Gauteng and 15 hospitals in Mpumalanga provinces.[25] The Human Research Ethics Committee (Medical) of the University of the Witwatersrand in Johannesburg provided ethics approval for the study (ref. no. M210262), and the relevant provincial healthcare authorities also provided study permission. The study population comprised full-time medical doctors, professional nurses and rehabilitation therapists working in public sector hospitals in the two provinces. Details of the sampling approach have been described elsewhere.[25]

Following informed consent, the study participants completed a self-administered questionnaire (SAQ) that collected demographic and employment information, and prevalence, forms and reasons for MJH. The last section of the SAQ focused on RWOPS, examining whether: approval should be required; RWOPS should be restricted to after-hours; there should be limits on RWOPS hours; and respondents would leave the public sector if RWOPS was denied. RWOPS compliance was assessed by asking MJH participants if they had obtained permission from the relevant authority, with an option to provide reasons for lack of MJH permission.

We utilised Stata 17 (StataCorp, USA) and the svy commands to adjust for the cluster sampling design. We computed the frequency of responses and compared them across the different health professional categories. We coded the open-ended responses into categories, and compared their frequencies. Bivariate logistic regression was used to determine which variables influence health professionals' perspectives on RWOPS. We employed Firth's penalised logistic regression method[26] to overcome the challenges of ordinary logistic regression when faced with very low or high proportions for certain professional groups. Unlike ordinary logistic regression, Firth's method uses a penalised maximum likelihood approach to ensure finite and reliable parameter estimates in the presence of such data separation.[27] We used pooled models with appropriate weighting to compare the three health professional groups. The first model identified factors associated with perspectives on RWOPS requirements, the second assessed factors influencing whether health professionals had obtained permission for MJH and the third evaluated factors influencing whether they would leave the public sector if RWOPS was denied.

Results

Sociodemographic characteristics

We obtained a response rate of 84.3%, with 1 397 health professionals completing the survey. The characteristics of the research participants are depicted in Table 1. On average, medical doctors (MDs) were aged 39.9 (standard deviation (SD) 9.7) years, professional nurses (PNs) were 43.7 (SD 10.4) years and rehabilitation therapists (RTs) were 32.3 (SD 8.7) years.[25]

Perspectives on RWOPS

Table 2 presents the results on the perspectives of respondents on RWOPS. Most MDs (61.1%) and RTs (60.5%) agreed that approval should be required before engaging in RWOPS, compared with 41.5% of PNs. Overall, 54.0% of those involved in MJH agreed with this statement, compared with 52.6% of those who had not engaged in MJH. The majority of MDs (74.4%), PNs (79.1%) and RTs (79.8%) agreed that RWOPS should only be allowed after working hours, with little difference between the MJH and non-MJH groups. However, 46.4% of MDs, 41.7% of PNs and 37.5% of RTs agreed that the total number of permissible RWOPS hours should be restricted. Less than a third (31.8%) of those engaged in MJH supported restrictions on permissible RWOPS hours, compared with 45.8% of those in the non-MJH group.

Finally, 46.0% (95% confidence interval (CI) 37.0 - 55.3) of MDs, 21.9% (18.7 - 25.5) of PNs and 32.4% (28.5 - 36.6) of RTs stated that they would leave the public sector if RWOPS was denied. The figure was significantly higher for health professionals engaged in MJH (56.5%, 49.6 - 63.4) compared with those who were not (25.1, 21.9 - 28.4).

Compliance with RWOPS permission requirements

Fig. 1 shows the proportion of health professionals with an additional job who reported obtaining permission to engage in RWOPS. A total of 84.7% (75.0 - 91.1) of MDs, 87.4% (79.3 - 92.6) of RTs and only 19.2% (9.1 - 35.9) of PNs had permission for their additional jobs.

Table 3 depicts the primary reasons for not obtaining RWOPS permission from those health professionals who completed the optional question. Among MDs, the primary reasons were that they did not need permission for work done after-hours (28.9%), and did not require RWOPS permission for the type of additional jobs (13.7%). PNs indicated that they anticipated management refusal upon application (25.3%), or believed that they did not need permission for their after-hours work (20.2%). Among RTs, 28.2% reported that they were still awaiting approval due to a lengthy process, while 23.5% indicated that they had never applied for RWOPS.

Factors influencing health professionals' perspectives on RWOPs regulation

Table 4 shows the results of the logistic regression analysis evaluating the factors associated with health professionals' perspectives on RWOPS. Model 1 covers the perspectives on requiring approval before RWOPS. MDs had 1.83 (1.39 - 2.42) and RTs 2.54 (1.87 - 3.46) higher odds of agreeing that approval should be obtained compared

with PNs. Interestingly, medical specialists had 1.37 (1.04 - 1.80) times the odds of agreeing with approval compared with generalists, and clinical heads of department (HODs) had 1.85 (1.34 - 2.56) greater odds compared with those not in management. Having an additional job reduced the likelihood of supporting approval requirements (0.63 (0.48 - 0.83) compared with those without an additional job.

Model 2 presents the factors influencing health professionals' compliance with the RWOPS policy requirement of obtaining permission before engaging in MJH. MDs had 9.84 (4.19 - 23.09) and RTs had 30.53 (12.24 - 76.13) higher odds of obtaining approval for additional jobs compared with PNs. Medical specialists had 2.23 (1.09 - 4.55) times higher odds of having approval compared with generalists, while being a clinical HOD did not influence compliance significantly. Additionally, MDs and RTs who supported mandatory approval had 2.75 (1.52 - 4.97) times greater odds of having approval compared with PNs.

Finally, model 3 depicts the factors influencing health professionals' opinions on whether they would leave the public sector if RWOPS were denied. MDs were 2.21 (1.62 - 3.02) and RTs were 1.49 (1.05 - 2.12) times more likely to say that they would leave the public sector if RWOPS were not permitted compared with PNs. Male respondents were 1.36 (1.02 - 1.82) times more likely to leave compared with females. In contrast, married professionals (odds ratio (OR) 0.78, 0.59 - 0.97) and clinical HODs (OR 0.51, 0.34 - 0.74) reported a significantly lower chance of leaving if RWOPS was denied. Respondents with current additional jobs had 2.83 (2.13 - 3.75) higher odds of leaving if RWOPS was denied. Conversely, those who supported requiring approval for MJH had lower odds (0.63 (0.49 - 0.81)) of leaving if RWOPS was not permitted, compared with those who did not think approval was necessary.

Discussion

This is one of the first empirical studies to examine and compare the perspectives of public sector MDs, PNs and RTs in SA on the RWOPS policy.

In contrast to PNs, the majority of MDs and RTs supported mandatory RWOPS approval, as legally prescribed. Similarly, most MDs and RTs who engaged in MJH had RWOPS permission, while barely one-fifth of PNs had the necessary permission. Those health professionals who engaged in MJH were less likely to support approval requirements compared with those without an additional job. The study findings illustrate the stark differences in reported compliance with the RWOPS policy requiring permission before engaging in MJH. MDs were nearly 10 times more likely and RTs 31 times more likely to obtain RWOPS approval than PNs. Additionally, MDs and RTs who supported mandatory RWOPS approval were almost three times more likely to have approval compared with PNs.

Table 1. Characteristics of study participants (*N*=1 397)[25]

Characteristic	MDs, *n* (%)*	PNs, *n* (%)*	RTs, *n* (%)*
Total sample	486 (34.8)	571 (40.9)	340 (24.3)
Age, years, mean (SD)	39.9 (9.7)	43.7 (10.4)	32.3 (8.7)
Gender			
Male	265 (54.5)	47 (8.2)	57 (16.8)
Female	217 (44.7)	522 (91.3)	277 (81.5)
Other	4 (0.8)	3 (0.5)	6 (1.8)
Marital status			
Single	154 (31.7)	262 (45.9)	202 (59.4)
Married/living together	302 (62.1)	231 (40.4)	129 (37.9)
Divorced/separated	22 (4.5)	41 (7.2)	5 (1.5)
Widowed	8 (1.7)	37 (6.5)	4 (1.2)
Province			
Gauteng	396 (81.5)	445 (77.9)	242 (71.2)
Mpumalanga	90 (18.5)	126 (22.1)	98 (28.8)
Years of practice, mean (SD)	14.7 (9.0)	10.6 (9.1)	9.1 (7.9)
Speciality†			
No	270 (55.6)	388 (68.0)	n/a
Yes	216 (44.4)	183 (32.0)	n/a
Clinical head of department			
No	426 (87.7)	505 (88.4)	278 (81.8)
Yes	60 (12.3)	66 (11.6)	62 (18.2)
Hospital category			
District	102 (21.0)	147 (25.7)	103 (30.3)
Regional	140 (28.8)	155 (27.1)	79 (23.2)
Tertiary	79 (16.3)	82 (14.4)	46 (13.5)
Central	165 (33.9)	187 (32.8)	112 (33.0)
Multiple job holding			
No	322 (66.3)	522 (91.4)	208 (61.3)
Yes	164 (33.7)	49 (8.6)	132 (38.7)

MD = medical doctor; PN = professional nurse; RT = rehabilitation therapist; SD = standard deviation; n/a = not applicable.
*Unless otherwise indicated.
†Only MDs and PNs can undertake registered specialist training.

These differences across the three groups could reflect variations in professional autonomy that influence MJH forms and reporting structures among the three groups. The same survey found that the most common form of MJH among MDs and RTs was private practice, while PNs engaged in MJH through nursing agencies.[25] MDs and most RTs have more flexible work arrangements compared with PNs, who function within team structures and have less autonomy.[28] PNs may avoid seeking RWOPS approval due to fears of recrimination or scrutiny, which aligns with cited concerns about managers controlling their extended working hours. Although a minority of study participants furnished reasons for not seeking RWOPS approval, the belief that permission was not required for RWOPS after hours or for certain types of work was common across all three professions. Furthermore, the PN perspectives also suggest distrust in the RWOPS approval process and/or managerial objectivity. We could not find similar SA studies with which to compare our findings, while variations in context and MJH regulatory approaches limit comparisons with health professional perspectives in other countries.[6] Nonetheless, a 2002 qualitative study in Bangladesh[29] and a 2007 qualitative study in Peru[30] found that individual health professionals supported more stringent MJH regulations to protect the profession or to ensure quality patient care.

Our study found that the expressed likelihood of leaving the public sector service if RWOPS were denied was higher among MDs, RTs, males and those already engaged in RWOPS, compared with PNs (Table 4). In contrast, MDs and RTs who supported the requisite approval had lower odds of leaving if RWOPS were denied than PNs. These perspectives could relate to the differences in financial incentives among the three professions, as the prevalence of MJH was much higher among MDs and RTs, compared with PNs.[25] As the respondents self-reported the information, we do not know whether the threat of leaving the public sector will materialise. A 2010 study among SA nurses found that intention to leave the public sector was higher among those engaged in MJH compared with those who did not engage in MJH.[31] Nonetheless, the threat of leaving the public sector if RWOPS is denied poses a risk to the retention

Table 2. Respondents' perspectives on RWOPS, by professional group and MJH status

	Professional group, *n* (%)			MJH status, *n* (%)	
RWOPS perspective	**MD, 486 (34.8)**	**PN, 571 (40.9)**	**RT, 340 (24.3)**	**No, 1 052 (75.3)**	**Yes, 345 (24.7)**
Should require prior approval for RWOPS					
No	189 (38.9)	334 (58.5)	134 (39.5)	498 (47.4)	159 (46.1)
Yes	297 (61.1)	237 (41.5)	206 (60.5)	553 (52.6)	186 (53.9)
RWOPS should only be allowed after hours					
No	125 (25.6)	119 (20.9)	69 (20.2)	222 (21.2)	90 (26.1)
Yes	361 (74.4)	452 (79.1)	271 (79.8)	829 (78.8)	255 (73.9)
RWOPS hours should be restricted					
No	260 (53.6)	333 (58.3)	213 (62.5)	570 (54.2)	235 (68.2)
Yes	225 (46.4)	238 (41.7)	127 (37.5)	482 (45.8)	110 (31.8)
Would leave public sector job if RWOPS denied					
No	262 (54.0)	446 (78.1)	230 (67.6)	788 (74.9)	150 (43.5)
Yes	224 (46.0)	125 (21.9)	110 (32.4)	264 (25.1)	195 (56.5)

MJH = multiple job holding (additional job in the preceding 12 months); RWOPS = remunerative work outside of the public service; MD = medical doctor; PN = professional nurse; RT = rehabilitation therapist.

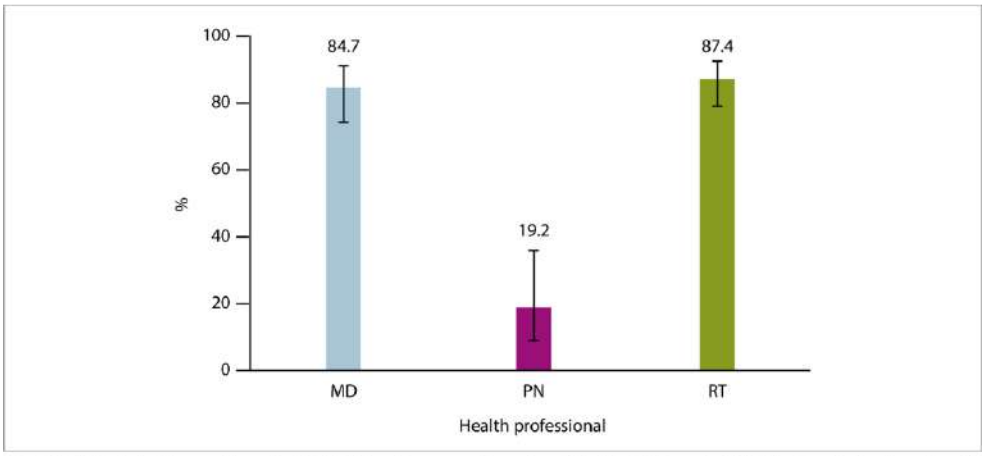


Fig. 1. Health professionals engaged in multiple job holding with remunerative work outside of the public service (RWOPS) approval. Error bars show 95% confidence interval. (MD = medical doctor; PN = professional nurse; RT = rehabilitation therapist.)

Table 3. Listed reasons for doing RWOPS without permission, ranked

MDs	*n* (%)	PNs	*n* (%)	RTs	*n* (%)
1. Permission is not required for RWOPS after hours	7 (28.9)	1. RWOPS will be declined	10 (25.3)	1. Long approval process, awaiting approval	4 (28.2)
2. RWOPS not required for type of work	3 (13.7)	2. Permission is not required for RWOPS after hours	8 (20.2)	2. Never applied for RWOPS	4 (23.5)
3. RWOPS will be declined	3 (12.0)	3. Concerns about managers controlling extended working hours	7 (18.9)	3. RWOPS is not required for type of work	3 (16.7)
4. Never applied for RWOPS	3 (11.8)	4. Long approval process, awaiting approval	3 (7.2)	4. Permission is not required for RWOPS after hours	2 (12.8)
5. RWOPS was declined	2 (6.2)	5. RWOPS is not required for the type of work	2 (5.9)	5. RWOPS will be declined	1 (9.6)
6. Long approval process, awaiting approval	2 (6.0)	6. Never applied for RWOPS	2 (5.0)	6. Concerns about managers controlling extended working hours	1 (5.2)
Other	5 (21.4)	Other	9 (17.5)	7. Unfamiliarity with the RWOPS policy	1 (4.0)
Total	25 (100.0)		41 (100.0)		16 (100.0)

RWOPS = remunerative work outside of the public service.

Table 4. Logistic regression analysis of health professionals' attitudes toward RWOPS

	Model 1: RWOPS approval necessary			Model 2: Had obtained approval			Model 3: Would leave if RWOPS banned		
Variable	**OR**	**95% CI**	***p*-value**	**OR**	**95% CI**	***p*-value**	**OR**	**95% CI**	***p*-value**
Profession									
PN	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
MD	1.83	1.39 - 2.42	<0.001***	9.84	4.19 - 23.09	<0.001***	2.21	1.62 - 3.02	<0.001***
RT	2.54	1.87 - 3.46	<0.001***	30.53	12.24 - 76.13	<0.001***	1.49	1.05 - 2.12	0.027*
Gender									
Female	ref.	ref.	ref.	-	-	-	ref.	ref.	ref.
Male	0.96	0.73 - 1.26	0.769	0.99	0.53 - 1.86	0.977	1.36	1.02 - 1.82	0.039*
Marital status									
Single†	-	-	-	-	-	-	ref.	ref.	ref.
Married	-	-	-	-	-	-	0.75	0.59 - 0.97	0.030*
Speciality									
No	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
Yes	1.37	1.04 - 1.80	0.024*	2.23	1.09 - 4.55	0.028*	1.27	0.93 - 1.73	0.129
Clinical HOD									
No	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
Yes	1.85	1.34 - 2.56	0.014*	0.71	0.31 - 1.62	0.414	0.51	0.34 - 0.74	0.001**
Province									
Mpumalanga	ref.	ref.	ref.	-	-	-	ref.	ref.	ref.
Gauteng	0.94	0.76 - 1.17	0.568				0.96	0.76 - 1.25	0.021
Additional job									
No	ref.	ref.	ref.	-	-	-	ref.	ref.	ref.
Yes	0.63	0.48 - 0.83	0.001**	-	-	-	2.83	2.13 - 3.75	<0.001***
Is approval necessary?									
No	-	-	-	ref.	ref.	ref.	ref.	ref.	ref.
Yes	-	-	-	2.75	1.52 - 4.97	0.001**	0.63	0.49 - 0.81	<0.001***
n	1 397	-	-	321	-	-	1397	-	-
χ^2	63.8	-	-	63.7	-	-	137.9	-	-
p-value	<0.001	-	-	<0.001	-	-	<0.001	-	-

RWOPS = remunerative work outside of the public service; OR = odds ratio; CI = confidence interval; PN = professional nurse; MD = medical doctor; RT = rehabilitation therapist; ref. = reference category; HOD = head of department.
*$p<0.05$.
**$p<0.01$.
***$p<0.001$.
†Single, divorced/separated and widowed combined.
‡Firth penalised logistic regression. Model 2 only for those engaged in MJH.

of health professionals in the public sector, which has numerous health workforce challenges. Although the question was not phrased as an outright RWOPS ban, a systematic review of MJH regulatory approaches in different countries reported that banning MJH often led to senior skilled MDs migrating to the private sector.[2] Similarly, in SA, public sector medical specialists in Gauteng resigned after threats to ban MJH, while those in Free State Province contested attempts to introduce a ban.[17] Moreover, an SA study[32] found that MDs often did RWOPS without permission, making a ban unlikely to resolve the issue.

Our study found that the majority of MDs, PNs and RTs were against the restriction of RWOPS hours, but indicated a preference for MJH after hours (Table 2). This is encouraging, as a systematic review reported that public sector doctors generally preferred schedules that allowed more time in the private sector.[2] Nonetheless, the support among the majority of RWOPS participants for RWOPS after working hours suggests consideration of patient welfare, ethical conduct and social responsibility.[33]

Study limitations

Our study is limited by its cross-sectional nature and self-reported information from MDs, PNs and RTs, which may have introduced social desirability bias, with health professionals potentially overstating their compliance with written approval or support for the policy. However, the SAQ was designed to minimise this potential bias. Additionally, conducting the study in only two provinces limits the generalisability of the findings to the rest of the country. However, a major methodological strength of the study is the high response rate of 84.3%. The study is novel as it is one of the few comparative studies on health professionals' perspectives on the RWOPS policy, their reported compliance with approval guidelines, their views on the likelihood of leaving the public sector if denied RWOPS and the factors influencing these views.

We have advanced the discourse on the regulation of MJH in SA, with implications for revision and/or refinement of the RWOPS policy and its management in hospitals. Both the 2019 Presidential Health Compact[22] and the 2030 Health Workforce Strategy[34] underscore the need for an RWOPS policy review. Our study findings suggest high levels of reported compliance among MDs and RTs, but very low compliance among PNs, who remain the mainstay of the SA health system. This requires policy and management intervention. Further research is needed on whether the RWOPS approval records for MDs and RTs align with reported approval, and whether health professionals adhere to the approved working hours. Although restrictions of RWOPS hours could be an area for policy adjustment, evidence suggests that consistent monitoring of the existing policy could deter opportunistic behaviour among health professionals.[35] Additionally, our study found that clinical HODs are supportive of the RWOPS policy, and could assist hospital management to monitor and enforce the policy provisions.

All three professions highlighted the long approval process, suggesting the need for streamlined procedures or systems that enhance compliance. The apparent misconceptions about RWOPS approval for all forms of MJH require targeted information and communication campaigns to clarify the RWOPS policy guidelines to all health professionals. Clear, consistent communication using existing Department of Public Service and Administration guidelines[19] and directives[7] is essential for motivating staff, managing resistance and building trust.[36] User-friendly guidelines should be developed by employers and professional associations, and creative strategies employed to reach all health professionals.

Conclusion

Our study has generated new knowledge on the RWOPS policy and the views of medical doctors, professional nurses and rehabilitation therapists. The study has also contributed to the global discourse on MJH and its regulation. The diverse perspectives on RWOPS among health professionals suggest the need for stakeholder engagement and targeted information and communication regarding policy content and compliance. Simultaneously, RWOPS approval systems and improved monitoring should be addressed by the provincial health authorities.

Data availability. Data are available from the authors upon reasonable request.

Declaration. None.

Acknowledgements. We thank the participants, hospital management for facilitating the study, and Lindiwe Somwahla and Pako Papers for fieldwork assistance.

Author contributions. All authors conceptualised the research project. LR and DB supervised the study. BM developed the first draft of the manuscript. All authors contributed to, reviewed and approved the final manuscript.

Funding. Funding from the South African Research Chair Initiative (SARChI) of the National Research Foundation (#102219), held by LR, and a 2021 Wits Faculty of Health Sciences Research Committee Grant supported this study. The views expressed are solely those of the authors.

Conflicts of interest. None.

1. World Health Organization. Working for Health 2022 - 2030 action plan: Planning and financing. Geneva: WHO, 2022. https://apps.who.int/iris/bitstream/handle/10665/365796/9789240063389-eng.pdf?sequence=1 (accessed 9 March 2022).
2. Kiwanuka SN, Kinengyere AA, Rutebemberwa E, et al. Dual practice regulatory mechanisms in the health sector: A systematic review of approaches and implementation. London EPPI-Centre Social Science Research Unit, Institute of Education, University of London, 2011. http://eppi.ioe.ac.uk/cms/Portals/0/PDF%20reviews%20and%20summaries/Dual%20Practice%202011%20Kiwanuka.pdf (accessed 26 March 2020).
3. Järvensivu A, Pulkki J. Multiple job holding, societal change, and individual careers: Contributions to the chaos theory of careers. Austr J Career Development 2020;29(1):67-76. https://doi.org/10.1177/1038416219886710
4. Ensor T, Serneels P, Lievens T. Public and private practice of health workers. In: Soucat A, Scheffler R, Ghebreyesus TA, eds. The Labour Market for Health Workers in Africa: A New Look at the Crisis. Washington DC: World Bank, 2013.
5. World Health Organization. Global strategy on human resources for health: Workforce 2030. Geneva: WHO, 2016. https://apps.who.int/iris/bitstream/handle/10665/250368/?sequence=1 (accessed 9 January 2023).
6. García-Prado A, Gonzalez P. Policy and regulatory responses to dual practice in the health sector. Health Policy 2007;84(2-3):142-152. https://doi.org/10.1016/j.healthpol.2007.03.006
7. Department of Public Service and Administration, South Africa. Directive on other remunerative work outside the employee's employment in the relevant department as contemplated in section 30 of the Public Service Act, 1994. Pretoria: DPSA, 21 February 2024. https://www.dpsa.gov.za/dpsa2g/documents/item/2024/Directive%20on%20Other%20Remunerative%20Work%20Outside%20an%20Employees%20Employment.pdf (accessed 20 March 2024).
8. Department of Public Service and Administration, South Africa. Directive on other remunerative work outside the employee's employment in the relevant department as contemplated in section 30 of the Public Service Act, 1994. Pretoria: DPSA, 1 November 2016. Republic of South Africa Department of Public Service and Administration. https://www.sangeon.co.za/wp-content/uploads/2016/12/directive_rwops_30_09_20161-002.pdf (accessed 26 September 2020).
9. Bateman C. RWOPS abuse – government's bad enough: Izindaba. S Afr Med J 2012;102(12):899-901. https://doi.org/10.10520/EJC128996.
10. Bateman C. RWOPS abuse could cost, or even ruin, offenders. S Afr Med J 2013;103(8):506-508. https://doi.org/10.1796/SAMJ.7235
11. Benatar S. Professional competence and professional misconduct in South Africa. S Afr Med J 2014;104(7):480-482. https://doi.org/10.7196/SAMJ.8492
12. Shipley J. Private practice (RWOPS) and overtime for state-employed specialists. SA Orthopaedic J 2015;14(1):18-19. https://www.scielo.org.za/scielo.php?pid=S1681-150X2015000100003&script=sci_arttext (accessed 22 July 2024).
13. Taylor A, Kahn D. The RWOPS debate – yes we can! S Afr Med J 2014;104(7):475-457. https://doi.org/10.7196/SAMJ.8050
14. Public Service Commission, South Africa. Remunerative work outside the public service: An investigation undertaken in the Gauteng Provincial Health sector. Pretoria: PSC, 2007. https://www.psc.gov.za/documents/2004/remunerative_woroutside_gsc.pdf (accessed 11 March 2020).
15. Goldstein I.N. Thieves of the state. S Afr Med J 2012;102(9):719. https://doi.org/10.7196/SAMJ.6165
16. Bateman C. RWOPS abuse eroding ethical standards of juniors. S Afr Med J 2013;103(8):505-506. https://doi.org/10.7196/SAMJ.7165
17. Bateman C. RWOPS clamp down – a crisis in the offing. S Afr Med J 2013;103(6):361-364. https://doi.org/10.7196/SAMJ.7029
18. Bateman C. RWOPS – light at the end of a dusty tunnel: Izindaba. S Afr Med J 2013;103(12):888. https://doi.org/10.10520/EJC145669

19. Department of Public Service and Administration, South Africa. Guide on managing other remunerative work in the public service. Pretoria: DPSA, 2020. https://www.dpsa.gov.za/dpsa2g/documents/item/2020/Guide%20on%20Other%20Remunerative%20Work%20in%20the%20%20Public%20Service.pdf (accessed 26 September 2020).
20. National Department of Health, South Africa. A comprehensive policy guideline on remunerative work outside of the public service ('RWOPS') for medical practitioners and dentists. Pretoria: NDoH, 2017.
21. South African Medical Association. SAMA urges compliance with remunerative work outside public service (RWOPS). South African Medical Association Weekly Newsletter, 2022. https://www.samedical.org/cmsuploader/viewArticle/2179 (accessed 8 July 2024).
22. South African Government. Strengthening the South African health system towards an integrated and unified health system. Presidential Health Summit Compact. Pretoria: Office of the Presidency, 2019. https://www.gov.za/sites/default/files/gcis_document/201902/presidential-health-summit-report.pdf (accessed 20 June 2020).
23. Copelyn J, van Dyk J. South Africa's moonlight sonata: The illicit cash cow care at state hospitals. Mail & Guardian, 6 July 2022. https://mg.co.za/health/2022-07-06-south-africas-moonlight-sonata-the-illicit-cash-cow-draining-specialist-care-at-state-hospitals/ (accessed 22 July 2024).
24. Democratic Nursing Organisation of South Africa. National Congress Resolutions 2019. Cape Town: DENOSA, 2019. https://www.denosa.org.za/wp-content/uploads/2022/04/NATIONAL-revised-29-10-2019_.pdf (accessed 22 July 2024).
25. Matiwane BP, Blaauw D, Rispel LC. Examining the extent, forms and factors influencing multiple job holding among medical doctors, professional nurses and rehabilitation therapists in two South African provinces: A cross-sectional study. BMJ Open 2023;13(12):e078902. https://doi.org/10.1136/bmjopen-2023-078902
26. Firth D. Bias reduction of maximum likelihood estimates. Biometrika 1993;80(1):27-38. https://doi.org/10.1093/biomet/80.1.27
27. Heinze G, Schemper M. A solution to the problem of separation in logistic regression. Stat Med 2002;21(16):2409-2419. https://doi.org/10.1002/sim.1047
28. Russo G, Fronteira I, Jesus T, Buchan J. Understanding nurses' dual practice: A scoping review of what we know and what we still need to ask on nurses holding multiple jobs. Hum Res Health 2018;16(1):1-16. https://doi.org/10.1186/s12960-018-0276-x
29. Jumpa M, Jan S, Mills A. The role of regulation in influencing income-generating activities among public sector doctors in Peru. Hum Res Health 2007;5(1):5. https://doi.org/10.1186/1478-4491-5-5
30. Gruen R, Anwar R, Begum T, Killingsworth JR, Normand C. Dual job holding practitioners in Bangladesh: An exploration. Soc Sci Med 2002;54(2):267-279. https://doi.org/10.1016/S0277-9536(01)00026-0
31. Rispel LC, Chirwa T, Blaauw D. Does moonlighting influence South African nurses' intention to leave their primary jobs? Glob Health Act 2014;7:25754. https://doi.org/10.3402/gha.v7.25754
32. Ashmore J, Gilson L. Conceptualizing the impacts of dual practice on the retention of public sector specialists – evidence from South Africa. Hum Res Health 2015;13(3):1-9. https://doi.org/10.1186/1478-4491-13-3
33. Berman P, Cuizon D. Multiple public-private job-holding of health care providers in developing countries: An exploration of theory and evidence. London: Department for International Development Health Systems Resource Centre, 2004. https://assets.publishing.service.gov.uk/media/57a08cd5ed915d622c0015ed/Multiple-public-private-jobholding-of-healthcare-providers.pdf (accessed 19 February 2020).
34. National Department of Health, South Africa. 2030 Human Resources for Health Strategy: Investing in the health workforce for universal health coverage. Pretoria: NDoH; 2020. https://www.spotlightnsp.co.za/wp-content/uploads/2020/08/2030-HRH-strategy-19-3-2020.pdf (accessed 19 February 2022).
35. Garcia-Prado A. Sweetening the carrot: Motivating public physicians for better performance. Washington, DC: World Bank Publications, 2005.
36. Burke K, Morris K, McGarrigle L. An introductory guide to implementation: Terms, concepts and frameworks. Dublin: Centre for Effective Services, 2012. http://hdl.handle.net/10147/306846. (accessed 24 May 2024).

Received 17 January 2025; accepted 24 January 2025.

CHAPTER 9: DISCUSSION AND RECOMMENDATIONS

9.1. Introduction

Multiple job holding (MJH) has not featured prominently in the global HRH discourse to date, despite its significant impact on the performance of health systems [2]. In South Africa, debates on MJH by the Presidency [70] and in the health sector [4, 69, 112] highlighted the knowledge gaps on the RWOPS policy as a regulatory mechanism, as well as the extent of and factors influencing MJH. My PhD study began to address these knowledge gaps by investigating the experiences, extent (prevalence), contributory factors, and regulation of MJH among public sector medical doctors, professional nurses, and rehabilitation therapists in the Gauteng and Mpumalanga provinces of South Africa.

In this concluding chapter, I have integrated and discussed the key findings of the thesis (chapters 4 to 8). In Section 9.2, I have summarised the study findings, followed by an integrated discussion. In Section 9.3, I discuss the recommendations arising from the PhD study. Section 9.4 highlights the scholarly contributions of the PhD study. Section 9.5 provides recommendations for future research.

9.2. Key findings and cross-cutting discussion

The key findings of the PhD study are summarised in **Table 14**, which presents four key themes: the extent and forms of MJH; motivations and factors influencing MJH; health professionals' preferences for MJH regulatory options and RWOPS implementation and compliance. The cross-cutting discussion will focus on the findings for each objective, organising them around the four key themes and bringing together the results from the separate papers to form an integrated narrative of the PhD project. Although it overlaps with the discussions in individual papers, this section integrates key findings across the thesis. This section also outlines key implications and recommendations, which are explored further in Section 9.5.

Table 14: Summary of the key PhD findings

1. Extent (prevalence) and forms of MJH • MJH prevalence differed significantly across the three professions: 38.7% among rehabilitation therapists; 33.7% among medical doctors; and 8.6% among professional nurses. • MJH prevalence among medical specialists was 52.2%, compared to 18.9% among generalists (medical practitioners/officers). • MJH prevalence was highest among orthopaedic surgeons (77.4%), followed by surgeons (63.5%) and anaesthesiologists (59.0%). • MJH prevalence was 53.0% among physiotherapists, 32.0% among speech therapists/audiologists and 29.5% among occupational therapists. • The prevalence of MJH or overtime work in the public sector was 92.9% among medical doctors, 59.4% among nurses, and 54.8% among rehabilitation therapists. • Doctors and rehabilitation therapists typically engaged in MJH through independent private practice, whereas nurses worked through agencies.
2. Motivations and factors influencing MJH • Financial motivation was the primary driver of MJH, encompassing income supplementation, financial stability, debt repayment, and aspirations for a better lifestyle. • Secondary drivers of MJH included job variety, career development and professional fulfilment. • Poor management, insufficient accountability, and inadequate resources in the public sector reinforced MJH participation. • Medical specialists (OR 4.3), doctors living in Gauteng, married nurses (OR 2.4), and male rehabilitation therapists (OR 2.4) were statistically more likely to engage in MJH.
3. Health professionals' preferences for MJH regulatory options • Doctors, nurses, and rehabilitation therapists were strongly opposed to banning MJH, requiring salary increases of 45.7%, 20.0%, and 42.8%, respectively, to accept a ban. • Non-financial incentives were also influential, with doctors, nurses, and rehabilitation therapists willing to forgo 57.9%, 54.8%, and 38.9% of their salaries, respectively, for an improved clinical practice environment. • Banning MJH could be mitigated by salary increases or a well-equipped clinical environment. • Better working conditions and hospital management could improve retention, even if MJH is prohibited. However, overtime or improved hospital management alone would need to be paired with other incentives to effectively support retention. • Health professionals involved in MJH were more resistant to a ban and placed lower importance on salary increases and clinical conditions than those not engaged in MJH.
4. RWOPS implementation and compliance • The RWOPS policy faced challenges due to ambiguity about the policy, inconsistent implementation, weak oversight, and lack of accountability. • These challenges hindered effective management and contributed to inconsistent compliance, which varied between the two study provinces. • Doctors (84.7%) and rehabilitation therapists (87.4%) were more likely to obtain RWOPS approval, compared to professional nurses (19.2%). • Health professionals generally supported the requirement for mandatory RWOPS approval, but this differed by category and engagement in MJH: o The majority of doctors (74.4%), nurses (79.1%), and rehabilitation therapists (79.8%) also agreed that RWOPS should only be allowed after working hours. o 46.4% of doctors, 41.7% of nurses, and 37.5% of rehabilitation therapists supported restricting the total number of permissible RWOPS hours. o 31.8% of health professionals engaged in MJH supported restrictions on RWOPS hours, compared to 45.8% of those in the non-MJH group.

9.2.1. The extent and forms of MJH

The findings of this study highlight key differences in the extent and nature of MJH engagement among medical doctors, professional nurses, and rehabilitation therapists, shaped by the health labour market (see conceptual framework in Chapter 3), variations in autonomy, work schedules, and hospital management.

The PhD findings (Chapter 4) highlight significant variation in the prevalence of MJH across three categories of health professionals. Medical doctors (33.7%) and rehabilitation therapists (38.7%) had comparable levels of MJH, whereas nurses (8.6%) showed a notably lower prevalence. Although the majority of medical doctors, professional nurses, and rehabilitation therapists, did not engage in MJH, the prevalence among medical specialists (52.2%) and physiotherapists (53.0%) is particularly concerning given the reported inadequate oversight in public hospitals (Chapters 5 & 7). The high prevalence of MJH among medical specialists and rehabilitation therapists may be explained by the demand for medical specialists in the private sector, as well as the lucrative earning potential for medical specialists and rehabilitation therapists as reported in the qualitative findings (Chapter 5). This aligns with the literature suggesting that higher private-sector salaries increase the prevalence of MJH among high-earners [12, 31, 34]. Although agency work allows nurses to increase their income, their opportunities for MJH outside the public sector are more limited than medical doctors and rehabilitation therapists. Furthermore, although nurses generally earn lower salaries, the salary differences between the public and private sectors, including agency work, are less significant than those for medical doctors and rehabilitation therapists [4].

Medical doctors and rehabilitation therapists engaged in MJH mainly as independent practitioners, reflecting their autonomy compared to nurses who mainly worked through nursing agencies (Chapter 4). The autonomy of medical doctors together with their more flexible public sector schedules, commuted overtime and heterogenous work responsibilities provide numerous opportunities for MJH. This flexibility and the unofficial arrangements among colleagues (Chapter 7) allow them to structure their time in ways that enable MJH. Existing literature supports this. Russo *et al*'s scoping review [40] reported that medical doctors have more flexibility in MJH than nurses, who are constrained by their team-oriented roles and limited autonomy. As a result, nurses often take on additional jobs through agency nursing or private nursing homes [40]. Rehabilitation therapists, despite having more structured public sector schedules, still have greater opportunities for MJH than nurses due to weak oversight and unofficial agreements among colleagues to circumvent RWOPS hour restrictions (Chapter 7). Nurses, while restricted by 12-hour shifts in the public sector, often engage in MJH within similar shift structures through agency work. However, this scheduling also provides full days off during a normal week or when on night duty, allowing flexibility and autonomy for MJH. Companion *et al* [24] found that the structure of an individual's primary job can create opportunities for additional work, with

irregular shifts, such as those worked by firefighters and police officers, offering time for secondary employment. Thus, the reported low prevalence of MJH among nurses in this study is somewhat surprising, especially given the high demand for their services in the private sector (as reported in Chapter 5). However, this may be explained by their preference for working overtime through private nursing agencies within their own hospitals, as highlighted in Chapter 5. Nurses opting to work additional hours at their primary jobs has been reported in other settings [40].

The decision to take a second private job is influenced by whether health professionals also work overtime in their primary jobs. The prevalence of MJH or overtime was highest among medical doctors, followed by nurses and rehabilitation therapists. For medical doctors, commuted overtime is part of the standard employment contract in South Africa to ensure adequate hospital coverage [148]. For nurses, overtime is optional; they may work directly for public hospitals or through private nursing agencies (Chapter 5). Overtime for rehabilitation therapists varies by province and professional category. For instance, some physiotherapists may be required to work on weekends, and whether they are compensated for this depends on the hospital. Therefore, medical doctors, nurses and rehabilitation therapists (who receive overtime pay) have opportunities for additional work in both sectors. This higher prevalence of MJH or overtime among the three professional groups underscores the demand for their services in both private and public sectors, as detailed in Chapter 5. Nonetheless, the MJH or overtime prevalence of 92.9% among medical doctors, 59.4% among nurses and 54.5% raises concern, particularly given reports of non-adherence to regulations [94, 115] and fatigue associated with MJH, as highlighted by the health professionals in Chapter 5. Furthermore, the International Council of Nurses have underscored the negative impact of excessive working hours on the health and well-being of nurses, which in turn influences their ability to provide safe patient care [184].

According to Betts's organisational theory on moonlighting [89], the decision to engage in MJH is influenced by individual choice and shaped by the employing organisation, which may either facilitate or restrict MJH through regulations on working hours and human resource management. Furthermore, aligning with Russo's framework [29], this study found that the forms and prevalence of MJH were influenced by the local market structure for medical doctor services, reflecting the demand for health professionals in both the private and public sectors and health system governance, which regulates and implements MJH. Moreover, weak management of MJH, especially within hospitals, contributed to its prevalence, illustrating how governance and market demand shape the practice of MJH. Weak oversight, seen among both doctors and some rehabilitation therapists (Chapter 7), provides flexibility that facilitates MJH. The issue is not merely the high prevalence of MJH but that it may occur outside the provisions of the RWOPS policy, raising concerns about compliance and regulation. The study illustrates how ineffective management and porous systems in the public sector, combined with high private sector salaries, contribute to the high prevalence of MJH. It shows that greater autonomy and

income disparities incentivise specialists and some rehabilitation therapists to engage in various forms of MJH in the private sector.

9.2.2. Motivations and factors influencing MJH among health professionals

This study found that the three categories of health professionals engaged in MJH primarily for financial reasons, though non-financial motivations were also significant (Chapters 4 & 5). These findings are consistent with similar patterns observed among medical doctors [7, 41] and nurses [40, 185]. The financial and non-financial motivations for MJH were similar across the three categories of health professionals, with some distinct differences across the groups. Financial motivations included income supplementation, financial stability, debt repayment, and aspirations for an improved lifestyle (Chapters 4 & 5). Nurses, in particular, engaged in MJH to supplement public sector salaries, gain financial stability, and enhance their lifestyles. This finding is consistent with a 2025 cross-sectional study [185] on MJH among 924 Belgian nurses, which found that economic hardship was a key motivator influencing engagement in MJH. Specifically, 34.6% pursued additional work to boost their income, while 15.8% cited financial need as their main reason [185]. Similarly, Russo's scoping review [40] of MJH among nurses reported that nurses engaged in MJH to increase their low salaries and take advantage of the flexibility offered by part-time additional jobs. Furthermore, in this study, nurses appreciated the private nursing agency's quick payment system (Chapter 5), aligning with Rispel *et al*'s survey [28] among South African nurses, which found that the agency's weekly pay was an important reason for many nurses engaging in MJH.

Medical doctors and rehabilitation therapists engaged in MJH to supplement what they perceived as inadequate public sector salaries and to meet various financial expectations (Chapters 4 & 5). While no comparable studies on rehabilitation therapists could be found, similar patterns have been observed among medical doctors in other settings. According to Hoogland's review [41] of MJH among medical doctors in 157 countries, low public sector salaries were the most common reason for MJH, reported in 65% of LMICs and 30% of HICs. Moghri's scoping review [7] of MJH among medical practitioners and specialists in Iran supports this, highlighting that the lower wages in the public sector compared to the private sector, were the main drivers of MJH among practitioners and specialists. Despite methodological and contextual differences, all these studies, including my own, underline that the primary financial motivation for medical doctors is to supplement perceived low wages and secure the desired financial rewards. Furthermore, in my study medical doctors' and rehabilitation therapists' preference for increased overtime hours (Chapter 6) aligns with the microeconomic labour theory, which suggests that individuals seek additional jobs when constraints on hours in their primary job limit income potential [16-19]. Furthermore, Bayat's 2019 cross-sectional study [99] among 666 Iranian GPs identified expected income as a contributing factor. In my PhD findings, financial aspirations or expected income were key motivators for MJH, making the higher-paying private sector more appealing

(Chapter 5). This aligns with the notion that when health professionals perceive their income as insufficient to meet financial goals, they pursue additional employment, to supplement their earnings [186]. Lastly, MJH for entrepreneurial purposes (turning hobbies into profit-making ventures) as reported in other settings [24] aligns with the heterogeneous job explanation [16] where individuals take additional jobs to acquire business skills or gain new experiences. However, entrepreneurial or profit-driven motivations for MJH could pose challenges, especially if they overshadow the primary goal of providing patient care [187]. This risk may undermine the RWOPS policy's aim to ensure that MJH does not compromise patient care or health professionals' performance. Although the primary goal of medicine is patient care, health professionals should be encouraged to balance their personal well-being and aspirations with their professional responsibilities, without reducing their practice to a solely profit-driven endeavour [188].

Non-financial reasons for MJH, such as job variety, career growth, and job fulfilment (Chapters 4 & 5), were also significant among the three categories of health professionals. These non-financial incentives, such as career growth (Chapter 4), align with non-financial motivations in microeconomic labour theory, where individuals pursue additional jobs to acquire new skills and qualifications [16-19]. Similarly, a systematic review[24] of MJH across different industries and a cross-sectional study [91] examining MJH motivations across 20 different sectors found that career development/career growth, psychological fulfilment and personal interests were important non-financial incentives for MJH. The latter study [91] also demonstrated that people engage in MJH for multiple reasons, rather than being solely driven by financial struggles or career interests. Collectively, these findings highlight that individuals' decisions to engage in MJH reflect a rational response to available opportunities, balancing both financial and non-financial incentives.

Aligning with Bett's organisational theory on moonlighting [89], this study found that MJH provided health professionals with additional work-related benefits. Through MJH, the primary job was no longer the sole provider of work-related benefits; instead, health professionals combined advantages from both jobs. MJH served a supplementary role by providing additional income to augment public sector salaries and a complementary role by offering resources for quality care, entrepreneurial opportunities, exposure to different sectors, and job fulfilment. In this study, these non-financial incentives, played a significant role in influencing health professionals' engagement in MJH (Chapter 4), demonstrating how supplementary income and career development opportunities enriched their overall work experience. Previous research has similarly shown that MJH enhances learning outcomes through the complementarity of tasks and skills across jobs [91, 189]. In this study, all three professional groups valued career pathing opportunities in the private sector (Chapter 4), and my qualitative findings (Chapter 5) revealed that MJH improved their clinical and business skills. Consequently, the combination of supplementary (extra income) and complementary (business skills) benefits can be seen

as positive consequences of MJH (see conceptual framework, Chapter 3), which may play a crucial role in health professionals' decisions to remain in the public sector while pursuing private sector opportunities. Additionally, factors such as the inadequate regulation of working hours, RWOPS policy provisions, and the demand for nurses and specialists contributed to health professionals seeking both financial and non-financial benefits, reinforcing Bett's theory on moonlighting [89].

Moreover, Bett's organisational theory further highlights that as much as dissatisfaction with primary job working conditions can push individuals to take up additional jobs, exposure to MJH also changes their perceptions and attitudes about the primary job [89]. This exposure may lead to increased dissatisfaction with the public sector due to the better resources, high earnings and functioning of the private sector. In this study, poor working conditions and perceived low public sector wages drove health professionals to the private sector. For most health professionals, private sector earnings offered them several benefits, such as a break from the mundane public sector work, financial earnings beyond subsistence requirements (Chapter 5), and, for some, private sector earnings and skills led them to consider leaving the public sector and focusing solely on their private sector jobs (Chapter 7). Similarly, Ashmore and Gilson's qualitative study [94] found that MJH influenced how medical specialists in South Africa assessed their job options, with its financial and non-financial benefits improving job satisfaction for some, while the increased workload due to MJH led others to leave the public sector for full-time private practice.

My PhD findings also revealed that, despite key informants reporting that medical doctors, especially specialists, received reasonable salaries (Chapter 5), certain demographic factors (such as gender) (Chapter 4) and situational factors (such as being a breadwinner) (Chapter 5) drove medical doctors to engage in MJH to meet financial demands and aspirations. Campion *et al* [24] reported similar findings in their systematic review, highlighting how demographic factors including gender and family composition, as well as situational factors such as financial responsibilities, influence MJH, varying by occupation and context. Similarly, a Norwegian study [34] of 12,399 public-sector doctors found that cohabitation, having young children, speciality, and gender, alongside economic pressures like individual debt and income levels, contributed to MJH engagement. This was despite Norway's competitive public-sector salaries, reinforcing the idea that MJH is also often driven by individual financial demands rather than just low pay. Similarly, although public-sector health professionals in SA have been reported to receive competitive salaries compared to other LMICs [4], in this study, factors such as gender, number of dependents, speciality, and marriage (Chapter 4), coupled with financial pressures like debt, mortgage payments, school fees, and the responsibility of supporting nuclear and extended families (Chapter 5), made MJH a necessity, particularly for those with a high number of dependents (Chapter 5). Furthermore, some health professionals in my study reduced their public sector

hours (Chapters 5 & 7) to pursue MJH opportunities, highlighting that financial pressures and personal circumstances, rather than salary levels alone, may be key drivers of MJH.

9.2.3. Health professionals' preferences for MJH regulatory options

Previous reviews have argued that *rewarding* MJH policies are better suited to HICs while *limiting* policies are recommended for LMICs due to regulatory constraints [12]. However, the DCE (Chapter 6) and survey (Chapter 8) findings show that health professionals in South Africa prefer a mix of both. The survey indicates broad support across professional groups for approval requirements and restricting MJH to after official working hours, with most doctors and rehabilitation therapists complying with approval stipulations. Yet, the findings also underscore the potential workforce implications of MJH regulation, as many professionals indicated they would leave the public sector if MJH were not permitted. The DCE findings further reinforce this point, showing strong opposition to a complete MJH ban, with professionals requiring substantial salary increases to accept such a measure. Notably, either higher salaries or improved working conditions could enhance retention, even if MJH were prohibited. Additionally, competent facility management and well-resourced clinical environments emerged as crucial determinants of retention under an MJH ban. The preferences for MJH regulatory options were largely similar for doctors and rehabilitation therapists, while nurses were notably less inclined towards part-time positions and overtime, placing greater importance on salary increases and the clinical practice environment compared to doctors and rehabilitation therapists. Despite the variation in preferences among nurses, medical doctors, and rehabilitation therapists, increased salaries, improved working conditions, and competent facility management were important across all three professional groups. Overall, my findings highlight that prioritising supportive working conditions and competent management is crucial for moderating MJH in the public sector.

Previous studies and this PhD study (Chapters 5 & 7) have shown that poor public sector working environments, lack of equipment and other essential resources have pushed public health sector health professionals to seek additional jobs in the private sector [41, 156]. Findings from Chapter 6 confirm that all three professional groups prioritised supportive working environments and competent management, suggesting that enhancing these areas could yield more effective MJH policy outcomes. These findings align with existing literature, which identifies these factors as fundamental to successful MJH regulatory interventions [39]. Health professionals prefer work environments that enable them to carry out their duties effectively, free from unnecessary administrative burdens, and with adequate staffing, resources, and infrastructure (Chapters 5 & 6). The importance of these elements for doctors and nurses is well-documented. For instance, Koussa *et al*'s systematic review [156] of factors influencing medical doctors' choice of workplace highlighted infrastructure and staffing as key factors in medical doctors' workplace choices and Rispel *et al*'s survey [28] among nurses found that a stimulating work environment was a significant reason for nurses' engagement in MJH. Furthermore,

research has shown that restricting MJH without improving public sector conditions can lead to higher attrition of skilled healthcare workers [40, 190].

Given the identified issues of poor management of working hours and weak oversight reported in this study (Chapters 5 & 7), as well as in other LMIC settings [29, 30, 41], the necessity for competent management of health professionals and robust MJH regulatory measures is clear. The PhD findings suggest that, based on health professionals' preferences, efforts to manage MJH policies effectively are likely to fail without supportive working conditions and competent management, potentially exacerbating absenteeism and compromising service delivery. The findings indicate that for MJH policies to be successful, the public health system needs sufficient resources to ensure quality care (Chapter 6). Addressing management weaknesses and improving workplace conditions appear fundamental to both workforce retention and regulatory compliance [41]. However, fiscal constraints in many LMICs pose a significant challenge to resource allocation. In such contexts, prioritising competent leadership in management positions is critical, as strong leadership ensures effective workforce management, strategic policy implementation and the optimisation of resources to meet community health needs [1].

Moreover, the findings (Chapters 5 & 7) highlight how power dynamics between managers and senior health professionals limited the enforcement of accountability measures, a challenge observed in other LMICs [30, 50, 154]. This suggests an urgent need for stronger institutional backing from health ministries to support hospital managers in enforcing regulations without fear of retaliation. Additionally, the study reveals broad professional support for MJH regulation, particularly the restriction of MJH to after official working hours (Chapter 8). Enforcing MJH restrictions after hours serves a dual purpose: protecting patient care and balancing public and private sector responsibilities. Other studies have also found that health professionals favour stricter MJH regulations to safeguard public sector service delivery [51, 103]. Future research, specifically in LMICs could expand on these findings by replicating the DCE study to assess professional preferences for different MJH regulatory models in varied contexts.

Motivations for MJH are widely attributed to financial incentives largely driven by differences between professional expectations and economic realities, specifically in LMICs [15]. Although the study found that nurses did not prefer public-sector jobs with high overtime hours (Chapter 6), qualitative findings indicate a preference for public-sector overtime through private nursing agencies due to frequent delays in public-sector overtime payments (Chapter 5). International case studies provide valuable insights into the role of financial incentives in shaping MJH patterns. Studies suggest that salary increases can reduce MJH engagement among hospital doctors, though the effect varies by speciality and level of care. Askildsen and Holmas' econometric study [191] found that an 11% salary increase in Norway led

to more medical doctors working in public hospitals and a decline in MJH, though it did not affect specialists' decisions to take on additional jobs. Similarly, a qualitative study in Bangladesh [103] found that while many doctors would limit or stop MJH if public sector salaries improved, financial incentives had a stronger impact on primary care doctors than those in higher levels of care. Johannessen and Hagen [34] further illustrated this trend in Norway, reporting a 30% decline in MJH following salary increases and reduced working hours. These findings highlight that while salary adjustments may reduce MJH, their impact depends on factors such as speciality, experience, and healthcare setting. Furthermore, these studies support the notion that a doctor's speciality and experience play a critical role in determining MJH engagement [192], with medical specialists and those in higher levels of care likely having more experience and specialised skills, which could reduce their inclination to reduce or stop MJH. However, in Greece, salary increases for medical doctors had minimal effect on MJH [98]. Similarly, in South Africa, the occupation-specific dispensation policy raised public sector salaries for different health professionals between 2007 and 2009 to improve retention, but its effect on retention and MJH remains unclear due to a lack of evaluation [104, 105]. Moreover, as many governments permit MJH to supplement incomes due to fiscal constraints [12, 15], salary increases are often not a viable option, particularly given the inconclusive evidence of their impact on MJH.

In addition to health professionals' preferences, both our conceptual framework and the findings of this study emphasise that ethical norms influence compliance with regulations. Discussing preferences for regulatory options without considering the role of compliance may overlook key factors that affect the successful implementation of MJH policies. The findings from this study suggest that health professionals who align with professional ethics and perceive the policy as legitimate tend to adhere more closely to MJH regulations (Chapter 7). This highlights that, alongside more traditional regulatory measures, the integration of ethical considerations into regulatory frameworks may influence compliance. Peer influence, statutory bodies, and civil society organisations can reinforce professional norms and contribute to effective regulation [12, 42]. Evidence from HICs demonstrates that social and cultural norms within the medical profession, coupled with peer pressure, can significantly improve adherence to public sector commitments [193], with professional ethics and peer oversight acting as a deterrent to undesirable practices [116]. Furthermore, this aligns with our conceptual framework (Chapter 3) where individuals' ethics and influence from peers shape their decision to comply with regulations [116]. However, in LMICs, where low morale, weak monitoring systems, and ineffective professional bodies limit the efficacy of peer regulation, a greater emphasis on competent management and structured oversight is also necessary [116].

9.2.4. RWOPS implementation and compliance

In this study, key implementation issues with the RWOPS policy in Gauteng and Mpumalanga hospitals included application inefficiencies, approval delays, and inconsistent procedures across provinces

(Chapter 7). In Mpumalanga, approvals took months due to requiring provincial-level approvals, while Gauteng's faster process decentralised approval to the hospital level. Inefficiencies were worsened by reliance on paper-based systems, creating bottlenecks. The lack of understanding of the application process among health professionals and hospital managers in Mpumalanga led to confusion and improper implementation. Weak monitoring mechanisms further hindered implementation and compliance with the policy. These challenges reflect broader issues of policy execution, where administrative inefficiencies and weak monitoring mechanisms hinder compliance. Researchers suggest that successful implementation occurs when local leaders understand and address the specific opportunities and challenges within their context [173, 194, 195]. Mpumalanga's reliance on provincial approvals raises questions about the trade-off between centralised control and efficiency, particularly given Gauteng's comparatively smoother process. The consideration of lower-level approvals in Mpumalanga could improve efficiency [183].

The 2024 DPSA directive notes that all RWOPS applications will now be processed through the existing eDisclosure system [67], signalling a shift towards online processing and potentially improving efficiency by reducing delays associated with paper-based systems. However, its success will depend on whether hospital managers, human resource personnel, and heads of departments receive adequate training to support health professionals in navigating the system at the local level. This underscores the broader challenge of policy implementation - not only must systems be designed for efficiency, but those responsible for executing them must also be adequately prepared to do so [183]. Without proper training, the transition to an online system may fail to resolve the underlying administrative delays.

Beyond application inefficiencies, weak monitoring mechanisms remain a significant barrier. Previous research has noted that MJH restriction regulations impose additional costs, as managers must allocate resources for monitoring compliance [12], an often-overlooked factor [179, 182]. In this study, only one hospital had a functioning biometric clocking system (Chapter 7), underscoring the limitations of current monitoring efforts. Furthermore, while both provinces have developed RWOPS terms of reference in line with the 2024 DPSA directives [67], these terms of reference define the scope and limitations of RWOPS within hospitals, outlining specific rules and conditions under which health professionals may engage in MJH alongside their primary duties. The focus on procedural clarity must be complemented by an assessment of whether hospitals have the necessary resources and infrastructure to enforce compliance effectively [177, 179, 181]. Without adequate investment in monitoring, policy enforcement risks being inconsistent, further eroding legitimacy. A related issue is the persisting lack of clarity regarding what constitutes RWOPS (Chapter 7), despite the detailed 2020 DPSA guidelines [165] outlining expectations for applicants and implementers. Burke *et al*'s implementation framework [183] suggests that ongoing communication is crucial to address this, as it helps clarify expectations, facilitates feedback, and ensures that staff understand the stipulations of the policy, thereby fostering

trust and transparency in its implementation [183]. This underscores the importance of feedback mechanisms for both policy implementers and health professionals. Without such mechanisms to address emerging challenges, compliance is likely to remain inconsistent. Ultimately, my findings underscore that regulatory measures must extend beyond procedural enforcement. Effective implementation requires alignment between resource availability and local management capacity. Provincial health departments play a critical role in this process by ensuring that hospital managers are equipped with the necessary tools and support to enforce the RWOPS policy effectively.

In this study, doctors and therapists supported mandatory RWOPS approval, though nurses did not. All groups agreed that RWOPS should take place outside public sector hours. However, support for restrictions varied. While many medical doctors and rehabilitation therapists obtained approval (Chapter 8), not all agreed with the prescribed restrictions on working hours, nor did all adhere to the RWOPS hour limitations (Chapter 7). Compliance challenges included policy loopholes allowing locum work or businesses without approval and weak monitoring that failed to detect multiple undeclared jobs. Informal arrangements between colleagues enabled professionals to bypass restrictions on RWOPS hours, and some left public sector work early for private practice without consequences (Chapter 7). Similarly, Ashmore and Gilson's qualitative study [94] of medical specialists in South Africa found that despite several instances of RWOPS abuses that constituted fraud under the law, those responsible faced no punishment. In my PhD gaps in oversight and accountability weakened the policy's ability to regulate MJH.

In my study, although health professionals felt obliged to prioritise public sector patients, many left work early once their immediate duties were completed, thereby neglecting patients who might require attention later and shifting their focus to private sector work (Chapter 7). Barr *et al*'s study on professional behaviour [23] highlight the dilemma faced by public servants between prioritising personal interests and fulfilling their obligations to serve the public. The study explores how this conflict leads to corrupt behaviour, such as absenteeism. Furthermore, Barr *et al* [23] argue that the absence of robust enforcement mechanisms or clear consequences allows public servants to act in their own interest, perceiving the minimal risk of detection, which ultimately fosters corrupt behaviour. This aligns with Sutinen and Kuperan's socio-economic theory of regulatory compliance [116], which posits that individuals assess the costs and benefits of compliance based on perceived risks and rewards. In both perspectives, weak enforcement reduces the perceived costs of non-compliance, thereby encouraging behaviour that serves personal interests rather than the public sector patients. This notion is further supported by existing literature, which shows that a lenient work environment and lack of oversight exacerbate the negative consequences of MJH [12, 154]. These include conflicts of interest, unethical behaviour, diminished service quality, and the diversion of resources to the private sector [50]. In the context of this study, weak oversight and accountability within RWOPS resulted in health

professionals leaving early, often leaving junior staff unsupervised and increasing the workload for colleagues (Chapter 7). Additionally, regulatory governance research suggests that insufficient oversight and accountability are contributing factors to corruption in public sector environments. This underscores the necessity of strengthening regulatory mechanisms and improving monitoring to ensure better service delivery and compliance within the health sector [20-23].

According to my findings (Chapters 5 & 7), power imbalances and inconsistent enforcement due to weak management significantly hinder the effective regulation of health professionals under the RWOPS policy. Inconsistent enforcement, particularly the failure to discipline senior professionals, undermines compliance and weakens the policy's ability to regulate MJH. Power imbalances, particularly involving senior specialists, exacerbate these challenges. Although managers have formal authority, senior specialists often hold significant informal power due to their expertise, influence, and the health system's reliance on their skills. In my study, managers were often reluctant to enforce regulations due to fears of resignations or disruption of services. This dynamic weakens managerial authority, discourages junior staff from reporting non-compliance, and ultimately undermines the legitimacy of the policy. In addition, practical barriers to monitoring such as the inability to track entry and exit times due to specialists' resistance to signing time registers and the lack of sophisticated monitoring systems further impede implementation.

Moreover, my research shows that these monitoring challenges and power imbalances stem from the inherent conflict between enforcing rules and retaining senior staff (Chapters 5 & 7). This tension is mirrored in LMICs, where public sector managers often feel pressured to accept MJH performed outside the regulatory framework to retain skilled employees [196]. In South Africa, despite the crucial need for strong strategic leadership, leadership competence gaps persist at all levels of the health system. These gaps, including in strategic, technical, and managerial skills, are compounded by corruption, weaknesses in ethical leadership and accountability contribute to poor care quality [197]. Ferrinho *et al*'s review [50] of MJH indicated that in LMICs, the rigidity of public sector rules pushes many health professionals away from the public health sector. Furthermore, Berman and Cuizon's exploratory study [8] on MH reported that the strict bureaucracy in the public sector where medical specialists have to follow specific tasks and work at set hours limits autonomy and stifles innovation [8], a conflict well explained by Mintzberg's concept [178] of professional bureaucracy. In organisations like hospitals, professionals' authority comes from their expertise, not hierarchical control. In such settings, professionals have considerable autonomy in their work, as their specialised knowledge allows them to make decisions without direct supervision. Mintzberg suggests that professionals are rather governed by ethics and peer oversight [178]. However, this autonomy can clash with the goals of the organisation, which might require more standardised control or coordination across different parts of the organisation. Blaise and Kegels' comparative analysis [198] of health systems using Mintzberg's organisational

models argue differently that in resource-limited settings with varying institutional capacities, direct supervision remains necessary for habitual rule-breakers. However, it should be balanced with strategies that foster individual responsibility and peer accountability. In South Africa, reinforcing hospital monitoring systems and leveraging the roles of professional associations and trade unions promoting professional ethics and norms become crucial. Strengthening managerial capacity through formal or informal training, mentorship, and the exchange of best practices may address some of these management difficulties.

My qualitative findings (Chapter 7) showed that, despite frustrations with RWOPS' requirements, ethical health professionals complied. Quantitative findings (Chapter 8) indicated widespread support for the policy, including stipulations like not working during official hours and obtaining approval. Furthermore, the DCE findings (Chapter 6) showed that health professionals valued competent management that enforce the policy. These findings suggest recognition of the policy's legitimacy. However, this could erode if violations continue. Sutinen and Kuperan [116] argue that enforcement authorities should focus on penalising those individuals who blatantly disregard regulations while allowing minor breaches from those who generally adhere to the regulations [116]. Failing to discipline non-compliant professionals, especially senior health professionals who neglect public sector duties for private gains, reduces support for the policy and undermines its legitimacy. By holding non-compliant professionals accountable, the government can reinforce the importance of ethics and compliance, ensuring that ethical professionals continue supporting the policy and discouraging rule violations. This, in turn, would strengthen policy buy-in and the legitimacy of the RWOPS policy.

9.3. PhD study recommendations

Table 15 presents the recommendations of this PhD study, based on the findings of my research and suggestions from the qualitative interviews and survey. The respective responsibilities of various health policy stakeholders are also marked with an 'X.'

Table 15: PhD Study Recommendations

Recommendations	National government (DoH/ DPSA)	Provincial government/ hospitals	Regulators (HPCSA, SANC)	Professional associations/ health sector unions	Individual health professionals (MD, PN, RT)
1. A national dialogue with relevant stakeholders on MJH and the RWOPS policy	X				
2. RWOPS Policy Review **a.** Dissemination of DPSA directives and guidelines to healthcare professionals and health facility managers to ensure clarity and confirm understanding of roles and responsibilities for implementation and compliance. **b.** Communication and awareness raising campaign to encourage voluntary compliance **c.** Guidelines on progressive discipline for policy transgression **d.** Compliance reporting, monitoring and evaluation **e.** RWOPS policy enforcement	X	X			
3. Meritocratic appointment and capacity building of health service managers	X	X			
4. Positive practice environments to reduce high prevalence of MJH	X	X			
5. Compliance with professional codes of ethics and Employment code of conduct; ensuring awareness of rights and responsibilities	X		X	X	X
6. Review of compensation and incentive structures	X				

Legend: DoH =Department of Health; DPSA- Department of Public Service and Administration; HPCSA: Health Professions Council of South Africa; SANC=South African Nursing Council; MD=medical doctor; PN=professional nurse; RT=rehabilitation therapist:

9.3.1. National dialogue on RWOPS

The National Department of Health (NDoH) and the Department of Public Service and Administration (DPSA) are responsible for the stewardship of the health system and the public service respectively [199]. The WHO underscores the role of government in involving all sectors of society in its stewardship role [199].

This PhD study highlighted the ambiguity expressed by various stakeholders about RWOPS policy which enables MJH. However, the legislative provision on RWOPS should be embraced as an incremental policy change, aimed at gradually improving healthcare sector practices. Hence, the first recommendation of my PhD is that the NDoH and DPSA should jointly initiate, lead and convene a national dialogue with relevant stakeholders on multiple job holding and the RWOPS policy. Such a process should involve all relevant stakeholders, including provincial health departments, the private sector, the regulators of health professionals, representatives of health professionals (statutory bodies, associations, trade unions, special interest groups), different levels of health service managers, including those in charge of clinical departments or wards, and individual medical doctors, professional nurses, and rehabilitation therapists. The latter group should include a selection of those who engage and do not engage in MJH.

The national dialogue/event should focus exclusively on MJH and RWOPS and discuss how to mediate the ethical and professional obligations of health professionals to public sector patients, and their autonomy and desire for additional income. The national dialogue should provide an opportunity for the sharing of empirical research, the experience and perspectives of different stakeholders, best practice examples of MJH management and RWOPS compliance, and map a clear way forward that meets the interests of patients, health professionals and the South African health system.

9.3.2. RWOPS policy review

The national dialogue should be the beginning of the review of existing RWOPS policy directives [65, 67] and guidelines [114]. The NDoH and DPSA should ensure that the directives and guidelines are disseminated to all healthcare professionals and health facility managers. This should be accompanied by relevant orientation, training, and feedback sessions for inputs on the clarity of the guidelines, whether those responsible for implementation and compliance are clear on their roles and responsibilities, as well as inputs on possible revisions of the current guidelines. Existing management meetings and in-service or continuing professional development events for health professionals could be used to raise awareness and provide training. Hospital HR departments should also take an active role in delivering in-service training on conditions of employment, ensuring that these sessions are included in onboarding programmes to reinforce policy awareness from the outset. Additionally, regular

refresher training should be implemented to maintain sustainability, as once-off programmes may have a limited impact when staff leave, or new employees join.

Government should also invest in a dedicated communication and awareness raising campaign to encourage voluntary compliance with the RWOPS policy. For example, there could be a banner on employee electronic payslips that highlights the existence of the updated guidelines, where to find the guidelines (electronically), what constitutes RWOPS, prohibited activities and the importance of compliance.

Provincial health departments and hospitals should streamline application and approval processes to be more efficient, with feedback mechanisms for health professionals [67]. There are already systems in place for rapid feedback via mobile phones (e.g., vaccination status during the COVID-19 pandemic). These could be explored to indicate whether an RWOPS application has been approved by the relevant authority.

Although unauthorised MJH and non-compliance with RWOPS guidelines could constitute misconduct, the current labour relations directives are vague. Hence, there should be explicit guidelines on progressive discipline for policy transgression. The provincial health departments and hospital managers are responsible for compliance reporting, and monitoring. DPSA should make it compulsory for all government entities to report on RWOPS as part of their annual reports, as there is already a detailed template for HR reporting.

These activities should precede more active RWOPS policy enforcement, including disciplinary action and sanction for repeat transgressors.

9.3.3. Meritocratic appointment and capacity building of health service managers

The PhD study found that weak or absent management exacerbated MJH, while the DCE underscored the importance of good management in health professional decisions. In 2024, the Academy of Science of South Africa recommended merit-based appointments and professionalising the civil service [200]. The recommendations include "*supporting managers at every level so that they have the resources, understanding and ability to build teams and attend to the relationships that make complex systems work, focusing on both the people within the health system (providers) as well those whom the health system serve*s" [200]: page 96.

Provincial health departments should build the capacity of existing managers, whether through formal or informal training programmes, mentorship, and sharing both best practices, as well as difficult management problems. Mentorship should incorporate leadership rotations within hospital

departments, allowing emerging leaders to gain hands-on experience in running departments and participating in managerial meetings. To ensure consistency and long-term sustainability, the national government should provide overarching guidance and support, integrating leadership development into broader health system strengthening initiatives while allowing provinces and hospitals to tailor implementation to local needs.

The task of hospital managers is to manage these facilities and all their resources. As there is a Performance Management and Development System (PMDS) in place, this system should be used to measure individual performance and outputs, reward those who exceed performance expectations based on agreed-upon KPI scores and penalise those who blatantly neglect their public sector duties.

9.3.4. Positive practice environments

There is substantial evidence that positive practice environments attract and retain staff, and improve patients' satisfaction, safety and health outcomes [201]. The DCE conducted as part of this PhD highlighted the trade-offs that health professionals were willing to make for positive practice environments (PPEs), which allow for the provision of safe and quality patient care. Key elements of a positive practice environment are a safe work environment, availability of resources (e.g. equipment, medicines) to deliver quality care, professional recognition and empowerment, supportive management practices, and education and information that ensure that health professionals have the opportunities to learn, develop, progress and save lives [201].

Although the 2030 HRH Strategy [4] and the Occupational Health and Safety Act [202] include these provisions for a PPE, their implementation requires substantial investment in management capacity and resources—both of which are often limited in the public health sector. Therefore, prioritising leaders with the capacity to manage resources efficiently is essential for advancing these improvements, which are likely to have a positive effect on the prevalence of MJH.

9.3.5. Compliance with professional codes of ethics and employment code of conduct

Health professionals have the responsibility to comply with their professional Codes of Ethics and the Code of Conduct of the Public Service. However, provincial health departments, hospitals, and managers, in collaboration with statutory bodies, professional associations, and trade unions, should provide in-service training on professional codes of conduct and ethical practices. The HPCSA and SANC already have a set of guidelines on ethics and professional conduct. Therefore, there should be compulsory online continuing professional development (CPD) sessions on ethics and professional conduct that health professionals should attend under their respective jurisdictions. This will foster a culture that values ethical practice and, over time, strengthen professional self-regulation. Such training will also promote accountability and reinforce adherence to the RWOPS policy [116].

Professional associations and trade unions should also embark on a campaign to educate their members on the implications of unauthorised MJH, the importance of adhering to regulations and employment codes of conduct. This would obviate the need to represent their members in disciplinary cases. Similar to the experience in other countries, these structures could develop infographics and/or posters that explain the existing RWOPS policy, the rights and responsibilities of health professionals, the implications of unauthorised RWOPS, and the importance of compliance with directives

9.3.6. Review of compensation and incentive structures

This has been a strategic goal of the Department of Health but has not materialised [4, 105]. This is a long-term goal which would need to review the RWOPS policy in tandem with the occupation-specific dispensation, commuted overtime, and the possibility of options on part-time versus full-time posts.

9.4. Scholarly contribution of the PhD study

The scholarly contribution of my PhD is in the generation of new knowledge, its methodological innovation, and its policy relevance.

9.4.1. Generation of new knowledge

This PhD study has generated five scientific papers on the experiences, extent, contributory factors, and regulation of MJH among public sector medical doctors, professional nurses, and rehabilitation therapists in Gauteng and Mpumalanga provinces. The focus of each article is highlighted below.

Article 1 on the *prevalence, forms and influencing factors* generated new knowledge on the extent, forms, and contributing factors of MJH among medical doctors, professional nurses and rehabilitation therapists in urban (Gauteng) and rural (Mpumalanga) provincial hospitals. The inclusion of rehabilitation therapists was unique, as they have been neglected in the discourse on MJH.

Article 2 focuses on the in-depth interviews on *the experiences of three categories of health professionals who engage in MJH*, provides rich narratives on the varied individual, institutional, and context-specific motivations and reasons for engaging in MJH. Few qualitative studies have explored the MJH experiences of public-sector medical doctors, professional nurses, and rehabilitation therapists simultaneously.

Article 3 focuses on the stated preferences of the three professional groups regarding various MJH regulatory options in the public health sector, making it one of the first MJH experiments in an African setting.

Article 4 on *stakeholder perspectives of the RWOPS policy and its compliance in public sector hospitals* in the two South African provinces generated new knowledge on the ambiguity that exists about the RWOPS policy as an MJH regulatory tool and the intersections with MJH management, ethics and the autonomy and behaviour of health professionals.

Article 5 on the perspectives of doctors, nurses and rehabilitation therapists in Gauteng and Mpumalanga public *hospitals on Remunerative Work outside of the Public Service* provides empirical evidence on self-reported compliance, as well as their opinions on RWOPS approval requirements and restrictions, and the likelihood they would leave the public sector if RWOPS was denied.

9.4.2. Methodological innovation

This PhD sought to analyse MJH and its regulation among public sector medical doctors, professional nurses, and rehabilitation therapists in Gauteng and Mpumalanga provinces. The methodological innovation and contribution of this PhD derive from its comparative nature, the use of various theories and the mixed methods approach that combined in-depth interviews with key informants and health professionals, a large survey among medical doctors, professional nurses and rehabilitation therapists, and conducting a discrete choice experiment. This enabled me to examine MJH from different perspectives and to triangulate the methods and the results. The specific methodological contribution is outlined below.

Comparative analysis

An innovative aspect of this study is its comparative analysis of MJH among three major health professional groups, namely medical doctors, professional nurses, and rehabilitation therapists, within the public sector. This is an approach rarely taken in health workforce research, where the focus is typically on one health professional category. Each of the study components has enabled the comparison across the three groups.

Novel application of various theories

This study makes a novel contribution by integrating multiple theoretical frameworks to examine MJH and its regulation in the South African public health sector. The study draws on an overall health labour market approach, Russo and colleagues' framework on MJH (albeit among medical doctors), Betts' organisational theory on moonlighting, and microeconomic labour theory on moonlighting to explore the health labour market, individual, organisational and social factors influencing the MJH phenomenon among the three professional groups.

This is one of the first studies that have used Sutinen and Kuperan's [116] socio-economic theory of regulatory compliance to explore the implementation and adherence to the RWOPS policy. This is an innovation.

The combination of these theoretical frameworks enabled me to provide a comprehensive perspective on MJH and regulatory compliance in South Africa. This theoretical integration advances the global and national discourse on MJH by offering new insights into MJH practice and regulation among the three professional groups.

Mixed methods approach

Although mixed methods are common, this PhD study used a novel approach by combining in-depth interviews with key informants and health professionals, survey methodology, and the DCE, thereby contributing to the broader literature on MJH and its regulation. DCEs have been applied to MJH studies in high-income countries, but their use in LMICs, specifically in an African context to examine MJH, remains limited. This study is among the first to apply a DCE to investigate MJH policy interventions and to compare stated preferences across three distinct professional groups.

9.4.3. Policy relevance

There is global recognition of the importance of improving the performance of the health workforce. This study provides empirical evidence of the high prevalence of MJH among medical specialists and rehabilitation therapists. A complex combination of financial and non-financial factors drive MJH, which is exacerbated by weak supervision, resource constraints and poor regulatory oversight. Self-reported compliance with RWOPS policy varied among the three professions. Encouragingly, the health professionals supported MJH restrictions, and their preferences suggest trade-offs with positive practice environments and supportive and competent management.

The policy relevance of this PhD research study lies in the evidence it provides on the extent and nature of MJH in the public sector of two provinces, with which to guide the review and revision of the RWOPS policy, and measures to enhance policy implementation and compliance.

9.5. Recommendation for future research

There are several areas for future research, which are briefly outlined below:

- Future research should explore the impact of policies such as RWOPS (or similar regulations) on health professional retention and whether these policies effectively retain health professionals in the public sector. While randomised controlled trials (RCTs) are often

considered the gold standard, they may not always be feasible. Quasi-experimental designs would be an alternative approach to assess the effects of such policies.

- The PhD findings suggest that the high MJH prevalence has potential negative consequences for the health system , health workforce and patients. Further research is needed to determine the consequences of MJH. Qualitative studies and surveys could offer insights into the consequences of MJH, while longitudinal studies could help determine its long-term impacts.
- Estimate the cost of MJH to public hospitals when medical doctors, professional nurses, and rehabilitation therapists engage in unauthorised MJH. One important component would be to calculate the hours lost to public hospitals when health professionals participate in MJH during official working hours.
- Further research on MJH and RWOPS compliance could include all provinces in the country, to enhance generalisability and comparison of the reasons for these differences. Additionally, this study can be conducted in other countries to explore the different factors contributing to compliance with MJH regulation.
- This study measured self-reported compliance with RWOPS provisions, but future research should assess actual compliance to verify the accuracy of self-reported data or to compare the two. This could involve reviewing RWOPS reports, time registers, biometric clocking systems where applicable, and conducting random departmental visits.
- The DCE highlighted the preferences of health professionals, and the trade-offs they were willing to make for positive practice environments. Further research should examine the impact of positive practice environments and competent management on the MJH prevalence. This could be approached through intervention studies, where specific changes are introduced to improve practice environments, or through observational studies that track existing variations.
- The relationship between MJH and overtime among the different health professional categories should be examined. This research would be valuable in understanding how overtime and additional work hours contribute to MJH in various healthcare contexts.

9.6. Conclusion

This study examined multiple job holding and its regulation among three categories of public sector health professionals in two South African provinces. The study generated new knowledge on the extent, forms, and drivers of MJH among public sector health professionals, the RWOPS policy as an MJH regulatory mechanism, and the preferences of health professionals for different MJH regulations.

Health professionals' decisions to engage in MJH are shaped by context-specific factors, including the health labour market, organisational dynamics, individual circumstances, and social factors. Key

lessons from the study include the need for policy revisions that integrate health professionals' preferences for MJH regulation, input from various stakeholders responsible for implementing the policy and addressing reported challenges to improve regulatory compliance, and interventions aimed at optimising the benefits of MJH while minimising the potential negative consequences.

In concert with global priorities, improving the performance of the health workforce in South Africa is essential to optimise their contribution to ongoing universal health coverage reforms. Achieving the global goal of UHC and South Africa's 2030 HRH strategy requires effective MJH regulation that protects the health system, health workforce, and patient service delivery from the potential negative consequences of MJH.

10. REFERENCES:

1. World Health Organization. Global strategy on human resources for health: Workforce 2030. Geneva, Switzerland: World Health Organization, 2016 https://apps.who.int/iris/bitstream/handle/10665/250368/?sequence=1.
2. World Health Organization. Working for Health 2022-2030 Action Plan. Geneva: World Health Organization (WHO); 2022.
3. World Health Organization. The African regional framework for the implementation of the global strategy on human resources for health: workforce 2030. Brazzaville: WHO Regional Office for Africa, 2020 https://iris.who.int/bitstream/handle/10665/332179/9789290234425-eng.pdf?sequence=1&isAllowed=y#:~:text=Its%20objectives%20are%20to%3A%20(a,c)%20Strengthen%20the%20capacity%20of.
4. National Department of Health. 2030 human resources for health strategy: Investing in the health workforce for universal health coverage. Government printers Pretoria; 2020. https://www.spotlightnsp.co.za/wp-content/uploads/2020/08/2030-HRH-strategy-19-3-2020.pdf.
5. Rispel LC, Blaauw D, Ditlopo P, White J. Human Resources for Health and Universal Health Coverage: Progress, Complexities and Contestations In: Rispel LC, Padarath A, editors. South African Health Review 2018. Durban: Health Systems Trust; 2018. p. 13-22.
6. Van Ryneveld M, Schneider H, Lehmann U. Looking back to look forward: a review of human resources for health governance in South Africa from 1994 to 2018. Human Resources for Health. 2020;18(1):92. doi: https://doi.org/10.1186/s12960-020-00536-1.
7. Moghri J, Arab M, Rashidian A, Sari AA. Physician Dual Practice: A Descriptive Mapping Review of Literature. Iranian Journal of Public Health. 2016;45(3):278-88. PubMed PMID: 1778453658; PubMed Central PMCID: PMCPMC4851741.
8. Berman P, Cuizon D. Multiple public-private job-holding of health care providers in developing countries: An exploration of theory and evidence. London: Department for International Development Health Systems Resource Centre, 2004.
9. Hipgrave DB, Hort K. Dual practice by doctors working in South and East Asia: a review of its origins, scope and impact, and the options for regulation. Health policy and planning. 2014;29(6):703-16. doi: 10.1093/heapol/czt053.
10. McPake B, Russo G, Hipgrave D, Hort K, Campbell J. Implications of dual practice for universal health coverage. Bulletin of the World Health Organization. 2016;94(2):142. doi: 10.2471%2FBLT.14.151894.
11. Moghri J, Rashidian A, Mohammad A, Sari A. Implications of dual practice among health workers: a systematic review. Iranian journal of public health. 2017;46(2):153. doi: http://ijph.tums.ac.ir/.
12. García-Prado A, Gonzalez P. Policy and regulatory responses to dual practice in the health sector. Health Policy. 2007;84(2-3):142-52. doi: 10.1016/j.healthpol.2007.03.006.

13. Sousa A, Scheffler RM, Nyoni J, Boerma T. A comprehensive health labour market framework for universal health coverage. Bulletin of the World Health Organization. 2013;91:892-4.
14. Global Health Workforce Alliance. A universal truth: no health without a workforce. World Health Organisation (WHO) Report. 2013:1-104.
15. World Health Organization. Governance of dual practice in the public and private health sectors Geneva, Switzerland: World Health Organization, 2024 https://www.who.int/publications/i/item/9789240096615.
16. Renna F, Oaxaca RL. The economics of dual job holding: A job portfolio model of labor supply. IZA Discussion Paper No 1915. 2006;Institute for the Study of Labor (IZA), Bonn, Germany. doi: https://doi.org/10.2139/ssrn.877897.
17. Dickey HS, Watson V, Zangelidis A. What Triggers Multiple Job-Holding?: A Stated Preference Investigation. Discussion Paper in Economics No 15-4. 2015;Centre for European Labour Market Research, Aberdeen, UK.:https://abdn.pure.elsevier.com/en/publications/what-triggers-multiple-job-holding-a-stated-preference-investigat.
18. Hirsch BT, Husain MM, Winters JV. Multiple job holding, local labor markets, and the business cycle. IZA Journal of Labor Economics. 2016b;5(1):4. doi: https://doi.org/10.1186/s40172-016-0044-x.
19. Lynham J. Principles of Microeconomics: Hawaii Edition: OpenStax Economics, Principles of Economics.OpenStax CNX; 2016. Available from: http://cnx.org/contents/69619d2b-68f0-44b0-b074-a9b2bf90b2c6@11.330.
20. Lewis M, Pettersson Gelander G. Governance in health care delivery: raising performance. World Bank Policy Research Working Paper 5074 The World Bank Development Economics Department and Human Development Department. 2009;(5074).
21. Lewis MA. Tackling healthcare corruption and governance woes in developing countries. Washington, DC.: Center for Global Development.; 2006.
22. Lewis M. Governance and corruption in public health care systems. Center for Global Development working paper 78. Washington, DC. : Centre for Global Development.; 2006.
23. Barr A, Lindelöw M. To Serve the Community or Oneself: The Public Servant's dilemma: . Washington, DC.: World Bank Publications; 2004.
24. Campion ED, Caza BB, Moss SE. Multiple Jobholding: An Integrative Systematic Review and Future Research Agenda. Journal of Management. 2020;46(1):165-91. doi: https://doi.org/10.1177/0149206319882756.
25. World Health Organization. World Health Report 2006: Working together for health. Geneva: World Health Organization (WHO); 2006.
26. High-Level Commission on Health Employment and Economic Growth. Working for health and growth: investing in the health workforce. Report of the High-Level Commission on Health Employment and Economic Growth. Geneva: World Health Organization; 2016.

27. Buchan J, Dhillon IS, Campbell J, editors. Health Employment and Economic Growth: An Evidence Base. Geneva: World Health Organization, Licence: CC BY-NC-SA 3.0 IGO; 2017.
28. Rispel LC, Blaauw D, Chirwa T, de Wet K. Factors influencing agency nursing and moonlighting among nurses in South Africa. Global health action. 2014;7(1):23585. doi: https://doi.org/10.3402/gha.v7.23585.
29. Russo G, McPake B, Fronteira I, Ferrinho P. Negotiating markets for health: an exploration of physicians' engagement in dual practice in three African capital cities. Health Policy and Planning. 2014;29(6):774-83. doi: https://doi.org/10.1093/heapol/czt071.
30. Abera GG, Alemayehu YK, Herrin J. Public-on-private dual practice among physicians in public hospitals of Tigray National Regional State, North Ethiopia: perspectives of physicians, patients and managers. BMC health services research. 2017;17(1):1-8. doi: 10.1186/s12913-017-2701-6.
31. Miotto BA, Guilloux AGA, Cassenote AJF, Mainardi GM, Russo G, Scheffer MC. Physician's sociodemographic profile and distribution across public and private health care: an insight into physicians' dual practice in Brazil. BMC health services research. 2018;18(1):299. doi: https://doi.org/10.1186/s12913-017-2701-6.
32. Bayat M, Shokri A, Khodadost M, Fattahi H, Mirbahaeddin E, Harirchi I, et al. Factors influencing medical specialists' dual practice in the Islamic Republic of Iran. EMHJ. 2018;24(9-2018). doi: https://doi.org/10.26719/2018.24.9.877.
33. Do N, Do YK. Dual practice of public hospital physicians in Vietnam. Health policy and planning. 2018;33(8):898-905.
34. Johannessen K, Hagen TP. Physicians' engagement in dual practices and the effects on labor supply in public hospitals: results from a register-based study. BMC health services research. 2014;14(1):299. doi: 10.1186/1472-6963-14-299.
35. Ashmore J. 'Going private': a qualitative comparison of medical specialists' job satisfaction in the public and private sectors of South Africa. Human Resources for Health. 2013;11(1):1. doi: https://doi.org/10.1186/1478-4491-11-1.
36. Khim K, Goldman LN, Shaw K, Markuns JF, Saphonn V. Assessment of dual practice among physicians in Cambodia. Human Resources for Health. 2020;18(1):1-8. doi: https://doi.org/10.1186/s12960-020-0461-6.
37. González P, Macho-Stadler I. A theoretical approach to dual practice regulations in the health sector. Journal of health economics. 2013;32(1):66-87. doi: 10.1016/j.jhealeco.2012.08.005.
38. Kiwanuka SN, Rutebemberwa E, Nalwadda C, Okui O, Ssengooba F, Kinengyere AA, et al. Interventions to manage dual practice among health workers (Review). Cochrane Database of Systematic Reviews. 2010;(7). doi: 10.1002/14651858.CD008405.pub2.
39. Kiwanuka S, Kinengyere A, Rutebemberwa E, Nalwadda C, Ssengooba F, Olico O, et al. Dual practice regulatory mechanisms in the health sector: a systematic review of approaches and implementation. London: EPPI-Centre. Social Science Research Unit.

http://eppi.ioe.ac.uk/cms/Portals/0/PDF%20reviews%20and%20summaries/Dual%20Practice%202011%20Kiwanuka.pdf: Institute of Education, University of London, 2011.

40. Russo G, Fronteira I, Jesus TS, Buchan J. Understanding nurses' dual practice: A scoping review of what we know and what we still need to ask on nurses holding multiple jobs. Human resources for health. 2018;16(1):14. doi: 10.1186/s12960-018-0276-x.
41. Hoogland R, Hoogland L, Handayani K, Sitaresmi M, Kaspers G, Mostert S. Global Problem of Physician Dual Practices: A Literature Review. Iranian Journal of Public Health. 2022;51(7):1444-60. doi: 10.18502/ijph.v51i7.10079. PubMed PMID: 2688463793.
42. Alaref J, Awwad J, Araujo E, Lemiere C, Hillis SA, Özaltin E. To ban or not to ban? Regulating dual practice in palestine. Health Systems & Reform. 2017;3(1):42-55. doi: https://doi.org/10.1080/23288604.2016.1272980.
43. González P. Physicians' Simultaneous Practice in the Public and Private Sectors. In: Culyer AJ, editor. Encyclopedia of Health Economics: Elsevier; 2014.
44. Conen W, Schulze Buschoff K. Introduction to the special issue: multiple jobholding in Europe. Transfer: European Review of Labour and Research. 2021;27(2):141-7. doi: 10.1177/10242589211022550.
45. Brown TT. Three essays on the labor market for nonphysician clinicians: University of California, Berkeley; 1999.
46. Creegan R, Duffield C, Forrester K. Casualisation of the nursing workforce in Australia: driving forces and implications. Australian Health Review. 2003;26(1):201-8. doi: https://doi.org/10.1071/AH030201.
47. Tailby S. Agency and bank nursing in the UK National Health Service. Work, Employment and Society. 2005;19(2):369-89.
48. Wynton L, Kleebauer A. Poor pay forcing Northern Ireland nurses to moonlight across the UK. Nursing Standard (2014+). 2016;30(20):10. doi: https://doi.org/10.7748/ns.30.20.10.s9.
49. Gillen S. Nurses make ends meet through extra shifts and payday loans. Nursing Standard (through 2013). 2013;28(11):7. doi: https://doi.org/10.7748/ns2013.11.28.11.7.s2.
50. Ferrinho P, Van Lerberghe W, Fronteira I, Hipólito F, Biscaia A. Dual practice in the health sector: review of the evidence. Human resources for health. 2004;2(1):14. doi: 10.1186/1478-4491-2-14.
51. Jumpa M, Jan S, Mills A. The role of regulation in influencing income-generating activities among public sector doctors in Peru. Human resources for health. 2007;5(1):5. doi: 10.1186/1478-4491-5-5.
52. Engelbrecht M, Rau A, Nel P, Wilke M. Emotional well-being and work engagement of nurses who moonlight (dual employment) in private hospitals. International Journal of Nursing Practice. 2020;26(1):1-9. doi: https://doi.org/10.1111/ijn.12783.
53. Gacevic M, Milicevic M, Vasic M, Horozovic V, Milicevic M, Milic N. The relationship between dual practice, intention to work abroad and job satisfaction: A population-based study in the Serbian

public healthcare sector. Health Policy. 2018;122(10):1132-9. doi: https://doi.org/10.1016/j.healthpol.2018.09.004.

54. Coovadia H, Jewkes R, Barron P, Sanders D, McIntyre D. The health and health system of South Africa: historical roots of current public health challenges. The Lancet. 2009;374:817-34. doi: http://thelancet.com.

55. The Presidency SA. Towards a 25 Year Review: 1994-2019. Pretoria: Government Printing Works; 2019.

56. Blecher M, Kollipara A, de Jager P, Zulu N. Health Financing. In: Padarath A, English R, editors. South African Health Review 2011. Durban: Health Systems Trust; 2011. p. 29-48.

57. Republic of South Africa. The Constitution of the Republic of South Africa 1996, Act 108 of 1996. Pretoria: Government Printer, 1996.

58. Rispel LC, Moorman J. Federalism, Interdependence, and the Health Care System in South Africa. In: Marchildon GP, Bossert TJ, editors. Federalism and Decentralization in Health Care: A Decision Space Approach. Toronto: University of Toronto Press; 2018. p. 117-48.

59. Mahlathi P, Dlamini J. Minimum data sets for human resources for health and the surgical workforce in South Africa's health system: a rapid analysis of stock and migration. African Institute of Health and Leadership Development. 2015;2015:1-16. doi: https://www.prographic.com/wp-content/uploads/2016/07/0316-south-africa-case-studies-web.pdf.

60. Department of Health South Africa. White Paper on National Health Insurance. South Africa: Pretoria: 2015. https://www.gov.za/sites/default/files/gcis_document/201512/39506gon1230.pdf 11 December 2015. Report No.: 39506

61. Nkonki L, Bhengu N, Ramokgopa M, Fonn S. The Health Market Inquiry and its potential contribution to improving health systems functioning in South Africa. In: Moeti T, Padarath A, editors. South African Health Review. 2019. Durban: Health Systems Trust; 2019. p. 81-8.

62. Matseke MG. Taking Stock of the Healthcare Workforce in the Public Health Sector of South Africa During Covid-19: Implications for Future Pandemics. Africa Journal of Public Sector Development and Governance. 2023;6(1):59-76. doi: https://doi.org/10.55390/ajpsdg.2023.6.1.5.

63. van Rensburg HCJ. South Africa's protracted struggle for equal distribution and equitable access–still not there. Human resources for health. 2014;12:1-16. doi: https://doi.org/10.1186/1478-4491-12-26.

64. Department of Public Service and Administration. Public Service Amendment Act, No 30 of 2007. Government Printer Pretoria. https://www.dpsa.gov.za/dpsa2g/documents/acts&regulations/PSAB%2030%20OF%202007-Section-by-section-explanation.pdf; 2007.

65. Department of Public Service and Administration. Directive on other remunerative work outside the employee's employment in the relevant department as contemplated in section 30 of the Public Service Act, 1994. 1 November 2016 In: Administration. DoPSa, editor. Republic of South Africa

Department of Public Service and Administration. https://www.surgeon.co.za/wp-content/uploads/2016/12/directive_rwops_30_09_20161-002.pdf; 2016.

66. Taylor A, Kahn D. The RWOPS debate–yes we can! South African Medical Journal. 2014;104(7):475-7. doi: https://doi.org/10.7196/SAMJ.8050.

67. Department of Public Service and Administration. Directive on other remunerative work outside the employee's employment in the relevant department as contemplated in section 30 of the Public Service Act, 1994. 21 February 2024. Republic of South Africa: Department of Public Service and Administration; 2024. Available from: https://www.dpsa.gov.za/dpsa2g/documents/iem/2024/Directive%20on%20Other%20Remunerative%20Work%20Outside%20an%20Employees%20Employment.pdf.

68. Public Service Commission. Remunerative work outside the public service: an investigation undertaken in the Gauteng Provincial Health Sector. Pretoria: Public Service Commission, 2004. Available from: https://www.psc.gov.za/documents/2004/remunerative_woroutside_psc.pdf.

69. Bateman C. RWOPS abuse could cost, or even ruin, offenders. SAMJ: South African Medical Journal. 2013;103(8):506-8. doi: https://doi.org/10.1796/SAMJ.7235.

70. South African Government. Strengthening the South African health system towards an integrated and unified health system, Presidential Health Summit Compact. Pretoria Presidency, 2019.

71. Wishnia J, Strugnell D, Smith A, Ranchod S. The supply of and need for medical specialists in South Africa. Cape Town: precept: 2019. https://percept.co.za/wp-content/uploads/2019/10/The-supply-of-and-need-for-medical-specialists-in-SA-PERCEPT.pdf.

72. World Health Organization. Monitoring human resources for health-related rehabilitation services. Spotlight on health workforce statistics. 2009;7.

73. World Health Organization. Health labour market analysis guidebook. Geneva, Switzerland: World Health Organization, 2021. 9240035540.

74. Soekhai V, de Bekker-Grob EW, Ellis AR, Vass CM. Discrete choice experiments in health economics: past, present and future. Pharmacoeconomics. 2019;37(2):201-26. doi: https://doi.org/10.1007/s40273-018-0734-2.

75. Mandeville KL, Lagarde M, Hanson K. The use of discrete choice experiments to inform health workforce policy: a systematic review. BMC health services research. 2014;14(1):367. doi: 10.1186/1472-6963-14-367.

76. Ryan M, Kolstad J, Rockers P, Dolea C. How to conduct a discrete choice experiment for health workforce recruitment and retention in remote and rural areas: a user guide with case studies. World Health Organization & CapacityPlus: World Bank. 2012. Available from: https://www.capacityplus.org/files/resources/discrete-choice-experiment-user-guide.pdf.

77. Hamandia-Güldenberg A. Multiple job-holding Fact sheet Geneva, Switzerland: International Labour Office. Information Sheet No. WT-19, 2004. https://www.ilo.org/media/314361/download.

78. Ensor T, Serneels P, Lievens T. Public and private practice of health workers. In: Soucat A, Scheffler, R., and Ghebreyesus, T.A. (eds), editor. The labour market for health workers in Africa: A new look at the crisis Washington D.C. : World Bank 2013. p. 191-214. https://books.google.co.za/books?hl=en&lr=&id=ivqdalE5RJoC&oi=fnd&pg=PA191&dq=chapter+11:+public+and+private+practice+health+workers&ots=smUeYGcCxk&sig=yKd0g8GlanW-5KH3M7fN2xzEgx0.
79. Bazyar M, Rashidian A, Jahanmehr N, Behzadi F, Moghri J, Doshmangir L. Prohibiting physicians' dual practice in Iran: Policy options for implementation. 2018;33(3):e711-e20. doi: https://doi.org/10.1002/hpm.2524.
80. Portela LF, Rotenberg L, Waissmann W. Self-reported health and sleep complaints among nursing personnel working under 12 h night and day shifts. Chronobiology International. 2004;21(6):859-70.
81. Monteiro I, de santana Pi Chillida M, Moreno LC. Work ability among nursing personnel in public hospitals and health centers in Campinas–Brazil. Work. 2012;41(Supplement 1):316-9.
82. Serra D, Serneels P, Lindelow M, Montalvo JG. Discovering the real world: health workers' career choices and early work experience in Ethiopia: The World Bank; 2010.
83. Gupta N, Dal Poz MR. Assessment of human resources for health using cross-national comparison of facility surveys in six countries. Human Resources for Health. 2009;7(1):22. doi: https://doi.org/10.1186/1478-4491-7-22.
84. Rispel LC, Blaauw D. The health system consequences of agency nursing and moonlighting in South Africa. Global Health Action. 2015;8(1):26683. doi: 10.3402/gha.v8.26683.
85. Batch M, Windsor C. Nursing casualization and communication: a critical ethnography. Journal of Advanced Nursing. 2015;71(4):870-80.
86. Bayat M, Khalilnejad R, Akbari-Sari A, Harirchi I, Zalani GS, Mirbahaeddin SE, et al. Factors Associated with Dual Practice in Surgery Specialists: Application of Multi-Level Analysis on National Registry Data. Iranian journal of public health. 2019;48(5):882. doi: http://ijph.tums.ac.ir/.
87. Kahn D, Pillay S, Veller M, Panieri E, Westcott M. General surgery in crisis-the critical shortage. South African Journal of Surgery. 2006;44(3):88-94. doi: https://www.ajol.info/index.php/sajs/article/view/34365.
88. Ashmore J. Dual practice and the availability of medical specialists in the public and private sector of South Africa. Cape Town, South Africa. : University of Cape Town. PhD thesis. Available from: https://www.researchgate.net/profile/John-Ashmore/publication/326160419_Dual_practice_and_the_availability_of_medical_specialists_in_the_public_and_private_sector_of_South_Africa/links/5b3bc299aca27207850a60c6/Dual-practice-and-the-availability-of-medical-specialists-in-the-public-and-private-sector-of-South-Africa.pdf; 2012. .
89. Betts SC. The decision to moonlight or quit: incorporating multiple jobholding into a model of turnover. Journal of Organizational Culture, Communications and Conflict. 2006;10(1):63Á78. doi:

https://search.proquest.com/openview/02717b0d7ddf59b536119e2c718779c3/1?pq-origsite=gscholar&cbl=38870.

90. Betts SC. An exploration of multiple jobholding (moonlighting): A multi-level perspective. Journal of Applied Management and Entrepreneurship. 2002;7(3):72-90.

91. Campion ED, Csillag B. Multiple jobholding motivations and experiences: A typology and latent profile analysis. Journal of Applied Psychology. 2022;107(8):1261. doi: 10.1037/apl0000920.

92. Bian Y, Sun Q, Jan S, Yu J, Meng Q. Dual practice by public health providers in Shandong and Sichuan Province, China. London: Health Economics and Financing Programme, London School of Hygiene and Tropical Medicine. 2003. doi: https://assets.publishing.service.gov.uk/media/57a08c11e5274a27b2000f69/WP07_03.pdf.

93. Socha K, Bech M. The relationship between dual practice and physicians' work behaviour in the public hospitals: Results from the Danish survey. Institute of Public Health–Health Economics University of Southern Denmark. 2011. doi: https://www.researchgate.net/profile/Karolina-Socha/publication/228847788_The_relationship_between_dual_practice_and_physicians%27_work_behaviour_in_the_public_hospitals_Results_from_the_Danish_survey/links/544d7a620cf2d6347f45c714/The-relationship-between-dual-practice-and-physicians-work-behaviour-in-the-public-hospitals-Results-from-the-Danish-survey.pdf.

94. Ashmore J, Gilson L. Conceptualizing the impacts of dual practice on the retention of public sector specialists-evidence from South Africa. Human Resources for Health. 2015;13:1-9. doi: 10.1186/1478-4491-13-3.

95. Bayati M, Rashidian A, Zandian H, Alipoori SA. Dual practice and multiple job holding among Iranian general practitioners: rate and effective factors. The International journal of health planning management. 2020;35(3):799-807. doi: https://doi.org/10.1002/hpm.2961.

96. McPake B, Hongoro C, Russo G. Two-tier charging in Maputo Central Hospital: costs, revenues and effects on equity of access to hospital services. BMC Health Services Research. 2011;11:1-8. doi: https://doi.org/10.1186/1472-6963-11-143.

97. Scott CM, Horne TE, Thurston WE. The differential impact of health care privatization on women in Alberta: Prairie Women's Health Centre of Excellence Winnipeg, Manitoba,, Canada; 2000.

98. Mossialos E, Allin S, Davaki K. Analysing the Greek health system: a tale of fragmentation and inertia. Health economics. 2005;14(S1):S151-S68. doi: 10.1002/hec.1033.

99. Bayat M, Salehi ZG, Harirchi I, Shokri A, Mirbahaeddin E, Khalilnezhad R, et al. Extent and nature of dual practice engagement among Iran medical specialists. Human resources for health. 2018;16(1):1-10. doi: https://doi.org/10.1186/s12960-018-0326-4.

100. Eze BS, Jones M, Kyaruzi IS. Estimating the Monetary Value of Hours Lost to the Nigerian Public Healthcare System When Full-Time Government Employee Doctors Engage in Dual Practice. Health. 2023;15(2):215-38. doi: 10.4236/health.2023.152016

101. Fadzil MM, Wan Puteh SE, Aizuddin AN, Ahmed Z, editors. Specialists' dual practice within public hospital setting: evidence from Malaysia. Healthcare; 2022: MDPI.
102. Kayumba K, Ntihabose C, Musange Furere S, Ngabo B, Irakiza P, Rubuga FK, et al. Dual Clinical Practice (DCP) policy to improve the retention of human resources for health in Rwanda: a mid-term review using a cross-sectional and retrospective study design. BMC Health Services Research. 2025;25(1):192. doi: https://doi.org/10.1186/s12913-025-12313-8.
103. Gruen R, Anwar R, Begum T, Killingsworth JR, Normand C. Dual job holding practitioners in Bangladesh: an exploration. Social science & medicine. 2002;54(2):267-79. doi: 10.1016/S0277-9536(01)00026-0.
104. Fisher TSJ. Impact of occupational specific dispensation on the vacancy rate and profile of doctors working at the Dr George Mukhari Hospital. Johannesburg: University of the Witwatersrand; 2013. .
105. Ditlopo P, Blaauw D, Rispel LC, Thomas S, Bidwell P. Policy implementation and financial incentives for nurses in South Africa: a case study on the occupation-specific dispensation. Global health action. 2013;6(1):19289. doi: 10.3402/gha.v6i0.19289.
106. Kuhn M, Nuscheler R. Saving the public from the private? Incentives and outcomes in dual practice. Journal of Public Economic Theory. 2020;22(4):1120-50. doi: 10.1111/jpet.12447.
107. Sæther EM. A discrete choice analysis of Norwegian physicians labour supply and sector choice. Unpublished doctoral dissertation, University of Oslo, Norway. 2003. https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=04c2c1b0a92f072aeb818d89aae53b1a8ec6ded2.
108. Ditlopo P, Blaauw D, Bidwell P, Thomas S. Analyzing the implementation of the rural allowance in hospitals in North West Province, South Africa. Journal of Public Health Policy. 2011;32:S80-S93. doi: 10.1057/jphp.2011.28.
109. Willis-Shattuck M, Bidwell P, Thomas S, Wyness L, Blaauw D, Ditlopo P. Motivation and retention of health workers in developing countries: a systematic review. BMC health services research. 2008;8:1-8. doi: 10.1186/1472-6963-8-247.
110. Prakongsai P. Dual practice among public medical doctors in Thailand. 2003. doi: https://kb.hsri.or.th/dspace/handle/11228/759.
111. Bateman C. RWOPS clamp down-a crisis in the offing. SAMJ: South African Medical Journal. 2013;103(6):361-4. doi: 10.7196/SAMJ.7029.
112. Bateman C. RWOPS abuse - government's had enough : izindaba. South African Medical Journal. 2012;102(12):899-901. doi: 10.10520/EJC128996.
113. Kwinda MA. The ethical and legal considerations on abuse of remunerative work outside public service (RWOPS) by state-employed doctors. Johannesburg: University of the Witwatersrand; 2016. https://wiredspace.wits.ac.za/items/e8d55c18-146c-4c66-bb5b-5f599d0dd9e6.
114. Department of Public Service and Administration. Guide on managing other remunerative work in the public service. Republic of South Africa Department of Public Service and Administration; 2020.

Available from: https://www.dpsa.gov.za/dpsa2g/documents/iem/2020/Guide%20on%20Other%20Remunerative%20Work%20in%20the%20%20Public%20Service.pdf.

115. Malakoane B, Heunis JC, Chikobvu P, Kigozi NG, Kruger WH. Public health system challenges in the Free State, South Africa: A situation appraisal to inform health system strengthening. BMC Health Services Research. 2020;20:1-14. doi: 10.1186/s12913-019-4862-y.
116. Sutinen JG, Kuperan K. A socio-economic theory of regulatory compliance. International Journal of Social Economics. 1999;26(1/2/3):174-93.
117. Bazyar M, Rashidian A, Jahanmehr N, Behzadi F, Moghri J, Doshmangir L. Prohibiting physicians' dual practice in Iran: Policy options for implementation. The International journal of health planning and management. 2018;33(3):e711-e20.
118. Bhengu BR. Exploring the critical care nurses' experiences regarding moonlighting. Curationis. 2001;24(2):48-53. doi: 10.4102/curationis.v24i2.826.
119. Scott A, Holte JH, Witt J. Preferences of physicians for public and private sector work. Human resources for health. 2020;18(1):1-10. doi: 10.1186/s12960-020-00498-4.
120. Pestana J, Frutuoso J, Costa E, Fonseca F. Heterogeneity in physician's job preferences in a dual practice context–Evidence from a DCE. Social Science & Medicine. 2024;343:116551. doi: 10.1016/j.socscimed.2023.116551.
121. Statistics South Africa. Provincial profile: Gauteng Community Survey 2016. South Africa, Pretoria.: Statistics SA., 2018 03-01-09
122. Statistics South Africa. Mid-year population estimates. South Africa, Pretoria.: Statistics South Africa; 2017. https://www.statssa.gov.za/publications/P0302/P03022019.pdf.
123. Mpumalanga Provincial Health. Annual performance plan 2019/2020. South Africa, Nelspruit: Mpumalanga Provincial Health; 2019.
124. Resnik DB, Shamoo AE. The Singapore statement on research integrity. Accountability in Research. 2011;18(2):71-5. doi: https://doi.org/10.1080/08989621.2011.557296.
125. Foster C. Methodological pragmatism in educational research: from qualitative-quantitative to exploratory-confirmatory distinctions. International Journal of Research & Method in Education. 2024;47(1):4-19. doi: https://doi.org/10.1080/1743727X.2023.2210063.
126. Creswell JW, Clark VLP. Designing and conducting mixed methods research. 3rd ed. ed. Thousand Oaks, CA: Sage publications; 2018.
127. Nowell LS, Norris JM, White DE, Moules NJ. Thematic analysis: Striving to meet the trustworthiness criteria. International Journal of Qualitative Methods. 2017;16(1):1609406917733847. doi: 10.1177/1609406917733847.
128. Lincoln YS, Guba EG. Naturalistic inquiry: Sage; 1985.
129. Harris PA, Taylor R, Thielke R, Payne P, Gonzalez N, Conde JG. Research electronic data capture (REDCap) - A metadata-driven methodology and workflow process for providing translational

research informatics support. Journal of Biomedical Informatics. 2009;42(2):377-81. doi: 10.1016/j.jbi.2008.08.010.

130. Cohen L, Manion L, Morrison K. Research methods in education (5th ed.). London: Routledge; 2002.

131. Noble H, Heale R. Triangulation in research, with examples. Royal College of Nursing; 2019. p. 67-8.

132. Denzin NK. The Research Act: A theoretical introduction to sociological methods. 2nd edn ed. New York, NY: McGraw Hill; 1978.

133. Cohen L, Lawrence M, Keith M. Research Methods in Education.(5th ad). New York: Rutledge Flamer. 2000.

134. Wang X, Cheng Z. Cross-sectional studies: strengths, weaknesses, and recommendations. Chest. 2020;158(1):S65-S71. doi: 10.1016/j.chest.2020.03.012.

135. Okafor FC. Addressing the problem of non-response and response Bias. CBN Journal of Applied Statistics. 2010;1(1):91-7. doi: https://hdl.handle.net/10419/142038.

136. Bergen N, Labonté R. "Everything is perfect, and we have no problems": detecting and limiting social desirability bias in qualitative research. Qualitative Health Research. 2020;30(5):783-92. doi: 1049732319889354.

137. International Labour Organization. Non-standard employment around the world: Understanding challenges, shaping prospects. International Labour Organization. Geneva: International Labour Organization; 2016.

138. Gonzalez P. Should physicians' dual practice be limited? An incentive approach. Health economics. 2004;13(6):505-24. doi: 10.1002/hec.890.

139. García-Prado A, González P. Whom do physicians work for? An analysis of dual practice in the health sector. Journal of health politics, policy and law. 2011;36(2):265-94. doi: 10.1215/03616878-1222721.

140. Cheng TC, Joyce CM, Scott A. An empirical analysis of public and private medical practice in Australia. Health Policy. 2013;111(1):43-51. doi: 10.1016/j.healthpol.2013.03.011.

141. Ahmat A, Okoroafor S, Kazanga I, Asamani J, Millogo J, Illou M, et al. The health workforce status in the WHO African Region: findings of a cross-sectional study. 2022;7(Suppl 1):e008317.

142. Hull E. Going up or getting out? Professional insecurity and austerity in the South African health sector. Africa. 2020;90(3):548-67. Epub 2020/05/21. doi: 10.1017/S0001972020000066.

143. Burger R, Louw M, Pegado BBI, van der Berg S. Understanding consumption patterns of the established and emerging South African black middle class. Development Southern Africa. 2015;32(1):41-56. doi: 10.1080/0376835X.2014.976855.

144. National Department of health. National Health Insurance Policy: Towards universal health coverage. Pretoria, Republic of South Africa: National Department of Health (NDoH). 2017;https://www.gov.za/documents/national-health-act-national-health-insurance-policy-towards-universal-health-coverage-30.

145. Phillips G. The Healthcare Sector In South Africa 2022. South Africa: Who owns Whom African Business Information; 2022.
146. Motsosi KS, Rispel LC. Nurses' perceptions of the implementation of occupational specific dispensation at two district hospitals in the Gauteng Province of South Africa. Africa Journal of Nursing and Midwifery. 2012;14(2):130-44. doi: https://hdl.handle.net/10520/EJC137474.
147. George G, Rhodes B. Is there really a pot of gold at the end of the rainbow? Has the Occupational Specific Dispensation, as a mechanism to attract and retain health workers in South Africa, leveled the playing field? BMC Public Health. 2012;12(1):613. doi: 10.1186/1471-2458-12-613.
148. Gauteng Health Head unwavering on the department's position on overtime and RWOPS management [Internet]. Pretoria: South African Government. https://www.gov.za/news/media-statements/gauteng-health-head-unwavering-departments-position-overtime-and-rwops; 2013; 24 April 2013
149. Department of Public Service and Administration. Public Service Regulation, 2016. In: Administration. DoPSa, editor. Republic of South Africa DPSA. https://www.dpsa.gov.za/dpsa2g/documents/acts&regulations/regulations2016/PUBLIC%20service%20regulations%2016%20April%202019.pdf; 2016
150. South African Government. Presidential Health Summit: Strengthening the South African health system towards an integrated and unified health system. Presidential Health Summit Compact; 2019.
151. McPake B, Russo G, Tseng F-M. How do dual practitioners divide their time? The cases of three African capital cities. Social science & medicine. 2014;122:113-21.
152. Statistics South Africa. Investigation into appropriate definitions of urban and rural areas for South Africa: Discussion Document. 2001.
153. Moghri J, Arabloo J, Mohammad Barzegar R, Saadati M, Yousefzadeh N. Current knowledge of physicians' dual practice in Iran: A scoping review and defining the research agenda for achieving universal health coverage. PLoS One. 2022;17(11). doi: https://doi.org/10.1371/journal.pone.0277896. PubMed PMID: 2737709168.
154. Jan S, Bian Y, Jumpa M, Meng Q, Nyazema N, Prakongsai P, et al. Dual job holding by public sector health professionals in highly resource-constrained settings: problem or solution? Bulletin of the World Health Organization. 2005;83:771-6.; PubMed Central PMCID: PMCPMC2626421.
155. Hall E, Erasmus J. Medical practitioners and nurses. Human resources development review 2003: Education, employment and skills in South Africa. 2003. https://www.gtac.gov.za/wp-content/uploads/2022/02/Medical-Practitioners-and-Nurses.pdf:522-53.
156. El Koussa M, Atun R, Bowser D, Kruk M. Factors influencing physicians' choice of workplace: systematic review of drivers of attrition and policy interventions to address them. Journal of global health. 2016;6(2). doi: 10.7189/jogh.06.020403.
157. Matiwane BP, Blaauw D, Rispel LC. Examining the extent, forms and factors influencing multiple job holding among medical doctors, professional nurses and rehabilitation therapists in two South

African provinces: a cross-sectional study. BMJ open. 2023;13(12):e078902. doi: 10.1136/bmjopen-2023-078902.

158. Heponiemi T, Manderbacka K, Vänskä J, Elovainio M. Can organizational justice help the retention of general practitioners? Health policy. 2013;110(1):22-8. doi: 10.1016/j.healthpol.2013.02.001.

159. Blanc F. Tools for effective regulation: is "more" always "better"? European Journal of Risk Regulation. 2018;9(3):465-82.

160. Gao J, Zhao J. Legitimacy versus morality: Why do the Chinese obey the law? Law and Human Behavior. 2018;42(2):167-80. doi: 10.1037/lhb0000271.

161. Levi M, Tyler TR, Sacks A. The reasons for compliance with law. Understanding social action, promoting human rights. 2012:70-99.

162. Sharma S, Rautela S. Employee moonlighting: a review and research agenda. Journal of Management Development. 2024;43(4):491-513. doi: 10.1108/JMD-08-2023-0251.

163. Department of Public Service and Administration. PUBLIC SERVICE ACT, 1994 (Proclamation 103 published in GG 15791 of 3 June 1994) In: Administration DoPSa, editor. Republic of South Africa. : DPSA. https://www.dpsa.gov.za/dpsa2g/documents/acts&regulations/psact1994/PublicServiceAct.pdf 1994.

164. Department of Public Service and Administration. Directive on the form to be used by members of senior management and head of department to disclose their financial interests In: Administration. DoPSa, editor. Republic of South Africa DPSA. https://www.dpsa.gov.za/documents/edisclosure/edislcosure_20_02_2018.pdf; 2018

165. Department of Public Service and Administration. Guide on managing other remunerative work in the public service. In: Administration. DoPSa, editor. Pretoria 2020.

166. Department of Public Service and Administration. Directive of other categories of designated employees to disclose their financial interests and directive form date & financial interests to be declared. . In: Administration. DoPSa, editor. Republic of South Africa Department of Public service and Administration. https://www.dpsa.gov.za/documents/edisclosure/directive%20on%20other%20categories%202021.pdf; 2021.

167. Mahlathi P. Occupational Specific Dispensation for medical and dental practitioners, pharmaceutical and ems personnel. . Departmeent of health https://staticpmgorgza/docs/090818health-editpdf. 2009.

168. Public Service Commission (PSC). Remunerative work outside the public service: An investigation undertaken in the Gauteng Provincial Health sector. Pretoria: PSC, 2007.

169. Goldstein LN. Thieves of the state. SAMJ: South African Medical Journal. 2012;102(9):719. doi: https://doi.org/10.7196/SAMJ.6165.

170. Bateman C. RWOPS - light at the end of a dusty tunnel: izindaba. South African Medical Journal. 2013;103(12):888. doi: 10.10520/EJC145669.

171. Beetham D. The legitimation of power. Atlantic Highlands, NJ: Humanities Press International. 1991.

172. Tyler T. Why people obey the law yale university press new haven. 1990.
173. Ha B, Pham Van T, Mirzoev T. Implementation of health policy on establishment of provincial center of diseases control (CDC) in Vietnam. Risk management and healthcare policy. 2020:915-26. doi: 10.2147/RMHP.S250748
174. Jacobs S, Weiner B, Reeve B, Hofmann D, Christian M, Weinberger M. Determining the predictors of innovation implementation in healthcare: a quantitative analysis of implementation effectiveness. BMC health services research. 2015;15:1-13. doi: 10.1186/s12913-014-0657-3.
175. Humphrey C, Russell J. Motivation and values of hospital consultants in south-east England who work in the national health service and do private practice. Social Science & Medicine. 2004;59(6):1241-50. doi: https://doi.org/10.1016/j.socscimed.2003.12.019.
176. Sunshine J, Tyler T. The role of procedural justice and legitimacy in shaping public support for policing. Law & society review. 2003;37(3):513-47. doi: https://doi.org/10.1111/1540-5893.3703002.
177. Wardhani V, Utarini A, van Dijk JP, Post D, Groothoff JW. Determinants of quality management systems implementation in hospitals. Health policy. 2009;89(3):239-51. doi: 10.1016/j.healthpol.2008.06.008.
178. Mintzberg H. Structure in 5's: A Synthesis of the Research on Organization Design. Management science. 1980;26(3):322-41. doi: https://www.jstor.org/stable/2630506.
179. Havers SM, Russo PL, Page K, Wilson A, Hall L. Clinician perspectives of policy implementation: a qualitative study of the implementation of a national infection prevention policy in Australian hospitals. American Journal of Infection Control. 2019;47(4):366-70. doi: https://doi.org/10.1016/j.ajic.2018.09.029.
180. Havers SM, Martin E, Wilson A, Hall L. Implementation of government-directed policy in the hospital setting: a modified Delphi study. Health Research Policy and Systems. 2019;17:1-10. doi: https://doi.org/10.1186/s12961-019-0500-8.
181. Dieleman M, Shaw D, Zwanikken P. Improving the implementation of health workforce policies through governance: a review of case studies. Human resources for health. 2011;9:1-10. doi: 10.1186/1478-4491-9-10.
182. Agyepong I, Nagai R. "We charge them; otherwise we cannot run the hospital" front line workers, clients and health financing policy implementation gaps in Ghana. Health policy. 2011;99(3):226-33. doi: 10.1016/j.healthpol.2010.09.018.
183. Burke K, Morris K, McGarrigle L. An introductory guide to implementation: Terms, concepts and frameworks. Centre for Effective Services 2012 August 2012. Report No.
184. Stewart D. International Nurses Day 2024: the economic power of care. Geneva, Switzerland ICN-International Council of Nurses 2024.
185. Vleminckx S, Sevenans A, Bouchatta M, Verbeeck I, Franck E, Haegdorens F. Multiple job holding and its influencing factors among Belgian nurses: A cross-sectional study. Health Policy. 2025;155:105288. doi: https://doi.org/10.1016/j.healthpol.2025.105288.

186. Bayati M, Rashidian A. Target income and its determinants for general physicians: an instrumental variables approach. International Journal of Healthcare Management. 2018;11(3):260-8. doi: https://doi.org/10.1080/20479700.2017.1389477.
187. Sommersguter-Reichmann M, Stepan A. Hospital physician payment mechanisms in Austria: do they provide gateways to institutional corruption? Health economics review. 2017;7:1-13. doi: https://doi.org/10.1186/s13561-017-0148-4.
188. Chervenak F, McCullough L. The moral foundation of medical leadership: the professional virtues of the physician as fiduciary of the patient. American journal of obstetrics and gynecology. 2001;184(5):875-80. doi: https://doi.org/10.1067/mob.2001.113854.
189. Wolfson M, Mathieu J. Sprinting to the finish: Toward a theory of Human Capital Resource Complementarity. Journal of Applied Psychology. 2018;103(11):1165. doi: https://doi.org/10.1037/apl0000323.
190. Dolado JJ, Felgueroso F. Occupational mismatch and moonlighting of Spanish physicians: Do couples matter? 2007. doi: https://e-archivo.uc3m.es/bitstreams/360c5abd-dd03-48bb-ba39-e48cce6a248d/download.
191. Askildsen JE, Holmås TH. Wages and work conditions as determinants for physicians' work decisions. Working Paper Series 2006.
192. Koelewijn WT, Ehrenhard ML, Groen AJ, van Harten WH. Exploring personal interests of physicians in hospitals and specialty clinics. Social science & medicine. 2014;100:93-8. doi: https://doi.org/10.1016/j.socscimed.2013.10.038.
193. Encinosa III WE, Gaynor M, Rebitzer JB. The sociology of groups and the economics of incentives: Theory and evidence on compensation systems. Journal of Economic Behavior & Organization. 2007;62(2):187-214. doi: 10.1016/j.jebo.2006.01.001.
194. Weiner B, Belden C, Bergmire D, Johnston M. The meaning and measurement of implementation climate. Implementation Science. 2011;6:1-12. doi: 10.1186/1748-5908-6-78.
195. Lê G, Thu Thi Bui H, Mirzoev T, Thanh Nguyen H. Negotiating compliance: the case of autonomous hospitals in Vietnam. Development Policy Review. 2015;33(3):373-90. doi: 10.1111/dpr.12112.
196. Ferrinho P, Omar MC, de Jesus Fernandes M, Blaise P, Bugalho AM, Van Lerberghe W. Pilfering for survival: how health workers use access to drugs as a coping strategy. Human Resources for Health. 2004;2(1):4. doi: https://doi.org/10.1186/1478-4491-2-4.
197. South African Lancet National Commission. Confronting the right to ethical and accountable quality health care in South Africa: A consensus report. Pretoria, South Africa: National Department of Health; 2019.
198. Blaise P, Kegels G. A realistic approach to the evaluation of the quality management movement in health care systems: a comparison between European and African contexts based on Mintzberg's organizational models. The International journal of health planning and management. 2004;19(4):337-64. doi: https://doi.org/10.1002/hpm.769.

199. World Health Organization. World Health Report 2000: Health systems: improving performance. Geneva: World Health Organization, 2000.
200. Academy of Science of South Africa. Achieving Good Governance and Management in the South African Health System. Pretoria: ASSAf=Academy of Science of South Africa; 2024.
201. World Health Professions Alliance. Stand up for Positive Practice Environments. Geneva: World Health Professions Alliance, 2023.
202. South African Government. Occupational Health and Safety Act, 1993. Cape Town, South Africa: Government Gazette; 1993. p. https://www.gov.za/sites/default/files/gcis_document/201409/act85of1993.pdf.

11. ANNEXURES

Annexure 1: Ethical clearance certificate

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)

Office of the Deputy Vice-Chancellor (Research and Innovation)

TO: Ms BP Matiwane
School of Public Health
Medical School
University

E-mail: preshie8@yahoo.com

CC: Supervisor: Professor L Rispel and Dr D Blaauw
<Laetitia.Rispel@wits.ac.za>
and <HREC-Medical Research Office@wits.ac.za>

FROM: Mr Iain Burns
Human Research Ethics Committee (Medical)
Tel: 011 717 1252

E-mail: Iain.Burns@wits.ac.za

DATE: 2021/07/21

REF: R14/49

PROTOCOL NO: **M210262** (This is your ethics application reference number. Please quote it in all enquiries, oral or written, relating to this study.)

PROJECT TITLE: *Multiple job holding among public sector medical doctors, professional nurses and rehabilitation therapists in Gauteng and Mpumalanga*

Please find attached the Clearance Certificate for the above project. I hope it goes well and that an article in a recognized publication comes out of it. This will reflect well on your professional standing and contribute to Government funding of the University.

MSWorks2000/Iain0007/Clearscan.wps

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

R49 Ms BP Matiwane

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)
CLEARANCE CERTIFICATE NO. M210262

NAME: (Principal Investigator)	Ms BP Matiwane
DEPARTMENT:	School of Public Health Medical School University
PROJECT TITLE:	*Multiple job holding among public sector medical doctors, professional nurses and rehabilitation therapists in Gauteng and Mpumalanga*
DATE CONSIDERED:	2021/02/26
DECISION:	Approved unconditionally
CONDITIONS:	This approval applies only to the study sites listed in Annex 1 attached Further sites may be added on presentation of evidence of management approval to the HREC (Med)
SUPERVISOR:	Professor L Rispel and Dr D Blaauw
APPROVED BY:	Dr CB Penny, Chairperson, HREC (Medical)
DATE OF APPROVAL:	2021/07/21

This Clearance Certificate is valid for 5 years from the date of approval. An extension may be applied for.

DECLARATION OF INVESTIGATORS

To be completed in duplicate and **ONE COPY** returned to the Research Office secretariat on the 3rd floor, Phillip Tobias Building, Parktown, University of the Witwatersrand, Johannesburg.

I/we fully understand the conditions under which I am/we are authorized to carry out the above-mentioned research and I/we undertake to ensure compliance with these conditions. Should any departure be contemplated from the research protocol as approved, I/we undertake to submit details to the Committee. **I agree to submit a yearly progress report**. When a funder requires annual re-certification, the application date will be one year after the date when the study was initially reviewed. In this case, the study was initially reviewed in **February** and therefore reports and re-certification will be due in the month of **February** each year. Unreported changes to the study may invalidate the clearance given by the HREC (Medical).

Signature of Principal Investigator _____ Date _____

Annex 1

Protocol No. M210262 – Ms P Matiwane

Study sites approved under this Clearance Certificate

Study site Mpumalanga Province	Date of HREC (Med) Approval
Amajuba Memorial Hospital	2021/07/21
Barberton Hospital	2021/07/21
Bernice Samuels Hospital	2021/07/21
Bethal Hospital	2021/07/21
Carolina Hospital	2021/07/21
Elsie Ballot Hospital	2021/07/21
Embhuleni Hospital	2021/07/21
Ermelo Hospital	2021/07/21
Evander Hospital	2021/07/21
HA Grove Hospital	2021/07/21
Impungwe Hospital	2021/07/21
KwaMhlanga Hospital	2021/07/21
Lydenburg Hospital	2021/07/21
Mapulaneng Hospital	2021/07/21
Matibidi Hospital	2021/07/21
Matikwana Hospital	2021/07/21
Middelburg Hospital	2021/07/21
Mmametlhake Hospital	2021/07/21
Piet Retief Hospital	2021/07/21
Rob Ferreira Hospital	2021/07/21
Sabie Hospital	2021/07/21
Shongwe Hospital	2021/07/21
Standerton Hospital	2021/07/21
Themba Hospital	2021/07/21
Tintswalo Hospital	2021/07/21
Tonga Hospital	2021/07/21
Waterval Boven Hospital	2021/07/21
Witbank Hospital	2021/07/21

Protocol No. M210262 Ms P Matiwane

Approved study site

Gauteng Province	Date of HREC (Med) Approval
Bertha Gxowa Hospital	2021/08/26
Bheki Mlangeni District Hospital	2021/07/21
Bronkhorstspruit Hospital	2021/07/21
Chris Hani Baragwanath Hospital	2021/07/21
Charlotte Maxeke Johannesburg Academic Hospital	2021/08/26
Dr George Mukhari Hospital	2021/07/21
Dr Yusuf Dadoo Hospital	2021/07/21
Edenvale Hospital	2021/07/21
Far East Rand Hospital	2021/07/21
Heidelberg Hospital	2020/08/26
Helen Joseph Hospital	2021/07/21
Jubilee Hospital	2021/07/21
Kalafong Hospital	2021/07/21
Kopanong Hospital	2021/08/26
Leratong Hospital	2021/08/10
Mamelodi Hospital	2021/07/21
Odi Hospital	2021/07/21
Pholosong Hospital	2021/07/22
Pretoria West Hospital	2021/07/21
Rahima Moosa Mother and Child Hospital	2021/08/26
Sebokeng Hospital	2021/08/26
South Rand Hospital	2021/07/21
Steve Biko Academic Hospital	2021/07/21
Tambo Memorial Hospital	2021/07/21
Tembisa Hospital	2021/07/21
Thelle Mogoerane Regional Hospital	2021/07/21
Tshwane District Hospital	2021/07/21

CB Penny

Dr CB Penny
Chair: HREC (Medical)
University of the Witwatersrand, Johannesburg

Date: 2021/08/26

Annexure 2: Ethical approval from health facilities in Gauteng

GAUTENG PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

Enquiries: Ms. N. Tuswa
Tel: 0169506255
Email: Nomonde.Tuswa@gauteng.gov.za

TO : **MS. BUSISIWE MATIWANE**
WITS

FROM : **MS MA MADOLO**
ACTING CHIEF DIRECTOR
SEDIBENG DISTRICT HEALTH SERVICES

DATE : **16 SEPTEMBER 2021**

SUBJECT : **MULTIPLE JOB HOLDING AMONG PUBLIC SECTOR MEDICAL DOCTORS, PROFFESIONAL NURSES AND REHABILITATION THERAPISTS IN GAUTENG AND MPUMALANGA**

Please be informed that permission has been granted for you to carry out the above-mentioned research at Sedibeng District. It is noted that you have already obtained Provincial Ethics Committee as well as University of Witwatersrand Research Clearance Certificate.

Kindly note that a copy of the report on the findings (especially) that concerns Sedibeng District should be submitted to the Chief Director's office at the completion of the study.

This permission is also subject to the conditions stated in the protocol and any change in design and methodology must be communicated to the Chief Director.

We wish you success in your research endeavours.

APPROVED / NOT APPROVED / APPROVED AS AMENDED

PROF O.B. OMOLE
CHAIRPERSON: SEDIBENG RESEACH COMMITTEE

DATE: 17/09/2021

RESEARCH PROPOSAL DETAILS: GP_202104_019

GAUTENG PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

Enquiries: Dr. Manei Letebele-Hartell
Tel: +27 12 451 9036
E-mail: Troy.Mashabela@gauteng.gov.za

TSHWANE RESEARCH COMMITTEE: CLEARANCE CERTIFICATE

DATE ISSUED: 14/06/2021
PROJECT NUMBER: 30/2021
NHRD REFERENCE NUMBER: GP_202104_019

TOPIC: Multiple job holding among public sector medical doctors, professional nurses and rehabilitation therapists in Gauteng and Mpumalanga

Name of the Lead Researcher:	Ms Busisiwe Matiwane
Name of the Supervisor:	Professor Laetitia Rispel Dr Duane Blaauw
Facilities:	Jubilee Hospital ODI District Hospital Mamelodi Hospital Bronkhorstspruit Hospital Tshwane District Hospital Pretoria West Hospiotal
Name of the Department:	University of the Witwatersrand

NB: THIS OFFICE REQUEST A FULL REPORT ON THE OUTCOME OF THE RESEARCH DONE AND

NOTE THAT RESUBMISSION OF THE PROTOCOL BY RESEARCHER(S) IS REQUIRED IF THERE IS DEPARTURE FROM THE PROTOCOL PROCEDURES AS APPROVED BY THE COMMITTEE.

DECISION OF THE COMMITTEE: APPROVED

.....
Dr. Mpho Moshime-Shabangu
Deputy Chairperson: Tshwane Research Committee
Date: 14/06/2021

.....
Prof. JV Ndimande
Acting Chief Director: Tshwane District Health
Date: 18/06/2021

GAUTENG PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

CHARLOTTE MAXEKE JOHANNESBURG ACADEMIC HOSPITAL (CMJAH)
OFFICE OF THE SENIOR CLINICAL MANAGER

Enquiries: *Ms. TT Mahlangu*
Email: Thandi.Mahlangu4@gauteng.gov.za
Tel: *011 488 3365*
Ref: *1/7/2*
Date: 02 September 2021

GP_202104_019

To: Ms. Busisiwe Matiwane

RE: FINAL APPROVAL OF STUDY

TITLE: STUDY ON MULTIPLE JOB HOLDING AMONG PUBLIC SECTOR MEDICAL DOCTORS, PROFESSIONAL NURSES AND REHABILITATION THERAPISTS IN GAUTENG AND MPUMALANGA: AMENDED SAMPLING STRATEGY

Permission is granted for you to conduct the above-mentioned study as described in your request provided:

1. Charlotte Maxeke Johannesburg Academic Hospital will not in any way incur or inherit costs as a result of the said study.
2. Your study shall not disrupt services at the study sites.
3. Strict confidentiality shall always be observed.
4. Informed consent shall be solicited from patients participating in your study.

Please liaise with the HOD and Unit Manager or Sister in charge to agree on the dates and time that would suit all parties.

Kindly forward this office with the results of your study on completion of the research.

Supported/Not Supported
Signed by:Jayshina Punwasi
Signed at:2021-09-02 17:13:01 +02:00
Reason:Witnessing Jayshina Punwasi

Dr J. Punwasi
Clinical Director

Approved/Not Approved
Signed by:Gladys Magugudi Bogoshi
Signed at:2021-09-02 17:54:39 +02:00
Reason:Witnessing Gladys Magugudi Bo

Ms. G Bogoshi
Chief Executive Officer

GAUTENG PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

Dr. George Mukhari Academic Hospital

Office of the Director Clinical Services
Enquiries : Dr. C Holm
Tel : (012) 529 3691
Fax : (012) 560 0099
Email:Christene.Holm @gauteng.go.za
keitumetse.mongale@gauteng.gov.za

To Ms B Matiwane
Faculty of Health Science
University of Witwatersrand

Date :11 May 2021

PERMISSION TO CONDUCT RESEARCH:GP_202104_019

The Dr. George Mukhari Academic Hospital hereby grants you permission to conduct research on "Multiple job holding among public sector medical doctors, professional nurses and rehabilitation therapists in Gauteng and Mpumalanga " at Dr George Mukhari Academic Hospital.

This permission is granted subject to the following conditions:

- ☑ That you obtain Ethical Clearance from the Human Research Ethics Committee of the relevant University
- ☑ That the Hospital incurs no cost in the course of your research
- ☑ That access to the staff and patients at the Dr George Mukhari Hospital will not interrupt the daily provision of services.
- ☑ That prior to conducting the research you will liaise with the supervisors of the relevant sections to introduce yourself (with this letter) and to make arrangements with them in a manner that is convenient to the sections.
- ☑ Formal written feedback on research outcomes must be given to the Director: Clinical Services
- ☑ Permission for publication of research must be obtained from the Chief Executive Officer

Yours sincerely

DR. C. HOLM
DIRECTOR CLINICAL SERVICES
DATE: 11/5/21

GAUTENG PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

Joburg

Research Committee of
Johannesburg Health District

Enquiries: Ms. Busisiwe Sikhosana
Tel: 011 694 3909
Email :Busisiwe.Sikhosana@gauteng.gov.za
Hillbrow CHC: Administration Building,
Cnr Smith Str. & Klein Street
Private Bag X21, Johannesburg,
South Africa, 2017

20th May 2021

5 Bayside Road

Erasmus Park
Pretoria
0187

Email: busisiwe.matiwane@wits.ac.za

Dear: Ms Busisiwe Matiwane

TITLE: ***Multiple job holding among public sector medical doctors, professional nurses and rehabilitation therapists in Gauteng and Mpumalanga***

DRC Ref: 2021-04-005

NHRD Ref no: GP_202104_019

OFFICIAL APPROVAL

The Johannesburg Health District Research Committee (DRC) has reviewed your application. This letter serves as approval to access the Districts Health facilities (mentioned below) for the above research.

The following conditions must be observed:

- The facilities in which the research will be conducted are: EDENVALE HOSPITAL, SOUTH RAND HOSPITAL, BHEKIZIZWE MLANGAENI HOSPITAL
- These facilities will be visited from: 20/05/2021 to 20/05/2022
- Participants' rights and confidentiality will be maintained all the time.
- No resources (Financial, material and human resources) from the above facilities will be used for the study. Neither the District nor the facility will incur any additional cost for this study.
- The study will comply with Publicly Financed Research and Development Act, 2008 (Act 51 of 2008) and its related Regulations.
- You will submit a copy (electronic and hard copy) of your final report. In addition, you will submit an annual progress report to the District Research Committee.

- Your supervisor and University of The Witwatersrand will ensure that these reports are being submitted timeously to the District Research Committee.
- The District must be acknowledged in all the reports/publications generated from the research and a copy of these reports/publications must be submitted to the District Research Committee.
- You will liaise with the manager/s before initiating the study.

Contact	Sub District	Sub District Manager/ Area Manager	Contact No.	Cell phone
	ABCEF	Ms Lombuso Matlala	011 440 1259	082 307 0267
	D	Ms Maria Mazibuko	011 674 1200	082 781 9919
	G	Mr Peter Mathole	011 213 9603	072 483 6839
	CoJ A	Ms Nelly Shongwe	011 237 8010	082 467 9276
	CoJ B	Ms Zanozuko Mbane	011 718 9656	082 551 5804
	CoJ C	Mr Tebogo Motsepe	011 761 0200	084 655 5420
	CoJ D	Ms Busi Phiri	011 986 0164	082 467 9316
	CoJ E	Mr Vusi Mazibuko	011 582 1504	082 464 9547
	CoJ F	Mr M Monyamane	011 681 8130	082 467 9423
	CoJ G	Ms Olga Kruger	011 211 8936	083 286 0388
X	Edenvale	Mr Z G Zitha	011 321 6228	082 749 3123
X	Southrand	Dr N Maleka	011 681 2002	071 872 6649
X	Bheki Mlangeni	Ms M Makhetha	011 241 5792	079 885 1668

We reserve our right to withdraw our approval, if you breach any of the conditions mentioned above. Please feel free to contact us, if you have any further queries.

On behalf of the District Research Committee, we would like to thank you for choosing our District to conduct such an important study.

Regards,

Prof S. Moosa
Chairperson: District Research Committee
Johannesburg Health District
Date: 21st May 2021

Mrs M.L Morewane
Chief Director
Johannesburg Health District
Date: 24/05/2021

Dr Baski Desai
Executive Director (Acting)
City of Johannesburg
Date: 25/5/2021

GAUTENG PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

Joburg
a world class African city

Research Committee of Johannesburg Health District

Enquiries: Prof S. Moosa | 0824466825 (WhatsApp) | shabir@profmoosa.com

DATE: 24th March 2022

ATT: Ms Busisiwe Matiwane

EMAIL: busisiwe.matiwane@wits.ac.za

Dear Sir/Madam

STUDY TITLE: Multiple job holding among public sector medical doctors, professional nurses and rehabilitation therapists in Gauteng and Mpumalanga

NHRD REF. NO.: GP_202104_019

OFFICIAL APPROVAL EXTENSION

The District Research Committee has reviewed your application. This letter serves as an extension of the approval for this study.

The following conditions must be observed:

- The facilities in which the research will be conducted are listed below
- These facilities will be visited from: **2022/03/24 to 2026/07/20**
- Participants' rights and confidentiality will be maintained all the time.
- Neither the District nor the facility will incur any additional cost for this study.
- No resources (Financial, material and human resources) from the above facilities will be used for the study.
- The study will comply with Publicly Financed Research and Development Act, 2008 (Act 51 of 2008) and its related Regulations.
- You will submit a copy (electronic and hard copy) of your final report. In addition, you will submit an annual progress report to the District Research Committee.
- If this is academic research then your supervisor and the University will ensure that these reports are being submitted timeously to the District Research Committee.
- The District must be acknowledged in all the reports/publications generated from the research and a copy of these reports/publications must be submitted to the District Research Committee.
- You will liaise with the manager/s listed below as relevant before initiating the study.

We reserve our right to withdraw our approval, if you breach any of the conditions mentioned above. Please feel free to contact us, if you have any further queries.

On behalf of the District Research Committee, we would like to thank you for choosing our District to conduct such an important study.

Regards,

Prof S. Moosa
Chairperson: District Research Committee
Johannesburg Health District
As delegated by Mrs M.L. Morewane, Chief Director, Johannesburg Health District, and Mr. Frans Moseane, Acting ED Health, City of Johannesburg
Date: 24th March 2022

List of Facilities Approved

- **Edenvale Hospital**
- **South Rand Hospital**
- **Bhekizizwe Mlangeni Hospital**

List of Managers

Sub District/ Hospital	Sub District Manager/ Area Manager	Contact No.	Cell phone	Email
ABCEF	Ms Lombuso Matlala	011 440 1259	082 307 0267	Lombuso.Matlala@gauteng.gov.za
D	Ms Maria Mazibuko	011 674 1200	082 781 9919	Maria.Mazibuko@gauteng.gov.za
G	Mr Peter Mathole	011 213 9603	072 483 6839	Peter.Mathole@gauteng.gov.za
CoJ A	Ms Nelly Shongwe	011 237 8010	082 467 9276	nellys@joburg.org.za
CoJ B	Ms Zanozuko Mbane	011 718 9656	082 551 5804	zanozukom@joburg.org.za
CoJ C	Mr Tebogo Motsepe	011 761 0200	084 655 5420	TebogoMot@joburg.org.za
CoJ D	Ms Busi Phiri	011 986 0164	082 467 9386	busip@joburg.org.za
CoJ E	Mr Vusi Mazibuko	011 582 1504	082 464 9547	VusiM@joburg.org.za

CoJ F	Mr M Monyamane	011 681 8130	082 467 9423	mathibem@joburg.org.za
CoJ G	Ms Olga Kruger	011 211 8936	083 286 0388	olgak@joburg.org.za
Southrand Hospital	Dr N. Maleka	011 681 2002	071 872 6649	Nobantu.Maleka@gauteng.gov.za
Bheki Mlangeni Hospital	Mrs MC Makhetha	011 241 5792	082 768 1069	Makabedi.Makhetha@gauteng.gov.za
Edenvale Hospital	Dr. ZG Zitha	011 321 6157	082 749 3123	Zakhelegoodman.Zitha@gauteng.gov.za

GAUTENG PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

Gauteng Department of Health
Helen Joseph Hospital
Enquiries: Dr. R. Ncha
Chief Executive Officer
Tel :(011) 489-0306/1087
Fax :(011) 726-5425
E mail: Relebohile.Ncha@gauteng.gov.za
Date: 2 August 2021

Dear Busisiwe Matiwane

STUDY: Multiple job holding among public sector Medical doctors, Professionals Nurses and Rehabilitation therapist in Gauteng and Mpumalanga

RESEARCHERS: Busisiwe Matiwane

GP_202104_019

The above the study was discussed at the Research Committee meeting. We recommend that permission be granted for Helen Joseph Hospital to be used as a site for the above research,
The researcher is expected to the following:

- Upon completion of the study, copy thereof should be submitted to Helen Joseph Hospital.
- It is the researcher's duty to collect the data from the relevant department after the Research Committee approved the study.

Thank you

Dr M.D Mukansi
Helen Joseph Hospital
Research Chairperson
DATE:

Approved

Dr. R. Ncha
Helen Joseph Hospital
CHIEF EXECUTIVE OFFICER
DATE: 16/8/2021

GAUTENG PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

KALAFONG HOSPITAL
PRIVATE BAG X396
PRETORIA
0001

ENQUIRIES : **MS PM MONYEPAO**
TEL : **012 318 6995**
EMAIL : **Patricia.Monyepao@gauteng.gov.za**
REF : **KPTH 21/2021**

TO: MS BP MATIWANE

RE: CONDITIONAL PERMISSION TO CONDUCT RESEARCH

TITLE: MULTIPLE JOB HOLDING AMONG PUBLIC SECTOR MEDICAL DOCTORS, PROFESSIONAL NURSES AND REHABILITATION THERAPISTS IN GAUTENG AND MPULANGA.

Conditional permission is hereby granted for the research to be conducted at **Kalafong Provincial Tertiary Hospital**. Please note that full approval will be granted on receipt of Ethics approval.

This is done in accordance to the "Promotion of Access to Information Act. No 2 of 2000".

Please note that in addition to receiving approval from the hospital research committee, you are still required to seek permission from the relevant departments. You are obliged to inform this committee in writing of any amendments made to this protocol. Importantly, you require full approval (not conditional approval) before data collection can commence.

Furthermore, collecting of data and consent for participation remains the responsibility of the researcher.

You are also required to submit your final report or summary of your findings and recommendations to the office of the Chief Executive Officer.

Kind regards

DR K.M HTWE
MEDICAL MANAGER
DATE: 23/07/2021

GAUTENG PROVINCIAL GOVERNMENT
KALAFONG HOSPITAL
29 JUL 2021
PRIVATE BAG / PRIVAATSAK X396 PRETORIA 0001
SUPERINTENDENT'S OFFICE

Ethics approval submitted: **YES** **NO**

Approved.

DR K.M HTWE
MEDICAL MANAGER
DATE: 23/07/2021

GAUTENG PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

OFFICE OF THE CEO
Mr Z K O Ndabula

Tambo Memorial Hospital
: (011) 898-8317
: (011) 892-0358
: Zenzo.Ndabula2@gauteng.gov.za

MEMO

To	:	Ms Busisiwe Matiwane
From	:	Mr Z Ndabula Chief Executive Officer
Date	:	15 June 2021
Subject	:	**Request to Carry Out Research at Tambo Memorial Hospital: GP_202104_019**

This serves to grant permission Ms Busisiwe Matiwane to carry out a research study: *Multiple job holding among public sector medical doctors, professional nurses and rehabilitation therapists in Gauteng and Mpumalanga* at Tambo Memorial Hospital. This permission is granted in light of improving the skill capacity of the Gauteng Department of Health.

The permission is granted in line with the code of ethics or research.

The information of the Gauteng Health Department will be used for the purpose of research and it will be utilized discreetly and confidentiality will be maintained at all times.

The permission is granted in good faith with the notion and understanding that the abovementioned clause is upheld.

Furthermore, there should be no financial implication to the hospital.

The collection of data will be the responsibility of the researcher.

Yours Sincerely,

.....
Mr ZKO Ndabula
Chief Executive Officer

Tambo Memorial Hospital
Private Bag X2, Boksburg 1460
Tel No: 011 898-8000

GAUTENG PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

MEDICAL ADVISORY COMMITTEE

CHRIS HANI BARAGWANATH ACADEMIC HOSPITAL

PERMISSION TO CONDUCT RESEARCH

Date: 30 June 2021

TITLE OF PROJECT:

Multiple job holding among public sector medical doctors, professional nurses and rehabilitation therapist in Gauteng and Mpumalanga

UNIVERSITY: Witwatersrand

Principal Investigator: Dr B Matiwane

Department: Public Health

Supervisor/s : Prof Rispel

Permission Head Department (where research conducted): N/A

NHRD No 202104-019

The Medical Advisory Committee recommends that the said research be conducted at Chris Hani Baragwanath Academic Hospital. The CEO / management of Chris Hani Baragwanath Academic Hospital is accordingly informed and the study is subject to:-

- Permission having been granted by the Committee for Research on Human Subjects of the University of the Witwatersrand.
- The Hospital will not incur extra costs as a result of the research being conducted on its patients within the hospital
- The MAC will be informed of any serious adverse events as soon as they occur
- Permission is granted for the duration of the Ethics Committee Approval.

.....
Recommended
(On behalf of the MAC)
2021/06/30

.....
Approved/Not Approved
Hospital Management Date:
Date: 01/07/2021

GAUTENG PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

PHOLOSONG HOSPITAL
Enquiries: Dr HPN Mlahleki
Medical Manager
Tel: 011 812 5157/5173
e-mail: Hlomile.Mlahleki@gauteng.gov.za

TO : MS BUSISIWE MATIWANE

FROM : DR HPN MLAHLEKI - MEDICAL MANAGER

SUBJECT : RESEARCH PROTOCOL

DATE : 21 JULY 2021

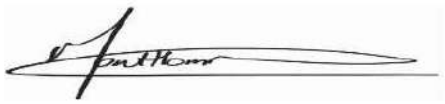
RE: **Multiple job holding among public sector medical doctors, professional nurses and rehabilitation therapists in Gauteng and Mpumalanga**

RESEARCH PROPOSAL DETAILS: GP_202104_019

RESEARCHER: MS Busisiwe Matiwane

This serves to inform that permission has been granted for you to conduct study at Pholosong Hospital in a research study that aims to investigate the experiences, extent, contributory factors, and regulation of multiple job holding among public sector medical doctors, professional nurses, and rehabilitation therapists in Gauteng and Mpumalanga. The specific objectives are to explore the perspectives of stakeholders on the implementation of the RWOPS policy as a regulatory mechanism for multiple job holding; explore the experiences of public sector medical doctors, professional nurses, and rehabilitation therapists concerning MJH; describe the extent of different forms of MJH among three categories of health professionals; determine the factors influencing MJH and investigate the relative trade-offs between different incentives and restrictions to influence MJH among the three categories of health professionals.

Regards,



Dr HPN Mlahleki
Medical Manager
Date: 21 July 2021

GAUTENG PROVINCE
REPUBLIC OF SOUTH AFRICA

TEMBISA PROVINCIAL TERTIARY HOSPITAL
PR NO: 5602793
Cnr Flint Mazibuko Dr & Rev Namane, Olifantsfontein, 1665
Private Bag X 07, Olifantsfontein, 1665
Tel: 011 923 2320 | Fax: 011 926 2719
Enquiries: Dr. L.M. Mogaladi
E-mail: Lekopane.Mogaladi@gauteng.gov.za

To : Ms BP Matlwane

Subject : Permission to Conduct Research at Tembisa Provincial Tertiary Hospital Research Committee

From : Dr A Mthunzi, Acting Chief Executive Officer, Tembisa Provincial Tertiary Hospital

Date : 25 June 2021

Mr/Ms/Dr/Prof BP Matlwane
This is to notify you that you have been granted permission to conduct research in our institution for the following study:

Study Title:
"MULTIPLE JOB HOLDING AMONG PUBLIC SECTOR MEDICAL DOCTORS, PROFESSIONAL NURSES AND REHABILITATION THERAPISTS IN GAUTENG AND MPUMALANGA."

NHRD Reference Number: GP_202104_019

Permission with the following restrictions:

- The study should not interfere with service provision.

Permission to conduct research as per study protocol
Please note the institution requires for all data collection and interaction with staff; patients or records to be as outlined in the study protocol and within the constraints of ethics approval obtained for this study. Should any of these parameters or professional conduct be violated at any stage then the Tembisa Research Committee reserves the right to review and change the decision to allow the researcher to conduct research at the institution.

Please report to the undersigned chair of the Research Committee with all your documents on the first day at the institution for further instructions and introductions.

Recommended by:
Dr MK Chueu
Rotating Chair of Tembisa Provincial Tertiary Hospital Research Committee
Signature: _____
Date: 25/06/2021

Approved by:
Dr A Mthunzi
Acting CEO, Tembisa Provincial Tertiary Hospital
Signature: _____
Date: 28/06/2021

GAUTENG PROVINCE
REPUBLIC OF SOUTH AFRICA

Enquiries: P/N Mabizela/P/N L. Mogoai
Directorate Staff Development
Telephone number: (011) 8917109
Email: Thandiwe.Mabizela @gauteng gov za

Date: 21 June 2021

Ms. Busisiwe Matiwane

Thelle Mogoerane Regional Hospital Management Team is pleased to grant you permission to conduct your study / research **On Multiple job holding among public sector Medical Doctors, Professional nurses and Rehabilitation therapists in Gauteng and Mpumalanga at Thelle Mogoerane Regional Hospital.** Your data will be conducted through obtaining information through **"Prospective data collection"** in your protocol for which you will obtain the ethics clearance certificate from the **University of Witwatersrand .**

The following condition must be adhered to:

- Once the research is finalized the results and recommendations of the research should be submitted to Staff development Department.

Dr
Chief Executive Officer
Thelle Mogoerane Regional Hospital
Date: 2021/06/21.....

Thelle Mogosrane Regional Hospital
Office of the CEO
21-06-2021
12390 Nguza Str, Vosloorus, 1475
Private Bag X01, Alrode, 1451
South Africa

"To be the best provider of quality health care services to the people of Gauteng"

Annexure 3: Approval from the Mpumalanga Provincial Health Research and Ethics Committee

health
MPUMALANGA PROVINCE
REPUBLIC OF SOUTH AFRICA

Indwe Building, Government Boulevard, Riverside Park, Ext. 2, Mbombela, 1200, Mpumalanga Province
Private Bag X11285, Mbombela, 1200, Mpumalanga Province
Tel I: +27 (13) 766 3429, Fax: +27 (13) 766 3458

Litiko Letemphilo | Departement van Gesondheid | UmNyango WezeMaphilo

Enq: 013 766 3766
Ref: MP_202104_001

Research Permission Letter

Ms Busisiwe Matiwane
171 LESISURE BAY ESTATE
5 Bayside Road,
Pretoria, 0187

STUDY TITLE: MULTIPLE JOB HOLDING AMONG PUBLIC SECTOR MEDICAL DOCTORS, PROFESSIONAL NURSES AND REHABILITATION THERAPISTS IN GAUTENG AND MPUMALANGA

Dear Ms Matiwane

The Provincial Department of Health Research Committee has approved your research proposal in the latest format you sent, and hereby grant you permission to conduct your research as detailed below.

- Approval Reference Number: MP_202104_001
- Data Collection Period: 01/08/2021 to 20/08/2022
- Approved Data Collection Facilities:

* Ehlanzeni, Nkangala & Gert Sibande Hospitals

Kindly ensure that conditions mentioned below are adhered to, and that the study is conducted with minimal disruption and impact on our staff, and also ensure that you provide us with a soft or hard copy of the report once your research project has been completed.

Conditions:
- *Researchers not allowed to make copies or take pictures of medical records.*
- *Kindly notify the facility manager a week BEFORE you start with data collection to ensure that conditions are conducive in the facility*

Kind regards

DR C NELSON
MPUMALANGA PHRC CHAIRPERSON
DATE: 28/07/2021

MPUMALANGA
THE PLACE OF THE RISING SUN

health
MPUMALANGA PROVINCE
REPUBLIC OF SOUTH AFRICA

Indwe Building, Government Boulevard, Riverside Park, Ext. 2, Mbombela, 1200, Mpumalanga Province
Private Bag X11285, Mbombela, 1200, Mpumalanga Province
Tel I: +27 (13) 766 3429, Fax: +27 (13) 766 3458

Lilako Letemphilo | Departement van Gesondheid | UmNyango WezeMaphilo

Enq: 013 766 3766
Ref: MP_202104_001

Research Permission Letter

Ms Busisiwe Matiwane
171 LESISURE BAY ESTATE
5 Bayside Road,
Pretoria, 0187

Dear Ms Matiwane

STUDY TITLE: MULTIPLE JOB HOLDING AMONG PUBLIC SECTOR MEDICAL DOCTORS, PROFESSIONAL NURSES AND REHABILITATION THERAPISTS IN GAUTENG AND MPUMALANGA

The Mpumalanga Provincial Health Research and Ethics Committee (MPHREC) has approved your research proposal in the latest format you sent, and hereby grant you permission to conduct your research as detailed below.

- Approval Reference Number: **MP_202104_001**
- Data Collection Period: **01/08/2021 to 20/08/2023**
- Approved Data Collection Facilities:

*** Ehlanzeni, Nkangala & Gert Sibande Hospitals**

Kindly ensure that conditions mentioned below are adhered to, and that the study is conducted with minimal disruption and impact on our staff, and also ensure that you provide us with a soft or hard copy of the report once your research project has been completed.

Conditions:
- *Researchers not allowed to make copies or take pictures of medical records.*
- *Kindly notify the facility manager **a week BEFORE** you start with data collection to ensure that conditions are conducive in the facility.*
- *The FINAL RESEARCH FINDINGS must be uploaded on the NHRD website*

Kind regards

DR C NELSON
MPHREC CHAIRPERSON
DATE: 15/08/2021

MPUMALANGA
THE PLACE OF THE RISING SUN

Annexure 4: Permission letters from Mpumalanga Health Facilities

health
MPUMALANGA PROVINCE
REPUBLIC OF SOUTH AFRICA

MPUMALANGA
THE PLACE OF THE RISING SUN

No.3, Government Boulevard, Riverside Park, Ext. 2, Mbombela, 1200, Mpumalanga Province
Private Bag X11285, Mbombela, 1200, Mpumalanga Province
Tel I: +27 (13) 766 3429, Fax: +27 (13) 766 3458

Litiko Letemphilo | Departement van Gesondheid | UmNyango WezeMaphilo

Letter of Support (To be signed by relevant Senior Managers/Responsibility Managers)

1. Study Details	
1.1 Name of Applicant	Busisiwe Precious Matiwane
1.2 Contact Number:	(0) 748871071
1.3 Study Title:	Multiple job holding among public sector medical doctors, professional nurses and rehabilitation therapists in Gauteng and Mpumalanga.
1.4 Data collection period to undertake the study:	Start: 08/2021 End: 08/2022

1.5 Provide summary of the study, study area, and how data will be collected (your response should not be more than the space provided:

Introduction
Multiple job holding (MJH) is defined as individuals holding more than one paid job simultaneously. There are knowledge gaps on the nature and determinants of MJH among health professionals in low-and-middle-income countries (LMICs), especially those in Africa. This is also the case in South Africa, where the practice is permissible under certain conditions.

Justification for study
The PhD will generate new knowledge on the Remunerative Work Outside the Public Service (RWOPS) as a regulatory mechanism for MJH among public sector health professionals, the prevalence of MJH, and its contributory factors among medical doctors, professional nurses, and rehabilitation therapists in two South African provinces. The PhD study will use a discrete choice experiment (DCE) that is uncommon in MJH studies, and hence will contribute to methodological innovation. The PhD study will inform health workforce policies or interventions on MJH that could lead to improved health system functioning.

Study aims
The study aims to investigate the experiences, extent of, contributory factors, and regulation of multiple job holding among public sector medical doctors, professional nurses, and rehabilitation therapists in Gauteng and Mpumalanga.

Methodology
The study setting will be 28 public hospitals in Gauteng, and 28 hospitals in Mpumalanga, which will allow for some geographical comparison. The study consists of three main components and will use a combination of qualitative and quantitative methods to answer the research objectives:
1. Key Informant Interviews with key informants from across South Africa
2. In-depth interviews with the three categories of health professionals
3. Health professional survey including a discrete choice experiment with the three groups of health professionals.

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district.
i.e. the CEO/District Manager acknowledges to have been consulted on the study

2. Resources Required from Facility/Sub-district/Community		
2.1 Facility Staff Required to assist with the Study	Yes ● How many: Nurses: Doctors: Space: Other, please specify: HR and HODs to provide lists of staff on duty	NO
2.2 Patients / Researchers' Records/Files	Yes Year: From: To:	NO ●
2.3 Interviewing Patients/ participants at Facilities	Yes ● Interviews with health professionals	NO
2.4 Interviewing Patients/ participants at Home	Yes	NO ●
2.5 Other, please specify:	A room for the interviews and the survey.	

3. Resource flow/benefits to the Provincial Department		
3.1 The research is responsive to which National/Provincial/departmental priority/strategy/research agenda. • **State your response:** Management and regulation of moonlighting (multiple job holding) were recognised as important policy priorities in the 5 year Human resource for Health strategy for the health sector. The 2018 Presidential Health Summit highlighted the need to address negative impact of RWOPS in public sector. The 2030 Human Resources for Health Strategy stressed the need for review of current RWOPS policy, including regulation and management.		
3.2 Resource Flow (Are there benefits to Patients/community)	Yes Please list: all potential remedial ideas emanated from research will be taken up for healthcare practice and policy	NO ●
3.3 Resource Flow (Are there benefits to Facility/District)	Yes ● Please list: to create a linkage between all research stakeholders The PhD study will inform HRH policies or interventions on MJH that will lead to improved health system functioning. The policy makers will in turn inform facilities and districts	NO ○

4 Availability of Required Clearance/s			
4.1 Ethical Clearance	Yes Provisional ethics Clearance Number:	Pending ●	NO
4.2 Clinical Trial	Yes NA Clearance Number:	Pending	NO ●
4.3 Vaccine Trial	Yes NA Clearance Number:	Pending	NO ●
4.4 Is conducted in a village led by tribal authority?	Yes Date tribal authority engaged:	Not Applicable ●	NO

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district. i.e. the CEO/District Manager acknowledges to have been consulted on the study

5 Declaration

Declaration by Applicant:

I Mr/Ms/Dr/Prof/Adv. Busisiwe Precious Matiwane agree to submit/present the result of this study back to the CEO/Institution/District.

Estimated date of feedback: 2-Aug-24

To be signed by a relevant CEO/District Manager/Programme Manager/Senior Manager in Mpumalanga Province

Supported / Not Supported

The study is supported

Signature: _____ **Date:** 24/05/2021

Name: Victor

TONGA HOSPITAL
CHIEF EXECUTIVE OFFICER
2021 -05- 24
Stamp
PO BOX 661
KWALUGEDLANE 1341
DEPARTMENT OF HEALTH

A duly signed form can be uploaded on the nhrd website by the researcher or emailed to: JerryS@mpuhealth.gov.za or ThembaM@mpuhealth.gov.za

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district. i.e. the CEO/District Manager acknowledges to have been consulted on the study

health
MPUMALANGA PROVINCE
REPUBLIC OF SOUTH AFRICA

MPUMALANGA
THE PLACE OF THE RISING SUN

No.3, Government Boulevard, Riverside Park, Ext. 2, Mbombela, 1200, Mpumalanga Province
Private Bag X11285, Mbombela, 1200, Mpumalanga Province
Tel I: +27 (13) 766 3429, Fax: +27 (13) 766 3458

Litiko Letemphilo | Departement van Gesondheid | UmNyango WezeMaphilo

Letter of Support (To be signed by relevant Senior Managers/Responsibility Managers)

1. Study Details	
1.1 Name of Applicant	Busisiwe Precious Matiwane
1.2 Contact Number:	(0) 748871071
1.3 Study Title:	Multiple job holding among public sector medical doctors, professional nurses and rehabilitation therapists in Gauteng and Mpumalanga.
1.4 Data collection period to undertake the study:	Start: 08/2021 End: 08/2022

1.5 Provide summary of the study, study area, and how data will be collected (your response should not be more than the space provided:

Introduction
Multiple job holding (MJH) is defined as individuals holding more than one paid job simultaneously. There are knowledge gaps on the nature and determinants of MJH among health professionals in low-and-middle-income countries (LMICs), especially those in Africa. This is also the case in South Africa, where the practice is permissible under certain conditions.

Justification for study
The PhD will generate new knowledge on the Remunerative Work Outside the Public Service (RWOPS) as a regulatory mechanism for MJH among public sector health professionals, the prevalence of MJH, and its contributory factors among medical doctors, professional nurses, and rehabilitation therapists in two South African provinces. The PhD study will use a discrete choice experiment (DCE) that is uncommon in MJH studies, and hence will contribute to methodological innovation. The PhD study will inform health workforce policies or interventions on MJH that could lead to improved health system functioning.

Study aims
The study aims to investigate the experiences, extent of, contributory factors, and regulation of multiple job holding among public sector medical doctors, professional nurses, and rehabilitation therapists in Gauteng and Mpumalanga.

Methodology
The study setting will be 28 public hospitals in Gauteng, and 28 hospitals in Mpumalanga, which will allow for some geographical comparison. The study consists of three main components and will use a combination of qualitative and quantitative methods to answer the research objectives:
1. Key Informant Interviews with key informants from across South Africa
2. In-depth interviews with the three categories of health professionals
3. Health professional survey including a discrete choice experiment with the three groups of health professionals.

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district. i.e. the CEO/District Manager acknowledges to have been consulted on the study

2. Resources Required from Facility/Sub-district/Community

2.1 Facility Staff Required to assist with the Study	**Yes** ● **How many:** Nurses: Doctors: Space: Other, please specify: HR and HODs to provide lists of staff on duty	NO
2.2 Patients / Researchers' Records/Files	**Yes** Year: From: To:	NO ●
2.3 Interviewing Patients/ participants at Facilities	**Yes** ● Interviews with health professionals	NO
2.4 Interviewing Patients/ participants at Home	**Yes**	NO ●
2.5 Other, please specify:	A room for the interviews and the survey.	

3. Resource flow/benefits to the Provincial Department

3.1 The research is responsive to which National/Provincial/departmental priority/strategy/research agenda.

- **State your response:** Management and regulation of moonlighting (multiple job holding) were recognised as important policy priorities in the 5 year Human resource for Health strategy for the health sector. The 2018 Presidential Health Summit highlighted the need to address negative impact of RWOPS in public sector. The 2030 Human Resources for Health Strategy stressed the need for review of current RWOPS policy, including regulation and management.

3.2 Resource Flow (Are there benefits to Patients/community)	**Yes** Please list: all potential remedial ideas emanated from research will be taken up for healthcare practice and policy	NO ●
3.3 Resource Flow (Are there benefits to Facility/District)	**Yes** ● Please list: to create a linkage between all research stakeholders The PhD study will inform HRH policies or interventions on MJH that will lead to improved health system functioning. The policy makers will in turn inform facilities and districts	NO ○

4. Availability of Required Clearance/s

4.1 Ethical Clearance	**Yes** Provisional ethics Clearance Number:	**Pending** ●	NO
4.2 Clinical Trial	**Yes** NA Clearance Number:	**Pending**	NO ●
4.3 Vaccine Trial	**Yes** NA Clearance Number:	**Pending**	NO ●
4.4 Is conducted in a village led by tribal authority?	**Yes** Date tribal authority engaged:	Not Applicable ●	NO

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district.
i.e. the CEO/District Manager acknowledges to have been consulted on the study

5 Declaration

Declaration by Applicant:

I Mr/Ms/Dr/Prof/Adv Busisiwe Precious Matiwane agree to submit/present the result of this study back to the CEO/Institution/District.

Estimated date of feedback: 2-Aug-24

To be signed by a relevant CEO/District Manager/Programme Manager/Senior Manager in Mpumalanga Province

Supported / Not Supported

To receive findings must be shared with the facility

Signature: _____ **Date:** 27.05.2021

Name: MB Ngwenya

MPUMALANGA PROVINCIAL GOVERMENT
DEPT OF HEALTH
2021 -05- 10
TINTSWALO HOSPITAL
P/BAG X407 ACORNHOEK 1360

A duly signed form can be uploaded on the nhrd website by the researcher or emailed to: JerryS@mpuhealth.gov.za or ThembaM@mpuhealth.gov.za

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district i.e. the CEO/District Manager acknowledges to have been consulted on the study

health
MPUMALANGA PROVINCE
REPUBLIC OF SOUTH AFRICA

MPUMALANGA
THE PLACE OF THE RISING SUN

No.3, Government Boulevard, Riverside Park, Ext. 2, Mbombela, 1200, Mpumalanga Province
Private Bag X11285, Mbombela, 1200, Mpumalanga Province
Tel I: +27 (13) 766 3429, Fax: +27 (13) 766 3458

Litiko Letemphilo | Departement van Gesondheid | UmNyango WezeMaphilo

Letter of Support (To be signed by relevant Senior Managers/Responsibility Managers)

1. Study Details	
1.1 Name of Applicant	Busisiwe Precious Matiwane
1.2 Contact Number:	(0) 748871071
1.3 Study Title:	Multiple job holding among public sector medical doctors, professional nurses and rehabilitation therapists in Gauteng and Mpumalanga.
1.4 Data collection period to undertake the study:	Start: 08/2021 End: 08/2022

1.5 Provide summary of the study, study area, and how data will be collected (your response should not be more than the space provided:

Introduction
Multiple job holding (MJH) is defined as individuals holding more than one paid job simultaneously. There are knowledge gaps on the nature and determinants of MJH among health professionals in low-and-middle-income countries (LMICs), especially those in Africa. This is also the case in South Africa, where the practice is permissible under certain conditions.

Justification for study
The PhD will generate new knowledge on the Remunerative Work Outside the Public Service (RWOPS) as a regulatory mechanism for MJH among public sector health professionals, the prevalence of MJH, and its contributory factors among medical doctors, professional nurses, and rehabilitation therapists in two South African provinces. The PhD study will use a discrete choice experiment (DCE) that is uncommon in MJH studies, and hence will contribute to methodological innovation. The PhD study will inform health workforce policies or interventions on MJH that could lead to improved health system functioning.

Study aims
The study aims to investigate the experiences, extent of, contributory factors, and regulation of multiple job holding among public sector medical doctors, professional nurses, and rehabilitation therapists in Gauteng and Mpumalanga.

Methodology
The study setting will be 28 public hospitals in Gauteng, and 28 hospitals in Mpumalanga, which will allow for some geographical comparison. The study consists of three main components and will use a combination of qualitative and quantitative methods to answer the research objectives:
1. Key Informant Interviews with key informants from across South Africa
2. In-depth interviews with the three categories of health professionals
3. Health professional survey including a discrete choice experiment with the three groups of health professionals.

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district.
i.e. the CEO/District Manager acknowledges to have been consulted on the study

2. Resources Required from Facility/Sub-district/Community		
2.1 Facility Staff Required to assist with the Study	Yes ● How many: Nurses: Doctors: Space: Other, please specify: HR and HODs to provide lists of staff on duty	NO
2.2 Patients / Researchers' Records/Files	Yes Year: From: To:	NO ●
2.3 Interviewing Patients/ participants at Facilities	Yes ● Interviews with health professionals	NO
2.4 Interviewing Patients/ participants at Home	Yes	NO ●
2.5 Other, please specify:	A room for the interviews and the survey.	

3 Resource flow/benefits to the Provincial Department		
3.1 The research is responsive to which National/Provincial/departmental priority/strategy/research agenda. • **State your response:** Management and regulation of moonlighting (multiple job holding) were recognised as important policy priorities in the 5 year Human resource for Health strategy for the health sector. The 2018 Presidential Health Summit highlighted the need to address negative impact of RWOPS in public sector. The 2030 Human Resources for Health Strategy stressed the need for review of current RWOPS policy, including regulation and management.		
3.2 Resource Flow (Are there benefits to Patients/community)	Yes Please list: all potential remedial ideas emanated from research will be taken up for healthcare practice and policy	NO ●
3.3 Resource Flow (Are there benefits to Facility/District)	Yes ● Please list: to create a linkage between all research stakeholders The PhD study will inform HRH policies or interventions on MJH that will lead to improved health system functioning. The policy makers will in turn inform facilities and districts	NO ○

4 Availability of Required Clearance/s			
4.1 Ethical Clearance	Yes Provisional ethics Clearance Number:	Pending ●	NO
4.2 Clinical Trial	Yes NA Clearance Number:	Pending	NO ●
4.3 Vaccine Trial	Yes NA Clearance Number:	Pending	NO ●
4.4 Is conducted in a village led by tribal authority?	Yes Date tribal authority engaged:	Not Applicable ●	NO

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district.
i.e. the CEO/District Manager acknowledges to have been consulted on the study

5 Declaration

Declaration by Applicant:

I Mr/Ms/Dr/~~Prof/Adv.~~ Busisiwe Precious Matiwane agree to submit/present the result of this study back to the CEO/~~Institution~~/District.

Estimated date of feedback: 2-Aug-24

To be signed by a relevant CEO/District Manager/Programme Manager/Senior Manager in Mpumalanga Province

Supported / ~~**Not Supported**~~

Signature: [signature] **Date:** 26 MAY 2021

Name: ALFRED DINTWENG TSELANE

MPUMALANGA PROVINCIAL GOVERNMENT
TEMPILO HEALTH
2021 -05- 2
THEMBA HOSPITAL
REGISTRY
S/POS\P/BAG/P/SAK X1002
KABOKWENI 1245

A duly signed form can be uploaded on the nhrd website by the researcher or emailed to: JerryS@mpuhealth.gov.za or ThembaM@mpuhealth.gov.za

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility district. i.e. the CEO/District Manager acknowledges to have been consulted on the study

health
MPUMALANGA PROVINCE
REPUBLIC OF SOUTH AFRICA

MPUMALANGA
THE PLACE OF THE RISING SUN

No.3, Government Boulevard, Riverside Park, Ext. 2, Mbombela, 1200, Mpumalanga Province
Private Bag X11285, Mbombela, 1200, Mpumalanga Province
Tel I: +27 (13) 766 3429, Fax: +27 (13) 766 3458

Litiko Letemphilo | Departement van Gesondheid | UmNyango WezeMaphilo

Letter of Support (To be signed by relevant Senior Managers/Responsibility Managers)

1. Study Details	
1.1 Name of Applicant	Busisiwe Precious Matiwane
1.2 Contact Number:	(0) 748871071
1.3 Study Title:	Multiple job holding among public sector medical doctors, professional nurses and rehabilitation therapists in Gauteng and Mpumalanga.
1.4 Data collection period to undertake the study:	Start: 08/2021 End: 08/2022

1.5 Provide summary of the study, study area, and how data will be collected (your response should not be more than the space provided:

Introduction
Multiple job holding (MJH) is defined as individuals holding more than one paid job simultaneously. There are knowledge gaps on the nature and determinants of MJH among health professionals in low-and-middle-income countries (LMICs), especially those in Africa. This is also the case in South Africa, where the practice is permissible under certain conditions.

Justification for study
The PhD will generate new knowledge on the Remunerative Work Outside the Public Service (RWOPS) as a regulatory mechanism for MJH among public sector health professionals, the prevalence of MJH, and its contributory factors among medical doctors, professional nurses, and rehabilitation therapists in two South African provinces. The PhD study will use a discrete choice experiment (DCE) that is uncommon in MJH studies, and hence will contribute to methodological innovation. The PhD study will inform health workforce policies or interventions on MJH that could lead to improved health system functioning.

Study aims
The study aims to investigate the experiences, extent of, contributory factors, and regulation of multiple job holding among public sector medical doctors, professional nurses, and rehabilitation therapists in Gauteng and Mpumalanga.

Methodology
The study setting will be 28 public hospitals in Gauteng, and 28 hospitals in Mpumalanga, which will allow for some geographical comparison. The study consists of three main components and will use a combination of qualitative and quantitative methods to answer the research objectives:
1. Key Informant interviews with key informants from across South Africa
2. In-depth interviews with the three categories of health professionals
3. Health professional survey including a discrete choice experiment with the three groups of health professionals.

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district. i.e. the CEO/District Manager acknowledges to have been consulted on the study

2. Resources Required from Facility/Sub-district/Community		
2.1 Facility Staff Required to assist with the Study	Yes ● **How many:** Nurses: Doctors: Space: Other, please specify: HR and HODs to provide lists of staff on duty	NO
2.2 Patients / Researchers Records/Files	Yes Year. From: To:	NO ●
2.3 Interviewing Patients/ participants at Facilities	Yes ● Interviews with health professionals	NO
2.4 Interviewing Patients/ participants at Home	Yes	NO ●
2.5 Other, please specify	A room for the interviews and the survey.	

3 Resource flow/benefits to the Provincial Department		
3.1 The research is responsive to which National/Provincial/departmental priority/strategy/research agenda. • **State your response.** Management and regulation of moonlighting (multiple job holding) were recognised as important policy priorities in the 5 year Human resource for Health strategy for the health sector. The 2018 Presidential Health Summit highlighted the need to address negative impact of RWOPS in public sector. The 2030 Human Resources for Health Strategy stressed the need for review of current RWOPS policy, including regulation and management		
3.2 Resource Flow (Are there benefits to Patients/community)	Yes Please list: all potential remedial ideas emanated from research will be taken up for healthcare practice and policy	NO ●
3.3 Resource Flow (Are there benefits to Facility/District)	Yes ● Please list: to create a linkage between all research stakeholders The PhD study will inform HRH policies or interventions on MJH that will lead to improved health system functioning The policy makers will in turn inform facilities and districts	NO ○

4 Availability of Required Clearance/s			
4.1 Ethical Clearance	**Yes** Provisional ethics Clearance Number:	**Pending** ●	NO
4.2 Clinical Trial	**Yes** NA Clearance Number:	**Pending**	NO ●
4.3 Vaccine Trial	**Yes** NA Clearance Number:	**Pending**	NO ●
4.4 Is conducted in a village led by tribal authority?	**Yes** Date tribal authority engaged:	Not Applicable ●	NO

Please note this (this letter is not an approval to undertake a study, but a support letter from identified facility/district i.e. the CEO/District Manager acknowledges to have been consulted on the study

5 Declaration

Declaration by Applicant:

I ~~Mr/Ms/Dr/Prof/Adv.~~ Busisiwe Precious Matiwane agree to ~~submit~~/present the result of this study back to the ~~CEO/Institution~~/District.

Estimated date of feedback: 2-Aug-24

To be signed by a relevant CEO/~~District Manager/Programme Manager/Senior Manager~~ in Mpumalanga Province

Supported / ~~Not Supported~~

Signature: _____ **Date:** 30/04/2021

Name: P. B. MABUZA

SHONGWE HOSPITAL
PRIVATE BAG X301
2021 -05- 0
HUMAN RESOURCE MANAGEMENT
DEPARTMENT OF HEALTH

A duly signed form can be uploaded on the nhrd website by the researcher or emailed to: JerryS@mpuhealth.gov.za or ThembaM@mpuhealth.gov.za

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district. i.e. the CEO/District Manager acknowledges to have been consulted on the study

health
MPUMALANGA PROVINCE
REPUBLIC OF SOUTH AFRICA

MPUMALANGA
THE PLACE OF THE RISING SUN

No.3, Government Boulevard, Riverside Park, Ext. 2, Mbombela, 1200, Mpumalanga Province
Private Bag X11285, Mbombela, 1200, Mpumalanga Province
Tel I: +27 (13) 766 3429, Fax: +27 (13) 766 3458

Litiko Letemphilo | Departement van Gesondheid | UmNyango WezeMaphilo

Letter of Support (To be signed by relevant Senior Managers/Responsibility Managers)

Study Details	
1.1 Name of Applicant	Busisiwe Precious Matiwane
1.2 Contact Number:	(0) 748871071
1.3 Study Title:	Multiple job holding among public sector medical doctors, professional nurses and rehabilitation therapists in Gauteng and Mpumalanga.
1.4 Data collection period to undertake the study:	Start: 08/2021 End: 08/2022

1.5 Provide summary of the study, study area, and how data will be collected (your response should not be more than the space provided:

Introduction
Multiple job holding (MJH) is defined as individuals holding more than one paid job simultaneously. There are knowledge gaps on the nature and determinants of MJH among health professionals in low-and-middle-income countries (LMICs), especially those in Africa. This is also the case in South Africa, where the practice is permissible under certain conditions.

Justification for study
The PhD will generate new knowledge on the Remunerative Work Outside the Public Service (RWOPS) as a regulatory mechanism for MJH among public sector health professionals, the prevalence of MJH, and its contributory factors among medical doctors, professional nurses, and rehabilitation therapists in two South African provinces. The PhD study will use a discrete choice experiment (DCE) that is uncommon in MJH studies, and hence will contribute to methodological innovation. The PhD study will inform health workforce policies or interventions on MJH that could lead to improved health system functioning.

Study aims
The study aims to investigate the experiences, extent of, contributory factors, and regulation of multiple job holding among public sector medical doctors, professional nurses, and rehabilitation therapists in Gauteng and Mpumalanga.

Methodology
The study setting will be 28 public hospitals in Gauteng, and 28 hospitals in Mpumalanga, which will allow for some geographical comparison. The study consists of three main components and will use a combination of qualitative and quantitative methods to answer the research objectives:
1. Key Informant Interviews with key informants from across South Africa
2. In-depth interviews with the three categories of health professionals
3. Health professional survey including a discrete choice experiment with the three groups of health professionals.

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district.
i.e. the CEO/District Manager acknowledges to have been consulted on the study

2 Resources Required from Facility/Sub-district/Community

2.1 Facility Staff Required to assist with the Study	Yes ●	NO ☐
	How many:	
	Nurses:	
	Doctors:	
	Space:	
	Other, please specify:	HR and HODs to provide lists of staff on duty
2.2 Patients / Researchers' Records/Files	Yes ☐ Year: From: To:	NO ●
2.3 Interviewing Patients/ participants at Facilities	Yes ● Interviews with health professionals	NO ☐
2.4 Interviewing Patients/ participants at Home	Yes ☐	NO ●
2.5 Other, please specify:	A room for the interviews and the survey.	

3 Resources / Benefits to the Provincial Department

3.1 The research is responsive to which National/Provincial/departmental priority/strategy/research agenda.

- **State your response:** Management and regulation of moonlighting (multiple job holding) were recognised as important policy priorities in the 5 year Human resource for Health strategy for the health sector. The 2018 Presidential Health Summit highlighted the need to address negative impact of RWOPS in public sector. The 2030 Human Resources for Health Strategy stressed the need for review of current RWOPS policy, including regulation and management.

3.2 Resource Flow (Are there benefits to Patients/community)	Yes ☐ Please list: all potential remedial ideas emanated from research will be taken up for healthcare practice and policy	NO ●
3.3 Resource Flow (Are there benefits to Facility/District)	Yes ● Please list: to create a linkage between all research stakeholders The PhD study will inform HRH policies or interventions on MJH that will lead to improved health system functioning. The policy makers will in turn inform facilities and districts	NO ○

4 Availability of Required Clearances

4.1 Ethical Clearance	Yes Provisional ethics ☐ Clearance Number:	Pending ●	NO ☐
4.2 Clinical Trial	Yes NA ☐ Clearance Number:	Pending ☐	NO ●
4.3 Vaccine Trial	Yes NA ☐ Clearance Number:	Pending ☐	NO ●
4.4 Is conducted in a village led by tribal authority?	Yes ☐ Not Applicable ● Date tribal authority engaged:		NO ☐

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district.
i.e. the CEO/District Manager acknowledges to have been consulted on the study

5 Declaration

Declaration by Applicant:

I Mr/Ms/Dr/Prof/Adv. Busisiwe Precious Matiwane agree to submit/present the result of this study back to the CEO/Institution/District.

Estimated date of feedback: 2-Aug-24

To be signed by a relevant CEO/District Manager/Programme Manager/Senior Manager in Mpumalanga Province

Supported / Not Supported — Supported

Signature: _____ Date: 20/5/21

Name: _____

Rob Ferreira Provincial Hospital
Private bag X11223 Mbombela 1200
Tel: 013 741 6300
20 MAY 2021
Mrs FBG Nyathi
Chief Executive Officer
Email: FNyathi@mpuhealth.gov.za

A duly signed form can be uploaded on the nhrd website by the researcher or emailed to: JerryS@mpuhealth.gov.za or ThembaiM@mpuhealth.gov.za

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district i.e. the CEO/District Manager acknowledges to have been consulted on the study

health
MPUMALANGA PROVINCE
REPUBLIC OF SOUTH AFRICA

MPUMALANGA
THE PLACE OF THE RISING SUN

No.3, Government Boulevard, Riverside Park, Ext. 2, Mbombela, 1200, Mpumalanga Province
Private Bag X11285, Mbombela, 1200, Mpumalanga Province
Tel I: +27 (13) 766 3429, Fax: +27 (13) 766 3458

Litiko Letemphilo | Departement van Gesondheid | UmNyango WezeMaphilo

Letter of Support (To be signed by relevant Senior Managers/Responsibility Managers)

Study Details	
1.1 Name of Applicant	Busisiwe Precious Matiwane
1.2 Contact Number:	(0) 748871071
1.3 Study Title:	Multiple job holding among public sector medical doctors, professional nurses and rehabilitation therapists in Gauteng and Mpumalanga.
1.4 Data collection period to undertake the study:	Start: 08/2021 End: 08/2022

1.5 Provide summary of the study, study area, and how data will be collected (your response should not be more than the space provided:

Introduction
Multiple job holding (MJH) is defined as individuals holding more than one paid job simultaneously. There are knowledge gaps on the nature and determinants of MJH among health professionals in low-and-middle-income countries (LMICs), especially those in Africa. This is also the case in South Africa, where the practice is permissible under certain conditions.

Justification for study
The PhD will generate new knowledge on the Remunerative Work Outside the Public Service (RWOPS) as a regulatory mechanism for MJH among public sector health professionals, the prevalence of MJH, and its contributory factors among medical doctors, professional nurses, and rehabilitation therapists in two South African provinces. The PhD study will use a discrete choice experiment (DCE) that is uncommon in MJH studies, and hence will contribute to methodological innovation. The PhD study will inform health workforce policies or interventions on MJH that could lead to improved health system functioning.

Study aims
The study aims to investigate the experiences, extent of, contributory factors, and regulation of multiple job holding among public sector medical doctors, professional nurses, and rehabilitation therapists in Gauteng and Mpumalanga.

Methodology
The study setting will be 28 public hospitals in Gauteng, and 28 hospitals in Mpumalanga, which will allow for some geographical comparison. The study consists of three main components and will use a combination of qualitative and quantitative methods to answer the research objectives:
1. Key Informant Interviews with key informants from across South Africa
2. In-depth interviews with the three categories of health professionals
3. Health professional survey including a discrete choice experiment with the three groups of health professionals.

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district.
i.e. the CEO/District Manager acknowledges to have been consulted on the study

2. Resources Required from Facility/Sub-district/Community

2.1 Facility Staff Required to assist with the Study	**Yes** ●	**NO** ☐
	How many: Nurses: Doctors: Space: Other, please specify: HR and HODs to provide lists of staff on duty	
2.2 Patients / Researchers' Records/Files	**Yes** ☐ Year: From: To:	**NO** ●
2.3 Interviewing Patients/ participants at Facilities	**Yes** ● Interviews with health professionals	**NO** ☐
2.4 Interviewing Patients/ participants at Home	**Yes** ☐	**NO** ●
2.5 Other, please specify:	A room for the interviews and the survey.	

3. Resource Flow/benefits to the Provincial Department

3.1 The research is responsive to which National/Provincial/departmental priority/strategy/research agenda.

- **State your response:** Management and regulation of moonlighting (multiple job holding) were recognised as important policy priorities in the 5 year Human resource for Health strategy for the health sector. The 2018 Presidential Health Summit highlighted the need to address negative impact of RWOPS in public sector. The 2030 Human Resources for Health Strategy stressed the need for review of current RWOPS policy, including regulation and management.

3.2 Resource Flow (Are there benefits to Patients/community)	**Yes** ☐ Please list: all potential remedial ideas emanated from research will be taken up for healthcare practice and policy	**NO** ●
3.3 Resource Flow (Are there benefits to Facility/District)	**Yes** ● Please list: to create a linkage between all research stakeholders The PhD study will inform HRH policies or interventions on MJH that will lead to improved health system functioning. The policy makers will in turn inform facilities and districts	**NO** ☐

4. Availability of Required Clearances

4.1 Ethical Clearance	**Yes** Provisional ethics ☐ ☐ Clearance Number:	**Pending** ●	**NO** ☐
4.2 Clinical Trial	**Yes** NA ☐ Clearance Number:	**Pending** ☐	**NO** ●
4.3 Vaccine Trial	**Yes** NA ☐ ☐ Clearance Number:	**Pending** ☐	**NO** ●
4.4 Is conducted in a village led by tribal authority?	**Yes** ☐ Not Applicable ● Date tribal authority engaged:		**NO** ☐

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district.
i.e. the CEO/District Manager acknowledges to have been consulted on the study

6 Declaration

Declaration by Applicant:

I Mr/Ms/Dr/~~Prof~~/Adv. Busisiwe Precious Matiwane agree to ~~submit~~/present the result of this study back to the CEO/Institution/District.

Estimated date of feedback: 2-Aug-24

To be signed by a relevant CEO/District Manager/Programme Manager/Senior Manager in Mpumalanga Province

Supported / ~~Not Supported~~

Signature: _____ **Date:** 24/05/2021

Name: L.P. Ndlovu

MPUMALANGA GOVERNMENT
DEPARTMENT OF HEALTH
2021 -05- 24
PIET RETIEF HOSPITAL
P/BAG X9, PIET RETIEF, 2380

A duly signed form can be uploaded on the nhrd website by the researcher or emailed to: JerryS@mpuhealth.gov.za or ThembaM@mpuhealth.gov.za

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district, i.e. the CEO/District Manager acknowledges to have been consulted on the study

health
MPUMALANGA PROVINCE
REPUBLIC OF SOUTH AFRICA

MPUMALANGA
THE PLACE OF THE RISING SUN

No.3, Government Boulevard, Riverside Park, Ext. 2, Mbombela, 1200, Mpumalanga Province
Private Bag X11285, Mbombela, 1200, Mpumalanga Province
Tel I: +27 (13) 766 3429, Fax: +27 (13) 766 3458

Litiko Letemphilo | Departement van Gesondheid | UmNyango WezeMaphilo

Letter of Support (To be signed by relevant Senior Managers/Responsibility Managers)

1. Study Details	
1.1 Name of Applicant	Busisiwe Precious Matiwane
1.2 Contact Number:	(0) 748871071
1.3 Study Title:	Multiple job holding among public sector medical doctors, professional nurses and rehabilitation therapists in Gauteng and Mpumalanga.
1.4 Data collection period to undertake the study:	Start: 08/2021 End: 08/2022

1.5 Provide summary of the study, study area, and how data will be collected (your response should not be more than the space provided:

Introduction
Multiple job holding (MJH) is defined as individuals holding more than one paid job simultaneously. There are knowledge gaps on the nature and determinants of MJH among health professionals in low-and-middle-income countries (LMICs), especially those in Africa. This is also the case in South Africa, where the practice is permissible under certain conditions.

Justification for study
The PhD will generate new knowledge on the Remunerative Work Outside the Public Service (RWOPS) as a regulatory mechanism for MJH among public sector health professionals, the prevalence of MJH, and its contributory factors among medical doctors, professional nurses, and rehabilitation therapists in two South African provinces. The PhD study will use a discrete choice experiment (DCE) that is uncommon in MJH studies, and hence will contribute to methodological innovation. The PhD study will inform health workforce policies or interventions on MJH that could lead to improved health system functioning.

Study aims
The study aims to investigate the experiences, extent of, contributory factors, and regulation of multiple job holding among public sector medical doctors, professional nurses, and rehabilitation therapists in Gauteng and Mpumalanga.

Methodology
The study setting will be 28 public hospitals in Gauteng, and 28 hospitals in Mpumalanga, which will allow for some geographical comparison. The study consists of three main components and will use a combination of qualitative and quantitative methods to answer the research objectives:
1. Key informant interviews with key informants from across South Africa
2. In-depth interviews with the three categories of health professionals
3. Health professional survey including a discrete choice experiment with the three groups of health professionals.

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district.
i.e. the CEO/District Manager acknowledges to have been consulted on the study

2 Resources Required from Facility/Sub-district/Community		
2.1 Facility Staff Required to assist with the Study	Yes ● How many: Nurses: Doctors: Space: Other, please specify: HR and HODs to provide lists of staff on duty	NO
2.2 Patients / Researchers' Records/Files	Yes Year: From: To:	NO ●
2.3 Interviewing Patients/ participants at Facilities	Yes ● Interviews with health professionals	NO
2.4 Interviewing Patients/ participants at Home	Yes	NO ●
2.5 Other, please specify:	A room for the interviews and the survey.	

3 Resource flow/benefits to the Provincial Department		
3.1 The research is responsive to which National/Provincial/departmental priority/strategy/research agenda. • State your response:	Management and regulation of moonlighting (multiple job holding) were recognised as important policy priorities in the 5 year Human resource for Health strategy for the health sector. The 2018 Presidential Health Summit highlighted the need to address negative impact of RWOPS in public sector. The 2030 Human Resources for Health Strategy stressed the need for review of current RWOPS policy, including regulation and management.	
3.2 Resource Flow (Are there benefits to Patients/community)	Yes Please list: all potential remedial ideas emanated from research will be taken up for healthcare practice and policy	NO ●
3.3 Resource Flow (Are there benefits to Facility/District)	Yes ● Please list: to create a linkage between all research stakeholders The PhD study will inform HRH policies or interventions on MJH that will lead to improved health system functioning. The policy makers will in turn inform facilities and districts	NO ○

4 Availability of Required Clearance/s			
4.1 Ethical Clearance	Yes Provisional ethics Clearance Number:	Pending ●	NO
4.2 Clinical Trial	Yes NA Clearance Number:	Pending	NO ●
4.3 Vaccine Trial	Yes NA Clearance Number:	Pending	NO ●
4.4 Is conducted in a village led by tribal authority?	Yes Date tribal authority engaged:	Not Applicable ●	NO

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district, i.e. the CEO/District Manager acknowledges to have been consulted on the study

5 Declaration

Declaration by Applicant:

I ~~Mr/Ms/Dr/Prof/Adv.~~ Busisiwe Precious Matiwane agree to submit/present the result of this study back to the ~~CEO/Institution/District~~.

Estimated date of feedback: 2-Aug-24

To be signed by a relevant CEO/District Manager/Programme Manager/Senior Manager in Mpumalanga Province

~~Supported~~ / ~~Not Supported~~

The outcome of the study should be shared with the Department

Signature: [signature] Date: 11.05.2024

Name: M.S. Matthomuse

NKANGALA DISTRICT
DISTRICT MANAGER
2021 -05- 11
Private Bag X7293
Emalahleni 1035
DEPARTMENT OF HEALTH

A duly signed form can be uploaded on the nhrd website by the researcher or emailed to: JerryS@mpuhealth.gov.za or ThembaM@mpuhealth.gov.za

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district. i.e. the CEO/District Manager acknowledges to have been consulted on the study

health
MPUMALANGA PROVINCE
REPUBLIC OF SOUTH AFRICA

MPUMALANGA
THE PLACE OF THE RISING SUN

No.3, Government Boulevard, Riverside Park, Ext. 2, Mbombela, 1200, Mpumalanga Province
Private Bag X11285, Mbombela, 1200, Mpumalanga Province
Tel I: +27 (13) 766 3429, Fax: +27 (13) 766 3458

Litiko Letemphilo | Departement van Gesondheid | UmNyango WezeMaphilo

Letter of Support (To be signed by relevant Senior Managers/Responsibility Managers)

1. Study Details	
1.1 Name of Applicant	Busisiwe Precious Matiwane
1.2 Contact Number:	(0) 748871071
1.3 Study Title:	Multiple job holding among public sector medical doctors, professional nurses and rehabilitation therapists in Gauteng and Mpumalanga.
1.4 Data collection period to undertake the study:	Start: 08/2021 End: 08/2022

1.5 Provide summary of the study, study area, and how data will be collected (your response should not be more than the space provided:

Introduction
Multiple job holding (MJH) is defined as individuals holding more than one paid job simultaneously. There are knowledge gaps on the nature and determinants of MJH among health professionals in low-and-middle-income countries (LMICs), especially those in Africa. This is also the case in South Africa, where the practice is permissible under certain conditions.

Justification for study
The PhD will generate new knowledge on the Remunerative Work Outside the Public Service (RWOPS) as a regulatory mechanism for MJH among public sector health professionals, the prevalence of MJH, and its contributory factors among medical doctors, professional nurses, and rehabilitation therapists in two South African provinces. The PhD study will use a discrete choice experiment (DCE) that is uncommon in MJH studies, and hence will contribute to methodological innovation. The PhD study will inform health workforce policies or interventions on MJH that could lead to improved health system functioning.

Study aims
The study aims to investigate the experiences, extent of, contributory factors, and regulation of multiple job holding among public sector medical doctors, professional nurses, and rehabilitation therapists in Gauteng and Mpumalanga.

Methodology
The study setting will be 28 public hospitals in Gauteng, and 28 hospitals in Mpumalanga, which will allow for some geographical comparison. The study consists of three main components and will use a combination of qualitative and quantitative methods to answer the research objectives:
1. Key Informant Interviews with key informants from across South Africa
2. In-depth interviews with the three categories of health professionals
3. Health professional survey including a discrete choice experiment with the three groups of health professionals.

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district.
i.e. the CEO/District Manager acknowledges to have been consulted on the study

2 Resources Required from Facility/Sub-district/Community		
2.1 Facility Staff Required to assist with the Study	Yes ● How many: Nurses: Doctors: Space: Other, please specify: HR and HODs to provide lists of staff on duty	NO
2.2 Patients / Researchers' Records/Files	Yes Year: From: To:	NO ●
2.3 Interviewing Patients/ participants at Facilities	Yes ● Interviews with health professionals	NO
2.4 Interviewing Patients/ participants at Home	Yes	NO ●
2.5 Other, please specify:	A room for the interviews and the survey.	

3 Resource flow/benefits to the Provincial Department		
3.1 The research is responsive to which National/Provincial/departmental priority/strategy/research agenda. • State your response:	Management and regulation of moonlighting (multiple job holding) were recognised as important policy priorities in the 5 year Human resource for Health strategy for the health sector. The 2018 Presidential Health Summit highlighted the need to address negative impact of RWOPS in public sector. The 2030 Human Resources for Health Strategy stressed the need for review of current RWOPS policy, including regulation and management.	
3.2 Resource Flow (Are there benefits to Patients/community)	Yes Please list: all potential remedial ideas emanated from research will be taken up for healthcare practice and policy	NO ●
3.3 Resource Flow (Are there benefits to Facility/District)	Yes ● Please list: to create a linkage between all research stakeholders The PhD study will inform HRH policies or interventions on MJH that will lead to improved health system functioning. The policy makers will in turn inform facilities and districts	NO ○

4 Availability of Required Clearance/s			
4.1 Ethical Clearance	Yes Provisional ethics Clearance Number:	Pending ●	NO
4.2 Clinical Trial	Yes NA Clearance Number:	Pending	NO ●
4.3 Vaccine Trial	Yes NA Clearance Number:	Pending	NO ●
4.4 Is conducted in a village led by tribal authority?	Yes Date tribal authority engaged:	Not Applicable ●	NO

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district, i.e. the CEO/District Manager acknowledges to have been consulted on the study

5 Declaration

Declaration by Applicant:

I Mr/Ms/Dr/Prof/Adv. Busisiwe Precious Matiwane agree to submit/present the result of this study back to the CEO/Institution/District.

Estimated date of feedback: 2-Aug-24

To be signed by a relevant CEO/District Manager/Programme Manager/Senior Manager in Mpumalanga Province

Supported / Not Supported

Signature: [signature] Date: 10/05/2021

Name: M E MALAZA

MPUMALANGA PROVINCIAL GOVERNMENT
DEPT OF HEALTH & SOCIAL SERVICES
MATIKWANA HOSPITAL
CHIEF EXECUTIVE OFFICER
10 MAY 2021
PRIVATE BAG X3027, MKHUHLU 1246
EHLANZENI DISTRICT

A duly signed form can be uploaded on the nhrd website by the researcher or emailed to: JerryS@mpuhealth.gov.za or ThembaM@mpuhealth.gov.za

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district.
i.e. the CEO/District Manager acknowledges to have been consulted on the study

health
MPUMALANGA PROVINCE
REPUBLIC OF SOUTH AFRICA

MPUMALANGA
THE PLACE OF THE RISING SUN

No.3, Government Boulevard, Riverside Park, Ext. 2, Mbombela, 1200, Mpumalanga Province
Private Bag X11285, Mbombela, 1200, Mpumalanga Province
Tel I: +27 (13) 766 3429, Fax: +27 (13) 766 3458

Litiko Letemphilo | Departement van Gesondheid | UmNyango WezeMaphilo

Letter of Support (To be signed by relevant Senior Managers/Responsibility Managers)

1. Study Details	
1.1 Name of Applicant	Busisiwe Precious Matiwane
1.2 Contact Number:	(0) 748871071
1.3 Study Title:	Multiple job holding among public sector medical doctors, professional nurses and rehabilitation therapists in Gauteng and Mpumalanga.
1.4 Data collection period to undertake the study:	Start: 08/2021 End: 08/2022

1.5 Provide summary of the study, study area, and how data will be collected (your response should not be more than the space provided:

Introduction
Multiple job holding (MJH) is defined as individuals holding more than one paid job simultaneously. There are knowledge gaps on the nature and determinants of MJH among health professionals in low-and-middle-income countries (LMICs), especially those in Africa. This is also the case in South Africa, where the practice is permissible under certain conditions.

Justification for study
The PhD will generate new knowledge on the Remunerative Work Outside the Public Service (RWOPS) as a regulatory mechanism for MJH among public sector health professionals, the prevalence of MJH, and its contributory factors among medical doctors, professional nurses, and rehabilitation therapists in two South African provinces. The PhD study will use a discrete choice experiment (DCE) that is uncommon in MJH studies, and hence will contribute to methodological innovation. The PhD study will inform health workforce policies or interventions on MJH that could lead to improved health system functioning.

Study aims
The study aims to investigate the experiences, extent of, contributory factors, and regulation of multiple job holding among public sector medical doctors, professional nurses, and rehabilitation therapists in Gauteng and Mpumalanga.

Methodology
The study setting will be 28 public hospitals in Gauteng, and 26 hospitals in Mpumalanga, which will allow for some geographical comparison. The study consists of three main components and will use a combination of qualitative and quantitative methods to answer the research objectives:
1. Key Informant Interviews with key informants from across South Africa
2. In-depth interviews with the three categories of health professionals
3. Health professional survey including a discrete choice experiment with the three groups of health professionals.

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district.
i.e. the CEO/District Manager acknowledges to have been consulted on the study

2. Resources Required from Facility/Sub-district/Community		
2.1 Facility Staff Required to assist with the Study	Yes ● How many: Nurses: Doctors: Space: Other, please specify: HR and HODs to provide lists of staff on duty	NO
2.2 Patients / Researchers' Records/Files	Yes Year: From: To:	NO ●
2.3 Interviewing Patients/ participants at Facilities	Yes ● Interviews with health professionals	NO
2.4 Interviewing Patients/ participants at Home	Yes	NO ●
2.5 Other, please specify:	A room for the interviews and the survey.	

3 Resource flow/benefits to the Provincial Department		
3.1 The research is responsive to which National/Provincial/departmental priority/strategy/research agenda. • State your response:	Management and regulation of moonlighting (multiple job holding) were recognised as important policy priorities in the 5 year Human resource for Health strategy for the health sector. The 2018 Presidential Health Summit highlighted the need to address negative impact of RWOPS in public sector. The 2030 Human Resources for Health Strategy stressed the need for review of current RWOPS policy, including regulation and management.	
3.2 Resource Flow (Are there benefits to Patients/community)	Yes Please list: all potential remedial ideas emanated from research will be taken up for healthcare practice and policy	NO ●
3.3 Resource Flow (Are there benefits to Facility/District)	Yes Please list: to create a linkage between all research stakeholders The PhD study will inform HRH policies or interventions on MJH that will lead to improved health system functioning. The policy makers will in turn inform facilities and districts	NO

4 Availability of Required Clearance/s			
4.1 Ethical Clearance	Yes Provisional ethics Clearance Number:	Pending ●	NO
4.2 Clinical Trial	Yes NA Clearance Number:	Pending	NO ●
4.3 Vaccine Trial	Yes NA Clearance Number:	Pending	NO ●
4.4 Is conducted in a village led by tribal authority?	Yes Date tribal authority engaged:	Not Applicable ●	NO

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district. i.e. the CEO/District Manager acknowledges to have been consulted on the study

5 Declaration

Declaration by Applicant:

I ~~Mr/Ms/Dr/Prof/Adv.~~ Busisiwe Precious Matiwane agree to ~~submit~~/present the result of this study back to the ~~CEO/Institution~~/District.

Estimated date of feedback: 2-Aug-24

To be signed by a relevant CEO/District Manager/Programme Manager/Senior Manager in Mpumalanga Province

Supported / ~~Not Supported~~

REQUEST TO CONDUCT THE STUDY IS SUPPORTED: STUDY TITLE: MALPRACTICE TOP HOLDING AMONG PUBLIC SECTOR MEDICAL DOCTORS, PROFESSIONAL NURSES AND REHABILITATION THERAPISTS IN GAUTENG AND MPUMALANGA

Signature: [signature] Date: 14/05/2021

Name: ROSINA MAKHUBU

DEPARTMENT OF HEALTH
MPUMALANGA PROVINCE
14 MAY 2021
CEO
MAPULANENG HOSPITAL

A duly signed form can be uploaded on the nhrd website by the researcher or emailed to: JerryS@mpuhealth.gov.za or ThembaM@mpuhealth.gov.za

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district. i.e. the CEO/District Manager acknowledges to have been consulted on the study

health
MPUMALANGA PROVINCE
REPUBLIC OF SOUTH AFRICA

MPUMALANGA
THE PLACE OF THE RISING SUN

No.3, Government Boulevard, Riverside Park, Ext. 2, Mbombela, 1200, Mpumalanga Province
Private Bag X11285, Mbombela, 1200, Mpumalanga Province
Tel I: +27 (13) 766 3429, Fax: +27 (13) 766 3458

Litiko Letemphilo | Departement van Gesondheid | UmNyango WezeMaphilo

Letter of Support (To be signed by relevant Senior Managers/Responsibility Managers)

1. Study Details	
1.1 Name of Applicant	Busisiwe Precious Matiwane
1.2 Contact Number:	(0) 748871071
1.3 Study Title:	Multiple job holding among public sector medical doctors, professional nurses and rehabilitation therapists in Gauteng and Mpumalanga.
1.4 Data collection period to undertake the study:	Start: 08/2021 End: 08/2022

1.5 Provide summary of the study, study area, and how data will be collected (your response should not be more than the space provided:

Introduction
Multiple job holding (MJH) is defined as individuals holding more than one paid job simultaneously. There are knowledge gaps on the nature and determinants of MJH among health professionals in low-and-middle-income countries (LMICs), especially those in Africa. This is also the case in South Africa, where the practice is permissible under certain conditions.

Justification for study
The PhD will generate new knowledge on the Remunerative Work Outside the Public Service (RWOPS) as a regulatory mechanism for MJH among public sector health professionals, the prevalence of MJH, and its contributory factors among medical doctors, professional nurses, and rehabilitation therapists in two South African provinces. The PhD study will use a discrete choice experiment (DCE) that is uncommon in MJH studies, and hence will contribute to methodological innovation. The PhD study will inform health workforce policies or interventions on MJH that could lead to improved health system functioning.

Study aims
The study aims to investigate the experiences, extent of, contributory factors, and regulation of multiple job holding among public sector medical doctors, professional nurses, and rehabilitation therapists in Gauteng and Mpumalanga.

Methodology
The study setting will be 28 public hospitals in Gauteng, and 28 hospitals in Mpumalanga, which will allow for some geographical comparison. The study consists of three main components and will use a combination of qualitative and quantitative methods to answer the research objectives:
1. Key Informant Interviews with key informants from across South Africa
2. In-depth interviews with the three categories of health professionals
3. Health professional survey including a discrete choice experiment with the three groups of health professionals.

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district.
i.e. the CEO/District Manager acknowledges to have been consulted on the study

2. Resources Required from Facility/Sub-district/Community		
2.1 Facility Staff Required to assist with the Study	Yes ● How many: Nurses: Doctors: Space: Other, please specify: HR and HODs to provide lists of staff on duty	NO
2.2 Patients / Researchers' Records/Files	Yes Year: From: To:	NO ●
2.3 Interviewing Patients/ participants at Facilities	Yes ● Interviews with health professionals	NO
2.4 Interviewing Patients/ participants at Home	Yes	NO ●
2.5 Other, please specify:	A room for the interviews and the survey.	

3 Resource flow/benefits to the Provincial Department		
3.1 The research is responsive to which National/Provincial/departmental priority/strategy/research agenda. • **State your response:** Management and regulation of moonlighting (multiple job holding) were recognised as important policy priorities in the 5 year Human resource for Health strategy for the health sector. The 2018 Presidential Health Summit highlighted the need to address negative impact of RWOPS in public sector. The 2030 Human Resources for Health Strategy stressed the need for review of current RWOPS policy, including regulation and management.		
3.2 Resource Flow (Are there benefits to Patients/community)	Yes Please list: all potential remedial ideas emanated from research will be taken up for healthcare practice and policy	NO ●
3.3 Resource Flow (Are there benefits to Facility/District)	Yes ● Please list: to create a linkage between all research stakeholders The PhD study will inform HRH policies or interventions on MJH that will lead to improved health system functioning. The policy makers will in turn inform facilities and districts	NO ○

4 Availability of Required Clearance/s			
4.1 Ethical Clearance	Yes Provisional ethics Clearance Number:	Pending ●	NO
4.2 Clinical Trial	Yes NA Clearance Number:	Pending	NO ●
4.3 Vaccine Trial	Yes NA Clearance Number:	Pending	NO ●
4.4 Is conducted in a village led by tribal authority?	Yes Date tribal authority engaged:	Not Applicable ●	NO

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district.
i.e. the CEO/District Manager acknowledges to have been consulted on the study

5 Declaration

Declaration by Applicant:

I ~~Mr/Ms/Dr/Prof/Adv.~~ Busisiwe Precious Matiwane agree to ~~submit~~/present the result of this study back to the ~~CEO/Institution~~/District.

Estimated date of feedback 2-Aug-24

To be signed by a relevant CEO/District Manager/Programme Manager/Senior Manager in Mpumalanga Province

Supported / Not Supported

Signature: _____ **Date:** 17/05/2021

Name: Dr RA Nkuna

DEPARTMENT OF HEALTH
& SOCIAL SERVICES
LYDENBURG HOSPITAL
17 MAY 2021
CEO'S OFFICE

A duly signed form can be uploaded on the nhrd website by the researcher or emailed to: JerryS@mpuhealth.gov.za or ThembaM@mpuhealth.gov.za

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district, i.e. the CEO/District Manager acknowledges to have been consulted on the study

health
MPUMALANGA PROVINCE
REPUBLIC OF SOUTH AFRICA

MPUMALANGA
THE PLACE OF THE RISING SUN

No.3, Government Boulevard, Riverside Park, Ext. 2, Mbombela, 1200, Mpumalanga Province
Private Bag X11285, Mbombela, 1200, Mpumalanga Province
Tel I: +27 (13) 766 3429, Fax: +27 (13) 766 3458

Litiko Letemphilo | Departement van Gesondheid | UmNyango WezeMaphilo

Letter of Support (To be signed by relevant Senior Managers/Responsibility Managers)

1. Study Details	
1.1 Name of Applicant	Busisiwe Precious Matiwane
1.2 Contact Number:	(0) 748871071
1.3 Study Title:	Multiple job holding among public sector medical doctors, professional nurses and rehabilitation therapists in Gauteng and Mpumalanga.
1.4 Data collection period to undertake the study:	Start: 08/2021 End: 08/2022

1.5 Provide summary of the study, study area, and how data will be collected (your response should not be more than the space provided:

Introduction
Multiple job holding (MJH) is defined as individuals holding more than one paid job simultaneously. There are knowledge gaps on the nature and determinants of MJH among health professionals in low-and-middle-income countries (LMICs), especially those in Africa. This is also the case in South Africa, where the practice is permissible under certain conditions.

Justification for study
The PhD will generate new knowledge on the Remunerative Work Outside the Public Service (RWOPS) as a regulatory mechanism for MJH among public sector health professionals, the prevalence of MJH, and its contributory factors among medical doctors, professional nurses, and rehabilitation therapists in two South African provinces. The PhD study will use a discrete choice experiment (DCE) that is uncommon in MJH studies, and hence will contribute to methodological innovation. The PhD study will inform health workforce policies or interventions on MJH that could lead to improved health system functioning.

Study aims
The study aims to investigate the experiences, extent of, contributory factors, and regulation of multiple job holding among public sector medical doctors, professional nurses, and rehabilitation therapists in Gauteng and Mpumalanga.

Methodology
The study setting will be 28 public hospitals in Gauteng, and 28 hospitals in Mpumalanga, which will allow for some geographical comparison. The study consists of three main components and will use a combination of qualitative and quantitative methods to answer the research objectives:
1. Key Informant Interviews with key informants from across South Africa
2. In-depth interviews with the three categories of health professionals
3. Health professional survey including a discrete choice experiment with the three groups of health professionals.

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district, i.e. the CEO/District Manager acknowledges to have been consulted on the study

2. Resources Required from Facility/Sub-district/Community		
2.1 Facility Staff Required to assist with the Study	Yes ● How many: Nurses: Doctors: Space: Other, please specify: HR and HODs to provide lists of staff on duty	NO
2.2 Patients / Researchers' Records/Files	Yes Year: From: To:	NO ●
2.3 Interviewing Patients/ participants at Facilities	Yes ● Interviews with health professionals	NO
2.4 Interviewing Patients/ participants at Home	Yes	NO ●
2.5 Other, please specify:	A room for the interviews and the survey.	

3 Resource flow/benefits to the Provincial Department		
3.1 The research is responsive to which National/Provincial/departmental priority/strategy/research agenda. • **State your response:** Management and regulation of moonlighting (multiple job holding) were recognised as important policy priorities in the 5 year Human resource for Health strategy for the health sector. The 2018 Presidential Health Summit highlighted the need to address negative impact of RWOPS in public sector. The 2030 Human Resources for Health Strategy stressed the need for review of current RWOPS policy, including regulation and management.		
3.2 Resource Flow (Are there benefits to Patients/community)	Yes Please list: all potential remedial ideas emanated from research will be taken up for healthcare practice and policy	NO ●
3.3 Resource Flow (Are there benefits to Facility/District)	Yes ● Please list: to create a linkage between all research stakeholders The PhD study will inform HRH policies or interventions on MJH that will lead to improved health system functioning. The policy makers will in turn inform facilities and districts	NO ○

4 Availability of Required Clearance/s			
4.1 Ethical Clearance	**Yes** Provisional ethics Clearance Number:	**Pending** ●	NO
4.2 Clinical Trial	**Yes** NA Clearance Number:	**Pending**	NO ●
4.3 Vaccine Trial	**Yes** NA Clearance Number:	**Pending**	NO ●
4.4 Is conducted in a village led by tribal authority?	**Yes** Date tribal authority engaged:	Not Applicable ●	NO

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district.
i.e. the CEO/District Manager acknowledges to have been consulted on the study

5 Declaration

Declaration by Applicant:

I Mr/Ms/Dr/Prof/Adv Busisiwe Precious Matiwane agree to submit/present the result of this study back to the CEO/Institution/District

Estimated date of feedback: 2-Aug-24

To be signed by a relevant CEO/District Manager/Programme Manager/Senior Manager in Mpumalanga Province

Supported / Not Supported

THE STUDY IS SUBJECT TO SHARING OF THE FINAL SHARING OF THE ARTICLE.

Signature: [signature] **Date:** 28/05/2024

Name: M G. NDLOVU

MPUMALANGA PROVINCE
DEPT OF HEALTH & SOCIAL DEVELOPMENT
28 MAY 2024
P/BAG X1005 EVANDER 2280

A duly signed form can be uploaded on the nhrd website by the researcher or emailed to: JerryS@mpuhealth.gov.za or ThembaM@mpuhealth.gov.za

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility /district. The CEO/District Manager acknowledges that research is intended in the study

health
MPUMALANGA PROVINCE
REPUBLIC OF SOUTH AFRICA

MPUMALANGA
THE PLACE OF THE RISING SUN

No.3, Government Boulevard, Riverside Park, Ext. 2, Mbombela, 1200, Mpumalanga Province
Private Bag X11285, Mbombela, 1200, Mpumalanga Province
Tel I: +27 (13) 766 3429, Fax: +27 (13) 766 3458

Litiko Letemphilo | Departement van Gesondheid | UmNyango WezeMaphilo

Letter of Support (To be signed by relevant Senior Managers/Responsibility Managers)

1. Study Details	
1.1 Name of Applicant	Busisiwe Precious Matiwane
1.2 Contact Number:	(0) 748871071
1.3 Study Title:	Multiple job holding among public sector medical doctors, professional nurses and rehabilitation therapists in Gauteng and Mpumalanga.
1.4 Data collection period to undertake the study:	Start: 08/2021 End: 08/2022

1.5 Provide summary of the study, study area, and how data will be collected (your response should not be more than the space provided:

Introduction
Multiple job holding (MJH) is defined as individuals holding more than one paid job simultaneously. There are knowledge gaps on the nature and determinants of MJH among health professionals in low-and-middle-income countries (LMICs), especially those in Africa. This is also the case in South Africa, where the practice is permissible under certain conditions.

Justification for study
The PhD will generate new knowledge on the Remunerative Work Outside the Public Service (RWOPS) as a regulatory mechanism for MJH among public sector health professionals, the prevalence of MJH, and its contributory factors among medical doctors, professional nurses, and rehabilitation therapists in two South African provinces. The PhD study will use a discrete choice experiment (DCE) that is uncommon in MJH studies, and hence will contribute to methodological innovation. The PhD study will inform health workforce policies or interventions on MJH that could lead to improved health system functioning.

Study aims
The study aims to investigate the experiences, extent of, contributory factors, and regulation of multiple job holding among public sector medical doctors, professional nurses, and rehabilitation therapists in Gauteng and Mpumalanga.

Methodology
The study setting will be 28 public hospitals in Gauteng, and 28 hospitals in Mpumalanga, which will allow for some geographical comparison. The study consists of three main components and will use a combination of qualitative and quantitative methods to answer the research objectives:
1. Key Informant Interviews with key informants from across South Africa
2. In-depth interviews with the three categories of health professionals
3. Health professional survey including a discrete choice experiment with the three groups of health professionals.

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district.
i.e. the CEO/District Manager acknowledges to have been consulted on the study

2. Resources Required from Facility/Sub-district/Community		
2.1 Facility Staff Required to assist with the Study	Yes ● How many: Nurses: Doctors: Space: Other, please specify: HR and HODs to provide lists of staff on duty	NO
2.2 Patients / Researchers' Records/Files	Yes Year: From: To:	NO ●
2.3 Interviewing Patients/ participants at Facilities	Yes ● Interviews with health professionals	NO
2.4 Interviewing Patients/ participants at Home	Yes	NO ●
2.5 Other, please specify:	A room for the interviews and the survey.	

3. Resource flow/benefits to the Provincial Department		
3.1 The research is responsive to which National/Provincial/departmental priority/strategy/research agenda. • State your response: Management and regulation of moonlighting (multiple job holding) were recognised as important policy priorities in the 5 year Human resource for Health strategy for the health sector. The 2018 Presidential Health Summit highlighted the need to address negative impact of RWOPS in public sector. The 2030 Human Resources for Health Strategy stressed the need for review of current RWOPS policy, including regulation and management.		
3.2 Resource Flow (Are there benefits to Patients/community)	Yes Please list: all potential remedial ideas emanated from research will be taken up for healthcare practice and policy	NO ●
3.3 Resource Flow (Are there benefits to Facility/District)	Yes ● Please list: to create a linkage between all research stakeholders The PhD study will inform HRH policies or Interventions on MJH that will lead to improved health system functioning. The policy makers will in turn inform facilities and districts	NO ○

4 Availability of Required Clearance/s			
4.1 Ethical Clearance	Yes Provisional ethics Clearance Number:	Pending ●	NO
4.2 Clinical Trial	Yes NA Clearance Number:	Pending	NO ●
4.3 Vaccine Trial	Yes NA Clearance Number:	Pending	NO ●
4.4 Is conducted in a village led by tribal authority?	Yes Date tribal authority engaged:	Not Applicable ●	NO

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district.
i.e. the CEO/District Manager acknowledges to have been consulted on the study

5 Declaration

Declaration by Applicant:

I Mr/Ms/Dr/Prof/Adv. Busisiwe Precious Matiwane agree to submit/present the result of this study back to the CEO/Institution/District

Estimated date of feedback: 2-Aug-24

To be signed by a relevant CEO/District Manager/Programme Manager/Senior Manager in Mpumalanga Province

Supported / ~~Not Supported~~

Signature: _____ Date: 2021-05-21

Name: _____

DEPA... HEALTH
2021 -05- 21
ERMELO HOSPITAL

A duly signed form can be uploaded on the nhrd website by the researcher or emailed to: JerryS@mpuhealth.gov.za or ThembaK@mpuhealth.gov.za

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district i.e. the CEO/District Manager acknowledges to have been consulted on the study

health
MPUMALANGA PROVINCE
REPUBLIC OF SOUTH AFRICA

MPUMALANGA

No.3, Government Boulevard, Riverside Park, Ext. 2, Mbombela, 1200, Mpumalanga Province
Private Bag X11285, Mbombela, 1200, Mpumalanga Province
Tel I: +27 (13) 766 3429, Fax: +27 (13) 766 3458

Litiko Letemphilo | Departement van Gesondheid | UmNyango WezeMaphilo

Letter of Support (To be signed by relevant Senior Managers/Responsibility Managers)

1. Study Details	
1.1 Name of Applicant	Busisiwe Precious Matiwane
1.2 Contact Number:	(0) 748871071
1.3 Study Title:	Multiple job holding among public sector medical doctors, professional nurses and rehabilitation therapists in Gauteng and Mpumalanga.
1.4 Data collection period to undertake the study:	Start: 08/2021 End: 08/2022

1.5 Provide summary of the study, study area, and how data will be collected (your response should not be more than the space provided:

Introduction
Multiple job holding (MJH) is defined as individuals holding more than one paid job simultaneously. There are knowledge gaps on the nature and determinants of MJH among health professionals in low-and-middle-income countries (LMICs), especially those in Africa. This is also the case in South Africa, where the practice is permissible under certain conditions.

Justification for study
The PhD will generate new knowledge on the Remunerative Work Outside the Public Service (RWOPS) as a regulatory mechanism for MJH among public sector health professionals, the prevalence of MJH, and its contributory factors among medical doctors, professional nurses, and rehabilitation therapists in two South African provinces. The PhD study will use a discrete choice experiment (DCE) that is uncommon in MJH studies, and hence will contribute to methodological innovation. The PhD study will inform health workforce policies or interventions on MJH that could lead to improved health system functioning.

Study aims
The study aims to investigate the experiences, extent of, contributory factors, and regulation of multiple job holding among public sector medical doctors, professional nurses, and rehabilitation therapists in Gauteng and Mpumalanga.

Methodology
The study setting will be 28 public hospitals in Gauteng, and 28 hospitals in Mpumalanga, which will allow for some geographical comparison. The study consists of three main components and will use a combination of qualitative and quantitative methods to answer the research objectives:
1. Key Informant Interviews with key informants from across South Africa
2. In-depth interviews with the three categories of health professionals
3. Health professional survey including a discrete choice experiment with the three groups of health professionals.

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district.
i.e. the CEO/District Manager acknowledges to have been consulted on the study

2. Resources Required from Facility/Sub-district/Community		
2.1 Facility Staff Required to assist with the Study	Yes ● How many: Nurses: Doctors: Space: Other, please specify: HR and HODs to provide lists of staff on duty	NO
2.2 Patients / Researchers' Records/Files	Yes Year: From: To:	NO ●
2.3 Interviewing Patients/ participants at Facilities	Yes ● Interviews with health professionals	NO
2.4 Interviewing Patients/ participants at Home	Yes	NO ●
2.5 Other, please specify:	A room for the interviews and the survey.	

3 Resource flow/benefits to the Provincial Department		
3.1 The research is responsive to which National/Provincial/departmental priority/strategy/research agenda. • **State your response:** Management and regulation of moonlighting (multiple job holding) were recognised as important policy priorities in the 5 year Human resource for Health strategy for the health sector. The 2018 Presidential Health Summit highlighted the need to address negative impact of RWOPS in public sector. The 2030 Human Resources for Health Strategy stressed the need for review of current RWOPS policy, including regulation and management.		
3.2 Resource Flow (Are there benefits to Patients/community)	Yes Please list: all potential remedial ideas emanated from research will be taken up for healthcare practice and policy	NO ●
3.3 Resource Flow (Are there benefits to Facility/District)	Yes ● Please list: to create a linkage between all research stakeholders The PhD study will inform HRH policies or interventions on MJH that will lead to improved health system functioning. The policy makers will in turn inform facilities and districts	NO ○

4 Availability of Required Clearance/s			
4.1 Ethical Clearance	Yes Provisional ethics Clearance Number:	Pending ●	NO
4.2 Clinical Trial	Yes NA Clearance Number:	Pending	NO ●
4.3 Vaccine Trial	Yes NA Clearance Number:	Pending	NO ●
4.4 Is conducted in a village led by tribal authority?	Yes Date tribal authority engaged:	Not Applicable ●	NO

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district.
i.e. the CEO/District Manager acknowledges to have been consulted on the study

5 Declaration

Declaration by Applicant:

I ~~Mr/Ms/Dr/Prof/Adv.~~ Busisiwe Precious Matiwane agree to ~~submit~~/present the result of this study back to the ~~CEO/Institution~~/District.

Estimated date of feedback: 2-Aug-24

To be signed by a relevant CEO/~~District Manager/Programme Manager/Senior Manager~~ in Mpumalanga Province

~~Supported~~ / Not ~~Supported~~ ON CONDITION THAT PERMISSION FROM THE PROVINCIAL ETHICS COMPONENT IS SOUGHT AND GRANTED.

Signature: _____ **Date:** 2021/05/03

Name: MANDLA MTEMBU KA-MABUZA

MPUMALANGA PROVINCIAL GOVERNMENT
BETHAL HOSPITAL
PRIVATE BAG X1005
03 MAY 2021
CHIEF EXECUTIVE OFFICER
BETHAL HOSPITAL

A duly signed form can be uploaded on the nhrd website by the researcher or emailed to: JerryS@mpuhealth.gov.za or ThembaM@mpuhealth.gov.za

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district. i.e. the CEO/District Manager acknowledges to have been consulted on the study

health
MPUMALANGA PROVINCE
REPUBLIC OF SOUTH AFRICA

MPUMALANGA
THE PLACE OF THE RISING SUN

No 3, Government Boulevard, Riverside Park, Ext. 2, Mbombela, 1200, Mpumalanga Province
Private Bag X11285, Mbombela, 1200, Mpumalanga Province
Tel / +27 (13) 766 3429, Fax. +27 (13) 766 3458

Litiko Letemphilo | Departement van Gesondheid | UmNyango WezeMaphilo

Letter of Support (To be signed by relevant Senior Managers/Responsibility Managers)

1. Study Details	
1.1 Name of Applicant	Busisiwe Precious Matiwane
1.2 Contact Number:	(0) 748871071
1.3 Study Title:	Multiple job holding among public sector medical doctors, professional nurses and rehabilitation therapists in Gauteng and Mpumalanga.
1.4 Data collection period to undertake the study:	Start: 08/2021 End: 08/2022

1.5 Provide summary of the study, study area, and how data will be collected (your response should not be more than the space provided:

Introduction
Multiple job holding (MJH) is defined as individuals holding more than one paid job simultaneously. There are knowledge gaps on the nature and determinants of MJH among health professionals in low-and-middle-income countries (LMICs), especially those in Africa. This is also the case in South Africa, where the practice is permissible under certain conditions.

Justification for study
The PhD will generate new knowledge on the Remunerative Work Outside the Public Service (RWOPS) as a regulatory mechanism for MJH among public sector health professionals, the prevalence of MJH, and its contributory factors among medical doctors, professional nurses, and rehabilitation therapists in two South African provinces. The PhD study will use a discrete choice experiment (DCE) that is uncommon in MJH studies, and hence will contribute to methodological innovation. The PhD study will inform health workforce policies or interventions on MJH that could lead to improved health system functioning.

Study aims
The study aims to investigate the experiences, extent of, contributory factors, and regulation of multiple job holding among public sector medical doctors, professional nurses, and rehabilitation therapists in Gauteng and Mpumalanga.

Methodology
The study setting will be 28 public hospitals in Gauteng, and 28 hospitals in Mpumalanga, which will allow for some geographical comparison. The study consists of three main components and will use a combination of qualitative and quantitative methods to answer the research objectives:
1. Key Informant Interviews with key informants from across South Africa
2. In-depth interviews with the three categories of health professionals
3. Health professional survey including a discrete choice experiment with the three groups of health professionals.

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district i.e. the CEO/District Manager acknowledges to have been consulted on the study

2 Resources Required from Facility/Sub-district/Community		
2.1 Facility Staff Required to assist with the Study	Yes ● How many: Nurses: Doctors: Space: Other, please specify: HR and HODs to provide lists of staff on duty	NO
2.2 Patients / Researchers' Records/Files	Yes Year: From: To:	NO ●
2.3 Interviewing Patients/ participants at Facilities	Yes ● Interviews with health professionals	NO
2.4 Interviewing Patients/ participants at Home	Yes	NO ●
2.5 Other, please specify:	A room for the interviews and the survey.	

3 Resource flow/benefits to the Provincial Department		
3.1 The research is responsive to which National/Provincial/departmental priority/strategy/research agenda. • **State your response:** Management and regulation of moonlighting (multiple job holding) were recognised as important policy priorities in the 5 year Human resource for Health strategy for the health sector. The 2018 Presidential Health Summit highlighted the need to address negative impact of RWOPS in public sector. The 2030 Human Resources for Health Strategy stressed the need for review of current RWOPS policy, including regulation and management.		
3.2 Resource Flow (Are there benefits to Patients/community)	Yes Please list all potential remedial ideas emanated from research will be taken up for healthcare practice and policy	NO ●
3.3 Resource Flow (Are there benefits to Facility/District)	Yes ● Please list: to create a linkage between all research stakeholders The PhD study will inform HRH policies or interventions on MJH that will lead to improved health system functioning. The policy makers will in turn inform facilities and districts	NO ○

4 Availability of Required Clearance/s			
4.1 Ethical Clearance	Yes Provisional ethics Clearance Number:	Pending ●	NO
4.2 Clinical Trial	Yes NA Clearance Number:	Pending	NO ●
4.3 Vaccine Trial	Yes NA Clearance Number:	Pending	NO ●
4.4 Is conducted in a village led by tribal authority?	Yes Date tribal authority engaged:	Not Applicable ●	NO

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district i.e. the CEO/District Manager acknowledges to have been consulted on the study

5 Declaration

Declaration by Applicant:

I Mr/Ms/Dr/Prof/Adv. Busisiwe Precious Matiwane agree to submit/present the result of this study back to the CEO/Institution/District.

Estimated date of feedback: 2-Aug-24

To be signed by a relevant CEO/District Manager/Programme Manager/Senior Manager in Mpumalanga Province

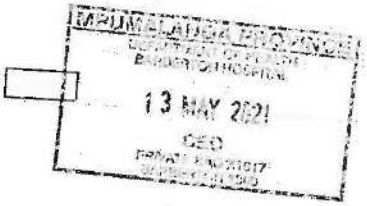
Supported/ Not Supported

The outcome of the research to be shared with the hospital.

Signature: Madonsela

Date: 2021-05-13

Name: Veli Simon Madonsela.



A duly signed form can be uploaded on the nhrd website by the researcher or emailed to: [illegible]@mpuhealth.gov.za or Thembi[illegible]@mpuhealth.gov.za

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district. i.e. the CEO/District Manager acknowledges to have been consulted on the study

MULTIPLE JOB HOLDING AMONG PUBLIC SECTOR MEDICAL DOCTORS, PROFESSIONAL NURSES AND REHABILITATION THERAPISTS IN GAUTENG AND MPUMALANGA

INFORMATION SHEET FOR KEY INFORMANTS

Introduction and background

Good day. My name is Busisiwe Matiwane; I am a PhD student in the School of Public Health at the University of the Witwatersrand. I am conducting this research as part of my doctoral studies.

This research study aims to obtain information on the experiences, extent of, contributing factors and regulation of multiple job holding (also known as dual practice, moonlighting, or Remunerative Work Outside the Public Sector (RWOPS) among medical doctors, professional nurses, and rehabilitation therapists in the public health sector. I am requesting your participation as a key informant because you are a health policy actor and because you have valuable knowledge and experience regarding multiple job holding.

The interview will last for about **45 minutes** and will focus on multiple job holding among health professionals and the RWOPS policy as a regulatory mechanism for MJH.

The questions are not a test, so there are no right or wrong answers. Your opinions and experiences are important. My role as an interviewer is to listen and to understand your point of view, but not to pass judgment. You may refuse to answer any questions that you do not feel comfortable answering. You may also say that you do not know the answer to a question.

Confidentiality

The information that you give in the interview will be kept confidential. The researchers are independent and do not work for any health care authority. Only the researcher and the supervisors will know who has been interviewed. All interviewees will be assigned a code and these codes will be used on the transcribed interviews. The researcher and the supervisors will only know these codes. I assure you that all information you provided will be used only for the study. Everything that you say when answering the questions will be treated as private and confidential. Your name will not be revealed in any written data or report resulting from the study. The answers given by participants will be combined and analysed to look for common themes and experiences. The combined information will be written up as a journal article, which will form part of the PhD thesis.

Consent

The University of the Witwatersrand Human Research Ethics Committee (Medical) has provided ethical approval for the study. We have also obtained permission from the provincial and hospital authorities. You will need to provide informed consent to participate in the study. If you are willing to give your consent and take part, I will appreciate your participation and the information that you are willing to provide.

Benefits and risks of participation

Please note that participation in this study is voluntary and there will be no direct benefits to anyone who participates in the interviews. Similarly, there will be no negative consequences for individuals who do not want to be interviewed. We will not compensate any participant for taking part in the study. During the interview, you have the right to decline to answer any questions that make you feel uncomfortable or to stop the interview at any time. We will adhere to all COVID-19 protocols during data collection.

Recording the interview

I would like to request your permission to voice-record the interview because I cannot write down all your answers quickly enough and might miss some important things that you will say in response to some of the questions that you will be asked if I do not record them. The voice-recordings and notes will remain confidential and your identity will not be disclosed. The recorded interviews will be transcribed and transcripts of interviews will bear the code and not the name of the interviewee. These voice-recordings and transcripts will be kept on a password-protected computer. As per national requirements, the voice-recordings will be destroyed two years after the publication of the research findings.

Contact details

I will be happy to answer any question you have about this study. The contact details for the HREC Chair/ administrator for participants should you wish to direct queries, concerns or complaints regarding the ethical activities surrounding the study are Prof Clem Penny Tel 011 717 2301, or Ms Z Ndlovu Administrative Officer 011 717 2700/1234/1252 zanele.ndlovu@wits.ac.za. If you have questions about the research, you may also contact me as the Principal Researcher or the Research Supervisors:

PhD candidate	**Supervisor**	**Co-supervisor**
Ms. Busisiwe Matiwane	**Professor Laetitia Rispel**	**Dr Duane Blaauw**
School of Public Health	South African Research Chair	Centre for Health Policy School of Public Health
University of the Witwatersrand, Johannesburg	School of Public Health	University of the Witwatersrand, Johannesburg
Phone: +27 74 887 1071	University of the Witwatersrand, Johannesburg	Phone: +27 11-717 3422
Email: busisiwe.matiwane@wits.ac.za	Phone: +27 11-717 2043	Email:duane.blaauw@wits.ac.za
	Email:laetitia.rispel@wits.ac.za	

MULTIPLE JOB HOLDING AMONG PUBLIC SECTOR MEDICAL DOCTORS, PROFESSIONAL NURSES AND REHABILITATION THERAPISTS IN GAUTENG AND MPUMALANGA

INFORMATION SHEET FOR IN-DEPTH INTERVIEWS

Introduction and background

Good day. My name is Busisiwe Matiwane; I am a PhD student in the School of Public Health at the University of the Witwatersrand. I am conducting this research as part of my doctoral studies.

This research study aims to obtain information on the experiences, extent of, contributing factors and regulation of multiple job holding (also known as dual practice, moonlighting or Remunerative Work outside the Public Sector (RWOPS) among medical doctors, professional nurses and rehabilitation therapists in the public health sector. I am requesting your participation as a health professional to provide information on your perceptions and experiences with multiple job holding and the RWOPS policy.

The interview will last for about **45 minutes** and will focus on the extent of the different forms of MJH, the reasons for MJH and your experiences with MJH.

The questions are not a test, so there are no right or wrong answers. Your opinions and experiences are important. My role as an interviewer is to listen and to understand your point of view, but not to pass judgment. You may refuse to answer any questions that you do not feel comfortable answering. You may also say that you do not know the answer to a question.

Confidentiality

The information that you give in the interview will be kept confidential. The researchers are independent and do not work for any health care authority. Only the researcher and the supervisors will know who has been interviewed. All interviewees will be assigned a code and these codes will be used on the transcribed interviews. The researcher and the supervisors will only know these codes. I assure you that all information you provided will be used only for the study. Everything that you say when answering the questions will be treated as private and confidential. Your name will not be revealed in any written data or report resulting from the study. The answers given by participants will be combined and analysed to look for common themes and experiences. The combined information will be written up as a journal article, which will form part of the PhD thesis.

Consent

The University of the Witwatersrand Human Research Ethics Committee (Medical) has provided ethical approval for the study. We have also obtained permission from the provincial and hospital authorities. You will need to provide informed consent to participate in the study. If you are willing to give your consent and take part, I will appreciate your participation and the information that you are willing to provide.

Benefits and risks of participation

Please note that participation in this study is voluntary and there will be no direct benefits to anyone who participates in the interviews. Similarly, there will be no negative consequences for individuals who do not want to be interviewed. We will not compensate any participant for taking part in the study. During the interview, you have the right to decline to answer any questions that make you feel uncomfortable or to stop the interview at any time. We will adhere to all COVID-19 protocols during data collection.

Recording the interview

I would like to request your permission to audio-record the interview because I cannot write down all your answers quickly enough and might miss some important things that you will say in response to some of the questions that you will be asked if I do not record them. The voice-recordings and notes will remain confidential and your identity will not be disclosed.

The recorded interviews will be transcribed and transcripts of interviews will bear the code and not the name of the interviewee. These voice-recordings and transcripts will be kept on a password-protected computer. As per national requirements, the voice-recordings will be destroyed two years after the publication of the research findings.

Contact details

I will be happy to answer any question you have about this study. The contact details for the HREC Chair/ Administrator for participants should you wish to direct queries, concerns or complaints regarding the ethical activities surrounding the study are Professor Clem Penny Tel 011 717 2301, or Ms Z Ndlovu Administrative Officer 011 717 2700/1234/1252 zanele.ndlovu@wits.ac.za. If you have questions about the research, you may also contact me as the Principal Researcher or the Research Supervisors:

PhD candidate	Supervisor	Co-supervisor
Ms. Busisiwe Matiwane	**Professor Laetitia Rispel**	**Dr Duane Blaauw**
School of Public Health	South African Research Chair	Centre for Health Policy School of Public Health
University of the Witwatersrand, Johannesburg	School of Public Health	University of the Witwatersrand, Johannesburg
Phone: +27 74 887 1071	University of the Witwatersrand, Johannesburg	Phone: +27 11-717 3422
Email: busisiwe.matiwane@wits.ac.za	Phone: +27 11-717 2043	Email:duane.blaauw@wits.ac.za
	Email:laetitia.rispel@wits.ac.za	

MULTIPLE JOB HOLDING AMONG PUBLIC SECTOR MEDICAL DOCTORS, PROFESSIONAL NURSES AND REHABILITATION THERAPISTS IN GAUTENG AND MPUMALANGA

INFORMATION SHEET FOR THE HEALTH PROFESSIONALS' SURVEY

Introduction and background

Good day. My name is Busisiwe Matiwane; I am a PhD student in the School of Public Health at the University of the Witwatersrand. I am conducting this research as part of my doctoral studies.

This research study aims to obtain information on the experiences of, extent of, contributing factors and regulation of multiple job holding (also known as dual practice, moonlighting or Remunerative Work Outside the Public Sector (RWOPS) among medical doctors, professional nurses, and rehabilitation therapists in the public health sector. I am requesting your participation as a health professional to provide information on your opinions and experiences with multiple job holding and the RWOPS policy.

The questionnaire will take you about **25 minutes** to complete, and focus on the extent of the different forms of MJH, reasons for MJH and your stated preferences for various incentives and restrictions regarding MJH regulation.

The questions are not a test, so there are no right or wrong answers. Your opinions and experiences are important. You may refuse to answer any questions that you do not feel comfortable answering. You may also say that you do not know the answer to a question.

Confidentiality

The information that you give in the questionnaire will be kept confidential. The researchers are independent and do not work for any health care authority. All questionnaires have a study code. The researcher and the supervisors will only know these codes. I assure you that all information you provided will be used only for the study. Everything that you say when answering the questions will be treated as private and confidential. Your name will not be revealed in any written data or report resulting from the study. The answers given will be analysed and reported as group data. The combined information will be written up as a journal article, which will form part of the PhD thesis.

Consent

The University of the Witwatersrand Human Research Ethics Committee (Medical) has provided ethical approval for the study. We have also obtained permission from the provincial and hospital authorities. You will need to provide informed consent to participate in the study. If you are willing to give your consent and take part, I will appreciate your participation and the information that you are willing to provide.

Benefits and risks of participation

Please note that participation in this study is voluntary and there will be no direct benefits to anyone who participates in the survey. Similarly, there will be no negative consequences for individuals who do not want to participate in the survey. We will not compensate any participant for taking part in the study. You have the right to decline to answer any questions that make you feel uncomfortable or to stop the survey at any time. We will adhere to all COVID-19 protocols during data collection.

Contact details

I will be happy to answer any question you have about this study. The contact details for the HREC Chair/ Administrator for participants should you wish to direct queries, concerns or complaints regarding the ethical activities surrounding the study are Prof Clem Penny Tel 011 717 2301, or Ms Z Ndlovu Administrative Officer 011 717 2700/1234/1252 zanele.ndlovu@wits.ac.za. If you have questions about the research, you may also contact me as the Principal Researcher or the Research Supervisors:

PhD candidate	**Supervisor**	**Co-supervisor**
Ms. Busisiwe Matiwane	**Professor Laetitia Rispel**	**Dr Duane Blaauw**
School of Public Health	South African Research Chair	Centre for Health Policy School of Public Health
University of the Witwatersrand, Johannesburg	School of Public Health	University of the Witwatersrand, Johannesburg
Phone: +27 74 887 1071	University of the Witwatersrand, Johannesburg	Phone: +27 11-717 3422
Email: busisiwe.matiwane@wits.ac.za	Phone: +27 11-717 2043	Email:duane.blaauw@wits.ac.za
	Email:laetitia.rispel@wits.ac.za	

If you agree to participate, I would ask that you please indicate that electronically before the commencement of the survey.

MULTIPLE JOB HOLDING AMONG PUBLIC SECTOR MEDICAL DOCTORS, PROFESSIONAL NURSES AND REHABILITATION THERAPISTS IN GAUTENG AND MPUMALANGA

CONSENT FORM FOR KEY INFORMANT INTERVIEW

I have been given the information sheet on the study entitled: ***Multiple job holding among public sector medical doctors, professional nurses and rehabilitation therapists in Gauteng and Mpumalanga***. I have read and understood the Information sheet and all my questions have been answered satisfactorily.

I understand that the researcher involved in this project will make every effort to ensure confidentiality and that my name will not be used in the thesis and that comments that I make will not be reported back to anybody else.

I understand that it is up to me whether or not I would like to participate in the interview and that there will be no negative consequences if I decide not to participate. I also understand that I do not have to answer any questions that I am uncomfortable with and that I can stop the interview at any time. My refusal to participate will in no way prejudice me**.**

I confirm that I have been given telephone numbers that I may call if I have any questions or concerns about the research.

Participant's signature: _____ Date: _____

Interviewer's signature: _____ Date: _____

MULTIPLE JOB HOLDING AMONG PUBLIC SECTOR MEDICAL DOCTORS, PROFESSIONAL NURSES AND REHABILITATION THERAPISTS IN GAUTENG AND MPUMALANGA

CONSENT FORM TO RECORD KEY INFORMANT INTERVIEW

I have been given the information sheet on the study entitled: ***Multiple job holding among public sector medical doctors, professional nurses and rehabilitation therapists in Gauteng and Mpumalanga***. I have read and understood the Information sheet and all my questions have been answered satisfactorily.

I understand that I can decide whether or not the interview should be voice recorded and that there will be no consequences for me if I do not want the interview to be recorded. I understand that information from the voice recordings will be transcribed and transcripts will be given a code and my name will not be mentioned. I understand that if the discussion is voice recorded, the voice recording will be destroyed two years after the publication of the findings.

I understand that I can ask the person interviewing me to stop the voice recording and to stop the interview altogether, at any time.

Participant's signature: _____ Date: _____

Interviewer's signature: _____ Date: _____

MULTIPLE JOB HOLDING AMONG PUBLIC SECTOR MEDICAL DOCTORS, PROFESSIONAL NURSES AND REHABILITATION THERAPISTS IN GAUTENG AND MPUMALANGA

CONSENT FORM FOR HEALTH PROFESSIONALS IN-DEPTH INTERVIEWS

I have been given the information sheet on the study entitled: ***Multiple job holding among public sector medical doctors, professional nurses and rehabilitation therapists in Gauteng and Mpumalanga***. I have read and understood the Information sheet and all my questions have been answered satisfactorily.

I understand that the researcher involved in this project will make every effort to ensure confidentiality and that my name will not be used in the thesis and that comments that I make will not be reported back to anybody else.

I understand that it is up to me whether or not I would like to participate in the interview and that there will be no negative consequences if I decide not to participate. I also understand that I do not have to answer any questions that I am uncomfortable with and that I can stop answering the questionnaire at any time. My refusal to participate will in no way prejudice me**.** I have been given telephone numbers that I may call if I have any questions or concerns about the research.

Participant's signature: _____ Date: _____

Researcher's signature: _____ Date: _____

MULTIPLE JOB HOLDING AMONG PUBLIC SECTOR MEDICAL DOCTORS, PROFESSIONAL NURSES AND REHABILITATION THERAPISTS IN GAUTENG AND MPUMALANGA

CONSENT FORM TO RECORD THE IN-DEPTH INTERVIEW

I have been given the information sheet on the study entitled: ***Multiple job holding among public sector medical doctors, professional nurses and rehabilitation therapists in Gauteng and Mpumalanga***. I have read and understood the Information sheet and all my questions have been answered satisfactorily.

I understand that I can decide whether or not the interview should be voice recorded and that there will be no consequences for me if I do not want the interview to be recorded. I understand that information from the voice recordings will be transcribed and transcripts will be given a code and my name will not be mentioned. I understand that if the discussion is voice recorded, the voice recording will be destroyed two years after the publication of the findings.

I understand that I can ask the person interviewing me to stop the voice recording and to stop the interview altogether, at any time.

I consent voluntarily for the researcher to record the interview.

Participant's signature: _____ Date: _____

Interviewer's signature: _____ Date: _____

Annexure 10: Electronic consent form for the Health professionals' survey

Survey on multiple job holding (RWOPS) among health professionals

Good day. My name is Busisiwe Matiwane; I am a PhD student in the School of Public Health at the University of the Witwatersrand. As part of my doctoral studies, I am conducting a survey on multiple job holding (MJH-also known as dual practice, moonlighting or Remunerative Work Outside the Public Sector (RWOPS) among medical doctors, professional nurses and rehabilitation therapists in the public health sector. The questions focus on the extent of, and the different forms of MJH, reasons for MJH and your preferences for jobs with different MJH incentives and restrictions.

I am requesting your voluntary participation in the survey, which will take about 20 minutes to complete. Your responses are anonymous and confidential, and there are no personal identifiers. The survey is divided into sections, you need to complete each section to move to the next section, you can go back to previous sections, but once the survey has been submitted you can no longer view the survey.

STATEMENT OF CONSENT

I acknowledge that there are no benefits for survey participation nor penalties for declining participation.

I agree voluntarily to complete the survey.

◯ Yes
◯ No

Annexure 11: List of policy documents and guidelines

RWOPS Legislative framework from the Department of Public Service and Administration (DPSA)

- Public Service Act, 1994
- Public Service Regulation, 2016
- Public Service Amendment Regulation, 2023

RWOPS directives and guidelines

- Public Service Regulations of 1999 - Code of Conduct for Public Servants. 01 July 1999.
- Public Sector Integrity Management Framework. 2013.
- Directive on other remunerative work outside the employee's employment in the relevant department as contemplated in section 30 of the Public Service Act, 1994. 1 November 2016
- Guide on managing other remunerative work in the public service. June 2020.
- Directive on other remunerative work outside the employee's employment in the relevant department as contemplated in section 30 of the Public Service Act, 1994. 21 February 2024

Financial disclosure directives and guidelines

- Directive on the form to be used by members of senior management and head of department to disclose their financial interests 1 January 2018
- Directive of other categories of designated employees to disclose their financial interests and directive form date & financial interests to be declared. June 2021.
- Procedures for assessing and using the eDisclosure system

Public Service Commission 2004

- Remunerative work outside the public service – an investigation undertaken in the Gauteng Provincial Health Sector.

DPSA RWOPS reports

- Report on the implementation of the directive on other remunerative work in the public service. 01 April 2017 – 31 January 2018.
- Report on the implementation of the directive on other remunerative work in the public service. 01 February 2018 – 31 January 2019.
- Report on the implementation of the directive on other remunerative work in the public service. 01 February 2019 – 31 January 2020.
- Report on the implementation of the directive on other remunerative work in the public service. 01 February 2020 – 31 January 2021.
- 01 February 2021 – 31 January 2022 – no report.
- Report on the implementation of the directive on other remunerative work in the public service. 01 February 2022 – 31 January 2023.

Provincial policies and guidelines

- Gauteng Province: Personnel circular minute 41 of 2020 – approval guide on managing other remunerative work in the public service. 30 June 2020.
- Mpumalanga Province: Remunerative work outside the public service policy (RWOPS). 23 August 2019.

Board of Healthcare Funders (BHF)

- Application form

Annexure 12: Interview guide for key informant interviews

INTERVIEW GUIDE FOR KEY INFORMANTS

- **Organisation/Department:** _____
- **Position/Designation:** _____
- **Date of interview:** _____

For office use:

Participant code: _____

Date of interview: _____

Results code:

01=Completed, 02= Respondent not available, 03 = Respondent refused, 04 = Partially completed

05 = Other _____

NB:

Circle all that apply

Write information required on the space provided

This interview schedule serves as a guide to explore MJH among key informants

- **MULTIPLE JOB HOLDING-CONTEXT AND EXPERIENCE**

As you may know, multiple job holding (MJH) is defined as individuals holding more than one paid job simultaneously. Some people call it moonlighting, dual practice or RWOPS, although I recognise that these concepts are not the same. My study focuses on MJH among medical doctors, professional nurses and rehabilitation therapists. I will refer to them as health professionals unless I want to ask about a specific group.

1. Could you share with us your knowledge or experience of multiple job holding among health professionals in South Africa?
   Probe on:
   1.1. The differences among medical doctors, professional nurses, rehabilitation therapists?
   1.2. Is MJH common in your province or hospital?

2. In your opinion:
   1. What are the factors that influence the practice of MJH among these health professionals?
      Probe on:

1. Financial and non-financial factors
2. Organisational factors (health system)
3. Occupational factors (category of the health professional, speciality
4. Environmental factors (working conditions)
5. Individual factors (age, gender, number of dependents)

3. In your opinion:
   3.1. What are the different forms or types of MJH that exist among the three categories of health professionals?
   Probe on:
   - Type of private practice /business

1. POLICY AND REGULATION

I would like to ask you about the RWOPS policy as a regulatory mechanism. As you know, Section 30 of the Public Service Amendment Act makes provision for remunerative work outside the public service (RWOPS), if the relevant authority has given prior approval.

1. What are your views or perspectives on the RWOPS policy as a regulatory mechanism for MJH?
   Probe on:
   - **1.1.** Clarity of legislation?
   - **1.2.** Implementation or enforcement of the policy?
   - **1.3.** The behaviour of health professionals?
   - **1.4.** Evaluation and monitoring of the policy?
   - **1.5.** What could be done to strengthen or improve RWOPS as a regulatory mechanism?

2. Is there a national policy on RWOPS in the health system to give effect to Section 30 of the Public Service Amendment Act?
   Probe:
   - **2.1.** Are there provincial policies (For the person at national)?
   - **2.2.** Is there a provincial policy (For provincial person)?
   - **2.3.** Is there a hospital policy (For the person at the hospital level)?

3. Has there been any review of the RWOPS policy in your province (or hospital)?
   Probe:
   - **3.1.** Are there any reports (national, hospital or department level)?
   - **3.2.** Are there any audits (hospital or department level)?

4. Are there other possible regulatory or management mechanisms for MJH among health professionals?
   Probe on:
   - **4.1.** Human resource policies that need to be developed?
   - **4.2.** Management?

5. What are the factors that would discourage or prevent health professionals from engaging in MJH?

6. In your opinion, what are the pros and cons of MJH?
   - **6.1.** Individual health professional level?
   - **6.2.** Health System level?
   - **6.3.** Impact on service delivery

7. In your opinion:
   - **7.1.** Did Covid-19 affect multiple job holding?

   Probe on:
- Increase or decrease engagement in MJH?
- Create opportunities for MJH

8. Are there any other comments that you wish to make about MJH, RWOPS or regulation?

Thank you very much

INTERVIEW GUIDE FOR THE IN-DEPTH INTERVIEWS

Province: _____	**Age:** DD/MM/YYYY _____
District: _____	**Gender:** _____
Hospital name: _____	
For office use Participant number: _____ Date of interview: _____ **Results code:** **01 = Complete, 02 = Respondent not available, 03 = Respondent refused, 04 = Partially completed,** **05 = other** _____ **NB:** **Circle all that apply** **Write the information required on the space provided**	

This interview schedule serves as a guide to explore MJH among the health professionals

A. MULTIPLE JOB HOLDING-CONTEXT AND EXPERIENCES

As you may know, multiple job holding (MJH) is defined as individuals holding more than one paid job simultaneously. Some people call it moonlighting, dual practice or RWOPS, although I recognise that these concepts are not the same. My study focuses on MJH among medical doctors, professional nurses and rehabilitation therapists. I will refer to them as health professionals unless I want to ask about a specific group.

1. Can you tell me about your job here at the facility?
   - Probe on:
     - Position at the facility
     - Time at the facility and in the current post
     - Department where you work.
     - Hours of work, shifts, standard overtime

2. I understand that you also have other paid jobs, in addition to your main job here. Is that correct? Can you tell me a bit more about your other jobs?
   - Probe on:
     - When did you start doing RWOPS? What made you start?
     - Number of paid jobs
     - Location of work/sector
     - Type of work
     - Flexible work schedule
     - Distribution of total working hours over jobs, when - during core hours or after hours

3. What are your main reasons for having other jobs?
   - Probe on:
     - Most important reasons, other motivations?
       - Financial, non-financial, organisational, occupational, environmental or individual reasons?
     - If the respondent mentions a financial reason
       - What is it a financial necessity for them or was it more about enjoying the extra income or more about providing room for creativity with professional skills?
       - If it was a financial necessity, what was the necessity?
     - Have their expectations been met in their second job (actually earn more money, have better equipment, fulfilling their creativity, etc.)
     - Did anything change concerning your reasons for MJH over time?

4. What are your experiences with having multiple jobs?
   - Probe on:
     - Advantages or disadvantages
     - Satisfaction or dissatisfaction
     - Impact on service delivery?
     - What has changed over time?

5. Tell me about the other medical doctors/professional nurses/rehabilitation therapists that you work with. Do they also have other additional paid jobs?
   - Probe on:
     - How common is the practice of MJH?
     - How do they distribute their time between the two jobs/additional jobs?
     - Do they do the same types of work in other jobs?
     - What other types of private work are common?

6. Do you think RWOPS is a good policy?
   - Probe on:
     - Why or Why not?
     - Their experiences and attitudes towards the RWOPS policy
     - How does it affect service delivery? How can this be better managed?
     - What could be done to improve the policy? Does it need to be stricter or more flexible?
     - Have they applied for RWOPS for their additional jobs?

7. One of the reasons for the RWOPS policy is about keeping health professionals in the public sector. In other words, if you were not allowed to do RWOPS you might leave for the private health sector. Is that true for you?
   - Probe on:
     - Has RWOPS made you stay in public? Would you leave if RWOPS was stopped?
     - Have they considered moving to the private sector completely?
     - Why do you stay in their primary public sector job?

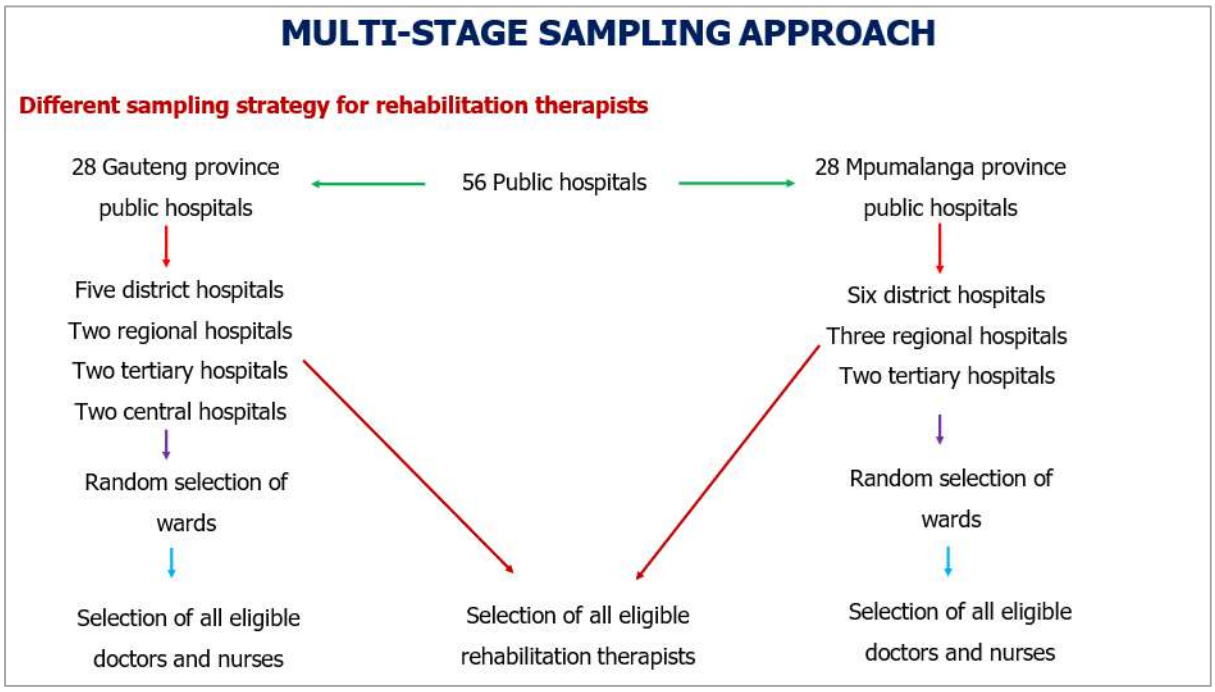
8. What changes would need to be made in your public sector job to stop you from having other private jobs?
    - Probe on:
        - Would they ever really stop private work?
        - Ask about interventions related to their motivations for the second job mentioned before.
        - Possible incentives and likely effectiveness:
            - More pay: how much?
            - Doing more paid overtime in the same facility?
            - Additional benefits and allowances? Which ones?
            - Professional development activities: what, how often?
            - Additional training opportunities: what, how often?
            - Better working conditions, managers, equipment: what could be done in the public health sector?
            - Other?

9. How has Covid-19 affected opportunities or your engagement in MJH?
    - Probe: it increased or decreased opportunities for your engagement in MJH?

10. Is there anything else you would like to add regarding MJH, RWOPS or RWOPS policy?

Thank you very much

Annexure 14a: Multi-stage sampling strategy



Annexure 14b Selection of health professionals at each hospital category in Gauteng and Mpumalanga

	Gauteng			**Mpumalanga**		
Hospital category	**No. of medical doctors**	**No. of professional nurses**	**No. of rehabilitation therapists**	**No. of medical doctors**	**No. of professional nurses**	**No. of rehabilitation therapists**
GP: 5 District MP: 6 District	14 per hospital	13 per hospital		16 per hospital	14 per hospital	
District Total	**70**	**65**	**59**	**96**	**84**	**51**
GP: 2 Regional MP: 3 Regional	35 per hospital	32 per hospital		31 per hospital	28 per hospital	
Regional Total	**70**	**64**	**59**	**93**	**84**	**51**
GP: 2 Tertiary MP: 2 Tertiary	35 per hospital	32 per hospital		46 per hospital	42 per hospital	
Tertiary Total	**70**	**64**	**59**	**92**	**84**	**51**
GP: 2 Central	35 per hospital	32 per hospital		-	-	
Central Total	**70**	**64**	**59**	-	-	-
Grand total	**280**	**257**	**236**	**281**	**252**	**153**

Survey on multiple job holding (RWOPS) among health professionals

Good day. My name is Busisiwe Matiwane; I am a PhD student in the School of Public Health at the University of the Witwatersrand. As part of my doctoral studies, I am conducting a survey on multiple job holding (MJH-also known as dual practice, moonlighting or Remunerative Work Outside the Public Sector (RWOPS) among medical doctors, professional nurses and rehabilitation therapists in the public health sector. The questions focus on the extent of, and the different forms of MJH, reasons for MJH and your preferences for jobs with different MJH incentives and restrictions.

I am requesting your voluntary participation in the survey, which will take about 20 minutes to complete. Your responses are anonymous and confidential, and there are no personal identifiers. The survey is divided into sections, you need to complete each section to move to the next section, you can go back to previous sections, but once the survey has been submitted you can no longer view the survey.

STATEMENT OF CONSENT

I acknowledge that there are no benefits for survey participation nor penalties for declining participation.

I agree voluntarily to complete the survey.

◯ Yes
◯ No

SECTION A: DEMOGRAPHIC INFORMATION

What is your gender?

- ◯ Male
- ◯ Female
- ◯ Other

What is your age? (in years)

_____

In which month where you born?

- ◯ January, March or May
- ◯ February, April or June
- ◯ July, September or November,
- ◯ August, October or December

4 What is your marital status?

- ◯ Single
- ◯ Married/living with long-term partner
- ◯ Divorced/Separated
- ◯ Widowed

5 Do you have children?

- ◯ Yes
- ◯ No

How many children do you have?

_____

6 How many individuals are you supporting financially?
(Includes your own children, spouse,
parents, in-laws, siblings' children)

_____
(If none, put 0)

7 Were you born in South Africa?

- ◯ Yes
- ◯ No

9 Which is your country of birth?

_____

SECTION B: CURRENT EMPLOYMENT

Category of health professional

◯ Medical doctor
◯ Professional nurse
◯ Rehabilitation therapist _____

In which year did you qualify as a medical doctor?

_____ (Year)

In which year did you qualify as a professional nurse?

_____

In which year did you qualify as a rehabilitation therapist?

_____

Did you complete your studies in South Africa?

◯ Yes
◯ No

If not, in which country did you complete your studies?

_____

Have you completed any specialist training?

◯ Yes
◯ No

In which year did you qualify as a specialist?

_____

This date is incorrect. Your year of speciality is before your year of qualification.

Which specialisation do you hold?

- ◯ Anaesthesia
- ◯ Cardiothoracic Surgery
- ◯ Clinical Pharmacology
- ◯ Dermatology
- ◯ Emergency Medicine
- ◯ Family Physician
- ◯ Forensic Pathology
- ◯ Maxillo-Facial and Oral Surgery
- ◯ Medical Genetics
- ◯ Neurology
- ◯ Neurosurgery
- ◯ Nuclear Physician
- ◯ Obstetricians and Gynaecology
- ◯ Ophthalmology
- ◯ Orthopaedic Surgery
- ◯ Otorhinolaryngology
- ◯ Paediatric Surgery
- ◯ Paediatrics
- ◯ Pathology
- ◯ Physician
- ◯ Plastic Surgery
- ◯ Psychiatry
- ◯ Public Health Medicine
- ◯ Radiation Oncology
- ◯ Radiology
- ◯ Sport and Exercise Medicine
- ◯ Surgery
- ◯ Urology
- ◯ Other? _____

Which specialisation do you hold?

- ◯ Child Nursing
- ◯ Community Health Nursing
- ◯ Critical Care Nursing (Adult)
- ◯ Critical Care Nursing (Child)
- ◯ Emergency Nursing
- ◯ Forensic Nursing
- ◯ Health Service Management
- ◯ Infection Prevention and Control Nursing
- ◯ Mental Health Nursing
- ◯ Midwifery
- ◯ Nephrology Nursing
- ◯ Nursing Education
- ◯ Occupational Health Nursing
- ◯ Oncology and Palliative Nursing
- ◯ Ophthalmic Nursing
- ◯ Orthopaedic Nursing
- ◯ Perioperative Nursing
- ◯ Primary Care Nursing
- ◯ Other? _____

Do you have profession-specific speciality?

- ◯ Yes
- ◯ No

If yes, what is it?

_____

Are you the head of department?

◯ Yes
◯ No

In which department or division of the hospital do you work?

◯ All (district hospital)
◯ Anaesthesia
◯ Emergency Medicine/ Casualty
◯ Internal Medicine
◯ Intensive Care Unit
◯ Neurosurgery
◯ Obstetricians and Gynaecology
◯ Ophthalmology
◯ Orthopaedic Surgery
◯ Otorhinolaryngology
◯ Paediatrics
◯ Psychiatry
◯ Radiology and Radiography
◯ Surgery
◯ Other? _____

In which department or division of the hospital do you work?

◯ Adult Intensive Care Unit
◯ Emergency department / Casualty
◯ Maternity ward
◯ Medical ward
◯ Occupational health
◯ Orthopaedic ward
◯ Outpatient department
◯ Paediatrics _____
◯ Psychiatric ward
◯ Surgical ward
◯ Theatre
◯ Other? _____

Do you have a Board of Health Care Funders practice number?

◯ Yes
◯ No

Are you currently registered with an employment recruitment agency?

◯ Yes
◯ No

Are you currently registered with a nursing agency?

◯ Yes
◯ No

SECTION C: CHOICE TASK

Choice task order

_____

Choice task instructions

In this section, I want to try to understand different aspects of public health sector jobs that are important to you. Imagine that the Department of Health has advertised two jobs and that you have to choose between them. You will see that each job offers different advantages and disadvantages. You must indicate which job you would choose by ticking the appropriate box below the job descriptions. You can also choose neither of the jobs on offer.

The two hypothetical public health sector jobs differ in:

Attributes

Descriptions

1. Employment contract

- 5/8 post: 5 working hours per day with overtime not paid
- 8 working hours per day with overtime not paid
- 8 working hours per day with paid overtime offered for 8 hours/week
- 8 working hours per day with paid overtime offered for 16 hours/week

2. Current salary

- No salary increase: The salary remains the same
- 25% increase in salary in the post offered
- 50% increase in salary in the post offered
- 75% increase in salary in the post offered

3. Clinical practice environment · Shortages: staff, drugs, equipment and infrastructure are not accessible and enough

- Sub-optimal: inferior/poor quality
- Availability: Staff, drugs, equipment and infrastructure are accessible and enough
- Good: superior/excellent quality

4. RWOPS conditions · RWOPS prohibited: You are not allowed to do RWOPS

- You have permission to do RWOPS after hours for only 8 hours/week
- You have permission to do RWOPS after hours for only 16 hours/week
- You have permission to do RWOPS during working hours for only 8 hours/week, provided that your work is

done and are available when needed

5. Hospital management · The hospital management does not have the necessary skills to manage RWOPS in the hospital.

· The hospital management has the necessary skills to manage RWOPS in the hospital.

Please note, the salary is the current salary or increase above the current salary for the post offered. So a 25% salary increase in a 5/8 post would be a 25% increase in the current salary for a 5/8 job, not a 25% increase for a full-time post.

You can assume that other characteristics of the jobs not mentioned in the above list are the same for both jobs.

Choice task

- There will be 9 questions with two job choices (Job 1 and Job 2) for each question.
- Indicate which of the two jobs you would choose for each question by ticking the appropriate box.
- Please answer all 9 questions.
- There are no right or wrong answers.
- A sample question is shown on the next page.

Sample choice task

This is an example on how to complete the choice task, to select a job, please click on the appropriate box below your preferred job. Should you want to select a different job then click reset and select another job. If you are not clear about any aspect of the choice task you can go back to the previous page to confirm before proceeding with the proper choice task.

Please note that if there is an empty page after completion of the choice task section, kindly click on the next page to continue with the survey.

Example question: Which of these two public health sector jobs would you choose? Please complete this sample choice task.

Job Characteristics

	Job 1	Job 2	Neither
1. Employment contract	Full-time post with no paid overtime	5/8 post with no paid overtime	
2. Current salary	50% salary increase	25% salary increase	
3. Clinical practice environment	Availability of staff, drugs, equipment and infrastructure result in the provision of good quality health care to patients	Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients	
4. Conditions for RWOPS	RWOPS prohibited	Approved RWOPS allowed, but only after working hours and limited to 16 hours per week.	
5. Hospital management	Sub-optimal management, unable to manage RWOPS in the hospital	Sub-optimal management, unable to manage RWOPS in the hospital	
Which job would you choose?	_____	_____	_____

If you could only choose between the two jobs, which job would you choose? _____ _____

Question 1: Which of these two public health sector jobs would you choose?

Job Characteristics

Job 1

Job 2

Neither

1. Employment contract

Full-time post with 16 hours/week paid overtime

5/8 post with no paid overtime

2. Current salary

75% salary increase

No salary increase

3. Clinical practice environment

Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients

Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients

4. Conditions for RWOPS

RWOPS prohibited

Approved RWOPS allowed during working hours but limited to 8 hours per week

5. Hospital management

Competent management, able to manage RWOPS in the hospital

Sub-optimal management, unable to manage RWOPS in the hospital

Which job would you choose? ____ ____ ____

If you could only choose between the two jobs, which job would you choose? ____ ____

Question 2: Which of these two public health sector jobs would you choose?

Job Characteristics

Job 1

Job 2

Neither

1. Employment contract

5/8 post with no paid overtime

Full-time post with 8 hours/week paid overtime

2. Current salary

No salary increase

75% salary increase

3. Clinical practice environment

Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients

Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients

4. Conditions for RWOPS

Approved RWOPS allowed during working hours but limited to 8 hours per week

Approved RWOPS allowed, but only after working hours and limited to 8 hours per week

5. Hospital management

Sub-optimal management, unable to manage RWOPS in the hospital

Competent management, able to manage RWOPS in the hospital

Which job would you choose? _____ _____ _____

If you could only choose between the two jobs, which job would you choose? _____ _____

Question 3: Which of these two public health sector jobs would you choose?

Job Characteristics

Job 1

Job 2

Neither

1. Employment contract

Full-time post with 16 hours/week paid overtime

Full-time post with no paid overtime

2. Current salary

No salary increase

25% salary increase

3. Clinical practice environment

Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients

Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients

4. Conditions for RWOPS

Approved RWOPS allowed, but only after working hours and limited to 8 hours per week

Approved RWOPS allowed during working hours but limited to 8 hours per week

5. Hospital management

Competent management, able to manage RWOPS in the hospital

Sub-optimal management, unable to manage RWOPS in the hospital

Which job would you choose? _____ _____ _____

If you could only choose between the two jobs, which job would you choose? _____ _____

Question 4: Which of these two public health sector jobs would you choose?

Job Characteristics

Job 1

Job 2

Neither

1. Employment contract

Full-time post with no paid overtime

Full-time post with 16 hours/week paid overtime

2. Current salary

75% salary increase

50% salary increase

3. Clinical practice environment

Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients

Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients

4. Conditions for RWOPS

Approved RWOPS allowed, but only after working hours and limited to 16 hours per week

RWOPS prohibited

5. Hospital management

Sub-optimal management, unable to manage RWOPS in the hospital

Competent management, able to manage RWOPS in the hospital

Which job would you choose? ____ ____ ____

If you could only choose between the two jobs, which job would you choose? ____ ____

Question 5: Which of these two public health sector jobs would you choose?

Job Characteristics

	Job 1	Job 2	Neither
1. Employment contract	Full-time post with 8 hours/week paid overtime	5/8 post with no paid overtime	
2. Current salary	50% salary increase	75% salary increase	
3. Clinical practice environment	Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients	Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients	
4. Conditions for RWOPS	Approved RWOPS allowed during working hours but limited to 8 hours per week	Approved RWOPS allowed, but only after working hours and limited to 16 hours per week	
5. Hospital management	Competent management, able to manage RWOPS in the hospital	Sub-optimal management, unable to manage RWOPS in the hospital	
Which job would you choose?	____	____	____

If you could only choose between the two jobs, which job would you choose? ____ ____

Question 6: Which of these two public health sector jobs would you choose?

Job Characteristics

Job 1

Job 2

Neither

1. Employment contract

5/8 post with no paid overtime

Full-time post with 16 hours/week paid overtime

2. Current salary

50% salary increase

25% salary increase

3. Clinical practice environment

Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients

Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients

4. Conditions for RWOPS

RWOPS prohibited

Approved RWOPS allowed, but only after working hours and limited to 16 hours per week

5. Hospital management

Competent management, able to manage RWOPS in the hospital

Sub-optimal management, unable to manage RWOPS in the hospital

Which job would you choose? ____ ____ ____

If you could only choose between the two jobs, which job would you choose? ____ ____

Question 7: Which of these two public health sector jobs would you choose?

Job Characteristics

Job 1

Job 2

Neither

1. Employment contract

5/8 post with no paid overtime

Full-time post with no paid overtime

2. Current salary

50% salary increase

No salary increase

3. Clinical practice environment

Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients

Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients

4. Conditions for RWOPS

Approved RWOPS allowed, but only after working hours and limited to 16 hours per week

Approved RWOPS allowed, but only after working hours and limited to 8 hours per week

5. Hospital management

Sub-optimal management, unable to manage RWOPS in the hospital

Competent management, able to manage RWOPS in the hospital

Which job would you choose? ____ ____ ____

If you could only choose between the two jobs, which job would you choose? ____ ____

Question 8: Which of these two public health sector jobs would you choose?

Job Characteristics

Job 1

Job 2

Neither

1. Employment contract

Full-time post with 16 hours/week paid overtime

Full-time post with 8 hours/week paid overtime

2. Current salary

No salary increase

75% salary increase

3. Clinical practice environment

Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients

Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients

4. Conditions for RWOPS

Approved RWOPS allowed, but only after working hours and limited to 8 hours per week

RWOPS prohibited

5. Hospital management

Sub-optimal management, unable to manage RWOPS in the hospital

Competent management, able to manage RWOPS in the hospital

Which job would you choose? _____ _____ _____

If you could only choose between the two jobs, which job would you choose? _____ _____

Question 9: Which of these two public health sector jobs would you choose?

Job Characteristics

Job 1

Job 2

Neither

1. Employment contract

Full-time post with no paid overtime

Full-time post with 16 hours/week paid overtime

2. Current salary

75% salary increase

50% salary increase

3. Clinical practice environment

Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients

Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients

4. Conditions for RWOPS

Approved RWOPS allowed, but only after working hours and limited to 16 hours per week

RWOPS prohibited

5. Hospital management

Sub-optimal management, unable to manage RWOPS in the hospital

Competent management, able to manage RWOPS in the hospital

Which job would you choose? ____ ____ ____

If you could only choose between the two jobs, which job would you choose? ____ ____

Question 1: Which of these two public health sector jobs would you choose?

Job Characteristics

Job 1

Job 2

Neither

1. Employment contract

Full-time post with 16 hours/week paid overtime

Full-time post with 8 hours/week paid overtime

2. Current salary

No salary increase

75% salary increase

3. Clinical practice environment

Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients

Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients

4. Conditions for RWOPS

Approved RWOPS allowed, but only after working hours and limited to 8 hours per week

RWOPS prohibited

5. Hospital management

Sub-optimal management, unable to manage RWOPS in the hospital

Competent management, able to manage RWOPS in the hospital

Which job would you choose? ____ ____ ____

If you could only choose between the two jobs, which job would you choose? ____ ____

Question 2: Which of these two public health sector jobs would you choose?

Job Characteristics

Job 1

Job 2

Neither

1. Employment contract

5/8 post with no paid overtime

Full-time post with no paid overtime

2. Current salary

50% salary increase

No salary increase

3. Clinical practice environment

Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients

Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients

4. Conditions for RWOPS

Approved RWOPS allowed, but only after working hours and limited to 16 hours per week

Approved RWOPS allowed, but only after working hours and limited to 8 hours per week

5. Hospital management

Sub-optimal management, unable to manage RWOPS in the hospital

Competent management, able to manage RWOPS in the hospital

Which job would you choose? ____ ____ ____

If you could only choose between the two jobs, which job would you choose? ____ ____

Question 3: Which of these two public health sector jobs would you choose?

Job Characteristics

Job 1

Job 2

Neither

1. Employment contract

5/8 post with no paid overtime

Full-time post with 16 hours/week paid overtime

2. Current salary

50% salary increase

25% salary increase

3. Clinical practice environment

Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients

Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients

4. Conditions for RWOPS

RWOPS prohibited

Approved RWOPS allowed, but only after working hours and limited to 16 hours per week

5. Hospital management

Competent management, able to manage RWOPS in the hospital

Sub-optimal management, unable to manage RWOPS in the hospital

Which job would you choose? ____ ____ ____

If you could only choose between the two jobs, which job would you choose? ____ ____

Question 4: Which of these two public health sector jobs would you choose?

Job Characteristics

	Job 1	Job 2	Neither
1. Employment contract	Full-time post with 8 hours/week paid overtime	5/8 post with no paid overtime	
2. Current salary	50% salary increase	75% salary increase	
3. Clinical practice environment	Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients	Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients	
4. Conditions for RWOPS	Approved RWOPS allowed during working hours but limited to 8 hours per week	Approved RWOPS allowed, but only after working hours and limited to 16 hours per week	
5. Hospital management	Competent management, able to manage RWOPS in the hospital	Sub-optimal management, unable to manage RWOPS in the hospital	

Which job would you choose? ____ ____ ____

If you could only choose between the two jobs, which job would you choose? ____ ____

Question 5: Which of these two public health sector jobs would you choose?

Job Characteristics

Job 1

Job 2

Neither

1. Employment contract

Full-time post with no paid overtime

Full-time post with 16 hours/week paid overtime

2. Current salary

75% salary increase

50% salary increase

3. Clinical practice environment

Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients

Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients

4. Conditions for RWOPS

Approved RWOPS allowed, but only after working hours and limited to 16 hours per week

RWOPS prohibited

5. Hospital management

Sub-optimal management, unable to manage RWOPS in the hospital

Competent management, able to manage RWOPS in the hospital

Which job would you choose? ____ ____ ____

If you could only choose between the two jobs, which job would you choose? ____ ____

Question 6: Which of these two public health sector jobs would you choose?

Job Characteristics

	Job 1	Job 2	Neither
1. Employment contract	Full-time post with 16 hours/week paid overtime	Full-time post with no paid overtime	
2. Current salary	No salary increase	25% salary increase	
3. Clinical practice environment	Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients	Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients	
4. Conditions for RWOPS	Approved RWOPS allowed, but only after working hours and limited to 8 hours per week	Approved RWOPS allowed during working hours but limited to 8 hours per week	
5. Hospital management	Competent management, able to manage RWOPS in the hospital	Sub-optimal management, unable to manage RWOPS in the hospital	
Which job would you choose?	____	____	____

If you could only choose between the two jobs, which job would you choose? ____ ____

Question 7: Which of these two public health sector jobs would you choose?

Job Characteristics

Job 1

Job 2

Neither

1. Employment contract

5/8 post with no paid overtime

Full-time post with 8 hours/week paid overtime

2. Current salary

No salary increase

75% salary increase

3. Clinical practice environment

Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients

Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients

4. Conditions for RWOPS

Approved RWOPS allowed during working hours but limited to 8 hours per week

Approved RWOPS allowed, but only after working hours and limited to 8 hours per week

5. Hospital management

Sub-optimal management, unable to manage RWOPS in the hospital

Competent management, able to manage RWOPS in the hospital

Which job would you choose? _____ _____ _____

If you could only choose between the two jobs, which job would you choose? _____ _____

Question 8: Which of these two public health sector jobs would you choose?

Job Characteristics

Job 1

Job 2

Neither

1. Employment contract

Full-time post with 16 hours/week paid overtime

5/8 post with no paid overtime

2. Current salary

75% salary increase

No salary increase

3. Clinical practice environment

Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients

Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients

4. Conditions for RWOPS

RWOPS prohibited

Approved RWOPS allowed during working hours but limited to 8 hours per week

5. Hospital management

Competent management, able to manage RWOPS in the hospital

Sub-optimal management, unable to manage RWOPS in the hospital

Which job would you choose? ____ ____ ____

If you could only choose between the two jobs, which job would you choose? ____ ____

Question 9: Which of these two public health sector jobs would you choose?

Job Characteristics

	Job 1	Job 2	Neither
1. Employment contract	Full-time post with 8 hours/week paid overtime	5/8 post with no paid overtime	
2. Current salary	50% salary increase	75% salary increase	
3. Clinical practice environment	Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients	Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients	
4. Conditions for RWOPS	Approved RWOPS allowed during working hours but limited to 8 hours per week	Approved RWOPS allowed, but only after working hours and limited to 16 hours per week	
5. Hospital management	Competent management, able to manage RWOPS in the hospital	Sub-optimal management, unable to manage RWOPS in the hospital	
Which job would you choose?	____	____	____

If you could only choose between the two jobs, which job would you choose? ____ ____

Question 1: Which of these two public health sector jobs would you choose?

Job Characteristics

Job 1

Job 2

Neither

1. Employment contract

Full-time post with 8 hours/week paid overtime

5/8 post with no paid overtime

2. Current salary

25% salary increase

75% salary increase

3. Clinical practice environment

Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients

Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients

4. Conditions for RWOPS

Approved RWOPS allowed, but only after working hours and limited to 16 hours per week

Approved RWOPS allowed, but only after working hours and limited to 8 hours per week

5. Hospital management

Competent management, able to manage RWOPS in the hospital

Sub-optimal management, unable to manage RWOPS in the hospital

Which job would you choose? ____ ____ ____

If you could only choose between the two jobs, which job would you choose? ____ ____

Question 2: Which of these two public health sector jobs would you choose?

Job Characteristics

Job 1

Job 2

Neither

1. Employment contract

Full-time post with 8 hours/week paid overtime

Full-time post with 16 hours/week paid overtime

2. Current salary

No salary increase

50% salary increase

3. Clinical practice environment

Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients

Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients

4. Conditions for RWOPS

RWOPS prohibited

Approved RWOPS allowed during working hours but limited to 8 hours per week

5. Hospital management

Sub-optimal management, unable to manage RWOPS in the hospital

Competent management, able to manage RWOPS in the hospital

Which job would you choose? ____ ____ ____

If you could only choose between the two jobs, which job would you choose? ____ ____

Question 3: Which of these two public health sector jobs would you choose?

Job Characteristics

Job 1

Job 2

Neither

1. Employment contract

Full-time post with 16 hours/week paid overtime

5/8 post with no paid overtime

2. Current salary

75% salary increase

25% salary increase

3. Clinical practice environment

Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients

Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients

4. Conditions for RWOPS

Approved RWOPS allowed during working hours but limited to 8 hours per week

Approved RWOPS allowed, but only after working hours and limited to 8 hours per week

5. Hospital management

Sub-optimal management, unable to manage RWOPS in the hospital

Competent management, able to manage RWOPS in the hospital

Which job would you choose? ____ ____ ____

If you could only choose between the two jobs, which job would you choose? ____ ____

Question 4: Which of these two public health sector jobs would you choose?

Job Characteristics

Job 1

Job 2

Neither

1. Employment contract

Full-time post with no paid overtime

Full-time post with 16 hours/week paid overtime

2. Current salary

50% salary increase

25% salary increase

3. Clinical practice environment

Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients

Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients

4. Conditions for RWOPS

Approved RWOPS allowed, but only after working hours and limited to 16 hours per week

RWOPS prohibited

5. Hospital management

Competent management, able to manage RWOPS in the hospital

Sub-optimal management, unable to manage RWOPS in the hospital

Which job would you choose? _____ _____ _____

If you could only choose between the two jobs, which job would you choose? _____ _____

Question 5: Which of these two public health sector jobs would you choose?

Job Characteristics

Job 1

Job 2

Neither

1. Employment contract

5/8 post with no paid overtime

Full-time post with no paid overtime

2. Current salary

25% salary increase

50% salary increase

3. Clinical practice environment

Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients

Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients

4. Conditions for RWOPS

Approved RWOPS allowed during working hours but limited to 8 hours per week

RWOPS prohibited

5. Hospital management

Competent management, able to manage RWOPS in the hospital

Sub-optimal management, unable to manage RWOPS in the hospital

Which job would you choose? _____ _____ _____

If you could only choose between the two jobs, which job would you choose? _____ _____

Question 6: Which of these two public health sector jobs would you choose?

Job Characteristics

Job 1

Job 2

Neither

1. Employment contract

Full-time post with no paid overtime

Full-time post with 8 hours/week paid overtime

2. Current salary

25% salary increase

No salary increase

3. Clinical practice environment

Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients

Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients

4. Conditions for RWOPS

Approved RWOPS allowed, but only after working hours and limited to 8 hours per week

Approved RWOPS allowed, but only after working hours and limited to 16 hours per week

5. Hospital management

Sub-optimal management, unable to manage RWOPS in the hospital

Competent management, able to manage RWOPS in the hospital

Which job would you choose? _____ _____ _____

If you could only choose between the two jobs, which job would you choose? _____ _____

Question 7: Which of these two public health sector jobs would you choose?

Job Characteristics

Job 1

Job 2

Neither

1. Employment contract

Full-time post with 8 hours/week paid overtime

Full-time post with no paid overtime

2. Current salary

75% salary increase

No salary increase

3. Clinical practice environment

Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients

Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients

4. Conditions for RWOPS

Approved RWOPS allowed, but only after working hours and limited to 8 hours per week

Approved RWOPS allowed, but only after working hours and limited to 16 hours per week

5. Hospital management

Sub-optimal management, unable to manage RWOPS in the hospital

Competent management, able to manage RWOPS in the hospital

Which job would you choose? ____ ____ ____

If you could only choose between the two jobs, which job would you choose? ____ ____

Question 8: Which of these two public health sector jobs would you choose?

Job Characteristics

Job 1

Job 2

Neither

1. Employment contract

Full-time post with no paid overtime

Full-time post with 8 hours/week paid overtime

2. Current salary

25% salary increase

50% salary increase

3. Clinical practice environment

Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients

Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients

4. Conditions for RWOPS

RWOPS prohibited

Approved RWOPS allowed during working hours but limited to 8 hours per week

5. Hospital management

Competent management, able to manage RWOPS in the hospital

Sub-optimal management, unable to manage RWOPS in the hospital

Which job would you choose? _____ _____ _____

If you could only choose between the two jobs, which job would you choose? _____ _____

Question 9: Which of these two public health sector jobs would you choose?

Job Characteristics

Job 1

Job 2

Neither

1. Employment contract

Full-time post with no paid overtime

Full-time post with 16 hours/week paid overtime

2. Current salary

50% salary increase

25% salary increase

3. Clinical practice environment

Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients

Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients

4. Conditions for RWOPS

Approved RWOPS allowed, but only after working hours and limited to 16 hours per week

RWOPS prohibited

5. Hospital management

Competent management, able to manage RWOPS in the hospital

Sub-optimal management, unable to manage RWOPS in the hospital

Which job would you choose? _____ _____ _____

If you could only choose between the two jobs, which job would you choose? _____ _____

Question 1: Which of these two public health sector jobs would you choose?

Job Characteristics

	Job 1	Job 2	Neither
1. Employment contract	Full-time post with no paid overtime	Full-time post with 8 hours/week paid overtime	
2. Current salary	25% salary increase	50% salary increase	
3. Clinical practice environment	Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients	Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients	
4. Conditions for RWOPS	RWOPS prohibited	Approved RWOPS allowed during working hours but limited to 8 hours per week	
5. Hospital management	Competent management, able to manage RWOPS in the hospital	Sub-optimal management, unable to manage RWOPS in the hospital	
Which job would you choose?	____	____	____

If you could only choose between the two jobs, which job would you choose? ____ ____

Question 2: Which of these two public health sector jobs would you choose?

Job Characteristics

Job 1

Job 2

Neither

1. Employment contract

Full-time post with 8 hours/week paid overtime

Full-time post with no paid overtime

2. Current salary

75% salary increase

No salary increase

3. Clinical practice environment

Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients

Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients

4. Conditions for RWOPS

Approved RWOPS allowed, but only after working hours and limited to 8 hours per week

Approved RWOPS allowed, but only after working hours and limited to 16 hours per week

5. Hospital management

Sub-optimal management, unable to manage RWOPS in the hospital

Competent management, able to manage RWOPS in the hospital

Which job would you choose? ____ ____ ____

If you could only choose between the two jobs, which job would you choose? ____ ____

Question 3: Which of these two public health sector jobs would you choose?

Job Characteristics

Job 1

Job 2

Neither

1. Employment contract

Full-time post with no paid overtime

Full-time post with 8 hours/week paid overtime

2. Current salary

25% salary increase

No salary increase

3. Clinical practice environment

Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients

Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients

4. Conditions for RWOPS

Approved RWOPS allowed, but only after working hours and limited to 8 hours per week

Approved RWOPS allowed, but only after working hours and limited to 16 hours per week

5. Hospital management

Sub-optimal management, unable to manage RWOPS in the hospital

Competent management, able to manage RWOPS in the hospital

Which job would you choose? _____ _____ _____

If you could only choose between the two jobs, which job would you choose? _____ _____

Question 4: Which of these two public health sector jobs would you choose?

Job Characteristics

	Job 1	Job 2	Neither
1. Employment contract	5/8 post with no paid overtime	Full-time post with no paid overtime	
2. Current salary	25% salary increase	50% salary increase	
3. Clinical practice environment	Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients	Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients	
4. Conditions for RWOPS	Approved RWOPS allowed during working hours but limited to 8 hours per week	RWOPS prohibited	
5. Hospital management	Competent management, able to manage RWOPS in the hospital	Sub-optimal management, unable to manage RWOPS in the hospital	
Which job would you choose?	____	____	____

If you could only choose between the two jobs, which job would you choose? ____ ____

Question 5: Which of these two public health sector jobs would you choose?

Job Characteristics

Job 1

Job 2

Neither

1. Employment contract

Full-time post with no paid overtime

Full-time post with 16 hours/week paid overtime

2. Current salary

50% salary increase

25% salary increase

3. Clinical practice environment

Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients

Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients

4. Conditions for RWOPS

Approved RWOPS allowed, but only after working hours and limited to 16 hours per week

RWOPS prohibited

5. Hospital management

Competent management, able to manage RWOPS in the hospital

Sub-optimal management, unable to manage RWOPS in the hospital

Which job would you choose? _____ _____ _____

If you could only choose between the two jobs, which job would you choose? _____ _____

Question 6: Which of these two public health sector jobs would you choose?

Job Characteristics

Job 1

Job 2

Neither

1. Employment contract

Full-time post with 16 hours/week paid overtime

5/8 post with no paid overtime

2. Current salary

75% salary increase

25% salary increase

3. Clinical practice environment

Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients

Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients

4. Conditions for RWOPS

Approved RWOPS allowed during working hours but limited to 8 hours per week

Approved RWOPS allowed, but only after working hours and limited to 8 hours per week

5. Hospital management

Sub-optimal management, unable to manage RWOPS in the hospital

Competent management, able to manage RWOPS in the hospital

Which job would you choose? _____ _____ _____

If you could only choose between the two jobs, which job would you choose? _____ _____

Question 7: Which of these two public health sector jobs would you choose?

Job Characteristics

	Job 1	Job 2	Neither
1. Employment contract	Full-time post with 8 hours/week paid overtime	Full-time post with 16 hours/week paid overtime	
2. Current salary	No salary increase	50% salary increase	
3. Clinical practice environment	Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients	Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients	
4. Conditions for RWOPS	RWOPS prohibited	Approved RWOPS allowed during working hours but limited to 8 hours per week	
5. Hospital management	Sub-optimal management, unable to manage RWOPS in the hospital	Competent management, able to manage RWOPS in the hospital	

Which job would you choose? ____ ____ ____

If you could only choose between the two jobs, which job would you choose? ____ ____

Question 8: Which of these two public health sector jobs would you choose?

Job Characteristics

Job 1

Job 2

Neither

1. Employment contract

Full-time post with 8 hours/week paid overtime

5/8 post with no paid overtime

2. Current salary

25% salary increase

75% salary increase

3. Clinical practice environment

Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients

Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients

4. Conditions for RWOPS

Approved RWOPS allowed, but only after working hours and limited to 16 hours per week

Approved RWOPS allowed, but only after working hours and limited to 8 hours per week

5. Hospital management

Competent management, able to manage RWOPS in the hospital

Sub-optimal management, unable to manage RWOPS in the hospital

Which job would you choose? _____ _____ _____

If you could only choose between the two jobs, which job would you choose? _____ _____

Question 9: Which of these two public health sector jobs would you choose?

Job Characteristics

Job 1

Job 2

Neither

1. Employment contract

5/8 post with no paid overtime

Full-time post with no paid overtime

2. Current salary

25% salary increase

50% salary increase

3. Clinical practice environment

Shortages of staff, drugs, equipment and infrastructure result in the provision of sub-optimal health care to patients

Availability of staff, drugs, equipment and infrastructure results in the provision of good quality health care to patients

4. Conditions for RWOPS

Approved RWOPS allowed during working hours but limited to 8 hours per week

RWOPS prohibited

5. Hospital management

Competent management, able to manage RWOPS in the hospital

Sub-optimal management, unable to manage RWOPS in the hospital

Which job would you choose? _____ _____ _____

If you could only choose between the two jobs, which job would you choose? _____ _____

SECTION D: OVERTIME

In the past 12 months have you done overtime at this hospital?

- ◯ Yes
- ◯ No

What type of commuted overtime are you currently doing?

- ◯ Group B: between 4 and 8 hours per week
- ◯ Group C: between 9 and 12 hours a week
- ◯ Group D: between 13 and 20 hours per week
- ◯ Group E: more than 20 hours a week

Did you do overtime in the past month?

- ◯ Yes
- ◯ No

In the past month, how many hours of overtime did you work in total? _____

In which department of the hospital did you do the overtime in?

- ◯ All (district hospital)
- ◯ Anaesthesia
- ◯ Emergency Medicine/ Casualty
- ◯ Internal Medicine
- ◯ Intensive Care Unit
- ◯ Neurosurgery
- ◯ Obstetricians and Gynaecology
- ◯ Ophthalmology
- ◯ Orthopaedic Surgery
- ◯ Otorhinolaryngology
- ◯ Paediatrics
- ◯ Psychiatry
- ◯ Radiology and Radiography
- ◯ Surgery
- ◯ Other? _____

In which department of the hospital did you do the overtime in?

- ◯ Adult Intensive Care Unit
- ◯ Emergency department / Casualty
- ◯ Maternity ward
- ◯ Medical ward
- ◯ Orthopaedic ward
- ◯ Outpatient department
- ◯ Paediatrics _____
- ◯ Psychiatric ward
- ◯ Surgical ward
- ◯ Theatre
- ◯ Other? _____

In which department of the hospital did you do the overtime in? - Please select all that apply

☐ Adult Intensive Care Unit
☐ Medical ward
☐ Neonatal ICU
☐ Orthopaedic ward
☐ Paediatric ICU
☐ Surgical ward
☐ Other? _____

Did your overtime hours increase because of Covid-19?

◯ Yes
◯ No

SECTION E: MULTIPLE JOB HOLDING (MJH)

In this section, I would like to ask you about other paid jobs that you might have, in addition to your primary post/job in the public health sector (i.e. at this hospital). The other job (s) could be clinical (i.e. direct patient observation and/or treatment in your private practice, working in a private hospital or working in another public hospital) or non-clinical (e.g. selling products, consultancy, paid research etc.)

In the past 12 months have you had an additional job (in addition to your primary job)?

◯ Yes
◯ No

How many additional jobs do you currently have?

_____
(How many additional jobs? (in numbers))

Did you work more in your additional job(s) because of Covid-19?

◯ Yes
◯ No

Did you start your additional job(s) because of Covid-19?

◯ Yes
◯ No

SECTION F: EXTENT AND FORMS/TYPES OF MULTIPLE JOB HOLDING

In this section, I want you to tell me more about each of your additional jobs.

Please note:

- Clinical work: work related to direct patient observation and/or treatment (locum, working in a practice or hospital)

- Non-clinical: work not related to direct patient observation and/or treatment (academia, consultancy, selling products)

Name of Job 1

_____
((e.g. Private practice, locum, nursing agency, paid research, sales, speaker))

What is the nature of the additional Job 1?

◯ Clinical
◯ Non-clinical

When did you start this additional Job 1?

_____
(Year)

Where is the additional Job 1 located?

◯ Same province
◯ Different province

In this additional Job 1, are you self-employed?

◯ Yes
◯ No

Where do you work? (Clinical job) Select all that apply - Job 1
(Select all that apply)

☐ A private hospital
☐ Client's home (home visits)
☐ Your consulting rooms inside a private hospital
☐ Your consulting rooms outside a private hospital
☐ Other? _____

Where do you work? (Clinical job) Select all that apply - Job 1
(Select all that apply)

☐ A private hospital
☐ Client's home (home visits)
☐ Consulting rooms owned by colleagues inside a private hospital
☐ Consulting rooms owned by colleagues outside a private hospital
☐ Medico-legal
☐ Occupational health
☐ Telemedicine
☐ Other? _____

Where do you work? (Non-clinical job) - Job 1
(Select all that apply)

◯ Educational and academia (lecturing, training, examiner, tutoring)
◯ Phlebotomy
◯ Work unrelated to your health profession (freelance artist, beauty, gifting, sales)
◯ Other? _____

How often do you get paid?

◯ Weekly
◯ Every second week
◯ Monthly
◯ Per consultation/ session

Did you work at this additional Job 1 last month?

◯ Yes
◯ No

How many hours did you work last month?

_____
(Hours include weekends)

ADDITIONAL JOB 2

Name of Job 2

_____
((e.g. Private practice, locum, nursing agency, sales))

What is the nature of the additional Job 2?

◯ Clinical
◯ Non-clinical

When did you start the additional Job 2?

_____
(Year)

Where is the additional Job 2 located?

◯ Same province
◯ Different province

In this additional Job 2, are you self-employed?

◯ Yes
◯ No

Where do you work? (Clinical job) Select all that apply - Job 2
(Select all that apply)

☐ A private hospital
☐ Client's home (home visits)
☐ Your consulting rooms inside a private hospital
☐ Your consulting rooms outside a private hospital
☐ Other? _____

Where do you work? (Clinical job) Select all that apply - Job 2
(Select all that apply)

☐ A private hospital
☐ Client's home (home visits)
☐ Consulting rooms owned by colleagues inside a private hospital
☐ Consulting rooms owned by colleagues outside a private hospital
☐ Medico-legal
☐ Occupational health
☐ Telemedicine
☐ Other? _____

Where do you work? (Non-clinical job) - Job 2
(Select all that apply)

◯ Educational and academia (lecturing, training, examiner, tutoring)
◯ Phlebotomy
◯ Work unrelated to your health profession (freelance artist, beauty, gifting, sales)
◯ Other? _____

How often do you get paid? - Job 2

◯ Weekly
◯ Every second week
◯ Monthly
◯ Per consultation/session

Did you work at this additional Job 2 last month?

◯ Yes
◯ No

How many hours did you work last month? - Job 2

_____
(Hours include weekends)

ADDITIONAL JOB 3

Name of Job 3

_____
((e.g. Private practice, locum, nursing agency, sales))

What is the nature of the additional Job 3?

◯ Clinical
◯ Non-clinical

When did you start the additional Job 3?

_____
(Year)

Where is the additional Job 3 located?

◯ Same province
◯ Different province

In this additional Job 3, are you self-employed?

◯ Yes
◯ No

Where do you work? (Clinical job) Select all that apply - Job 3
(Select all that apply)

☐ A private hospital
☐ Client's home (home visits)
☐ Your consulting rooms inside a private hospital
☐ Your consulting rooms outside a private hospital
☐ Other? _____

Where do you work? (Clinical job) Select all that apply - Job 3
(Select all that apply)

☐ A private hospital
☐ Client's home (home visits)
☐ Consulting rooms owned by colleagues inside a private hospital
☐ Consulting rooms owned by colleagues outside a private hospital
☐ Medico-legal
☐ Occupational health
☐ Telemedicine
☐ Other? {other_form_work_clini_3a}

If other, please specify - Job 3

_____

Where do you work? (Non-clinical job) - Job 3
(Select all that apply)

◯ Educational and academia (lecturing, training, examiner, tutoring)
◯ Phlebotomy
◯ Work unrelated to your health profession (freelance artist, beauty, gifting, sales)
◯ Other? _____

How often do you get paid? - Job 3

- ◯ Weekly
- ◯ Every second week
- ◯ Monthly
- ◯ Per consultation/ session

Did you work at this additional Job 3 last month?

- ◯ Yes
- ◯ No

How many hours did you work last month? - Job 3

_____
(Hours include weekends)

ADDITIONAL JOB 4

Name of Job 4

_____
((e.g. Private practice, locum, nursing agency, sales))

What is the nature of the additional Job 4?

◯ Clinical
◯ Non-clinical

When did you start the additional Job 4?

_____
(Year)

Where is the additional Job 4 located?

◯ Same province
◯ Different province

In this additional Job 4, are you self-employed?

◯ Yes
◯ No

Where do you work? (Clinical job) Select all that apply - Job 4
(Select all that apply)

☐ A private hospital
☐ Client's home (home visits)
☐ Your consulting rooms inside a private hospital
☐ Your consulting rooms outside a private hospital
☐ Other? _____

Where do you work? (Clinical job) Select all that apply - Job 4
(Select all that apply)

☐ A private hospital
☐ Client's home (home visits)
☐ Consulting rooms owned by colleagues inside a private hospital
☐ Consulting rooms owned by colleagues outside a private hospital
☐ Medico-legal
☐ Occupational health
☐ Telemedicine
☐ Other? _____

Where do you work? (Non-clinical job) - Job 4
(Select all that apply)

◯ Educational and academia (lecturing, training, examiner, tutoring)
◯ Phlebotomy
◯ Work unrelated to your health profession (freelance artist, beauty, gifting, sales)
◯ Other? _____

How often do you get paid? - Job 4

◯ Weekly
◯ Every second week
◯ Monthly
◯ Per consultation/ session

Did you work at this additional Job 4 last month?

◯ Yes
◯ No

How many hours did you work last month? - Job 4

_____
(Hours include weekends)

SECTION G: REASONS FOR MULTIPLE JOB HOLDING

Why do you engage in an additional job/s?

Please choose your TOP THREE REASONS for having an additional job(s) and rank the reasons from one to three. One being the most important to you and three being the least important to you. Please note that you can only choose three options.

		1st most important	2nd most important	3rd most important
1	Coping strategy	○	○	○
2	Opportunity for growth/ career pathing	○	○	○
3	Job variety offered by the additional job	○	○	○
4	Flexibility offered by the additional job	○	○	○
5	Job fulfilment	○	○	○
6	Too much free time	○	○	○
7	Test out private sector work	○	○	○
8	Earn money from my passion project (hobby)	○	○	○
9	Being able to provide quality services to clients	○	○	○
10	Maintain my skills	○	○	○
11	Availability of resources in the additional job	○	○	○
12	Supplement my salary (extra cash)	○	○	○
13	Prestige of the additional job	○	○	○
14	Boredom in primary job	○	○	○
15	There is a demand for my skills	○	○	○
16	Be my own boss	○	○	○
17	Build clientele	○	○	○
18	Get exposure to a different sector	○	○	○
19	Learn new skills	○	○	○

Total score why mjh

_____

Please complete the question. You need to choose three options.

Do you have any other reasons for having an additional job?

○ Yes
○ No

If other, please specify.

What are the top three financial reasons for having an additional job (s)?

Please choose your TOP THREE REASONS and rank the reasons from one to three. One being the most important to you and three being the least important to you. Please note that you can only choose three options.

		1st most important	2nd most important	3rd most important
1	Support my extended family	◯	◯	◯
2	Pay off debts	◯	◯	◯
3	Generate wealth	◯	◯	◯
4	Financial freedom	◯	◯	◯
5	Improve my standard of living/ lifestyle	◯	◯	◯
6	Insufficient government salary	◯	◯	◯
7	Support immediate family	◯	◯	◯
8	Fund my studies/courses	◯	◯	◯
9	Educate my children/others	◯	◯	◯

Total score suppl sal

_____

Please complete the question. You need to choose three options.

Do you have any other reasons for supplementing your government salary?

◯ Yes
◯ No

If other, please specify.

_____

SECTION H: REASONS FOR STAYING IN THE PUBLIC SECTOR

What are the TOP THREE REASONS for staying your public sector job?

Please choose your TOP THREE REASONS and rank them from one to three. One being the most important to you and three being the least important to you. Please note that you can only choose three options.

		1st most important	2nd most important	3rd most important
1	Access to training opportunities (CPD seminar, specialisation)	○	○	○
2	Competitive government salary	○	○	○
3	Job is fulfilling	○	○	○
4	Provides good credit score	○	○	○
5	Flexible working hours	○	○	○
6	Relationship I have with my colleagues	○	○	○
7	Fear of leaving government job	○	○	○
8	Additional job(s) not making enough money	○	○	○
9	Career growth	○	○	○
10	Guaranteed salary	○	○	○
11	Provides paid benefits (sick leave, pension, etc.)	○	○	○
12	Provides research opportunities	○	○	○
13	Work in a team	○	○	○
14	Help/serve poor communities	○	○	○
15	Able to teach and train (academia)	○	○	○
16	Not easy to lose a government job	○	○	○
17	Improve clinical skills	○	○	○
18	Job insecurity in additional job	○	○	○
19	Pays high overtime rates	○	○	○
20	Government bursary obligations	○	○	○

Total score reason public _____

Please complete the question. You need to choose three options.

Do you have any other reasons for staying the public sector?

○ Yes
○ No

If other, please specify.

_____



Fieldwork Manual

Multiple job holding among medical doctors, professional nurses and rehabilitation therapists in Gauteng and Mpumalanga

July 2022

1. Introduction

- This fieldwork manual describes the data collection procedure for my PhD research study. This means that I am the principal investigator (PI) for the study.
- The study focuses on **multiple job holding among public sector medical doctors, professional nurses and rehabilitation therapists in Gauteng and Mpumalanga.**
- We are doing the MJH survey because there is limited information available in South Africa on multiple job holding among medical doctors, professional nurses and rehabilitation therapists.
- The fieldwork manual serves as a guide for surveying the three categories of health professionals at health facilities in the two provinces.
- This manual sets out the procedures for the MJH survey among these three groups of health professionals.
- All the members of the MJH research team (i.e. the PI and fieldworkers) must know all the aspects of the study procedure manual in detail. Each team member must follow the manual to ensure the success of the study.
- Any deviation from the study procedure manual should be communicated immediately to the PI, **Ms. Busisiwe Matiwane (074 887 1071)**.

2. Ethics and maintaining confidentiality

In this section, we list the steps that have and must be taken to ensure and maintain an ethical approach to the PhD study.

1. The PI has obtained approval from the Wits Human Research Ethics Committee (Medical), the Gauteng Provincial Health Research and Ethics Committee and the Mpumalanga Provincial Health Research and Ethics Committee. Permissions were obtained from the relevant health facilities in Gauteng and Mpumalanga provinces.
2. Participants should be informed that their participation in this study is strictly voluntary and that they are free to withdraw from the study at any time.
    a. Each team member should ensure that informed consent is obtained.
    b. Please give the participants the detailed information sheet to read or ask them whether you should summarise the contents of the information sheet.
    c. Participants have the right to refuse to answer any questions that make them uncomfortable.
    d. The information sheet has the name and telephone number of the Ethics Committee, and the PI if any participant has any questions about the study.
3. To ensure confidentiality and anonymity the survey is conducted electronically using a self-administered questionnaire on the REDCap software.
    a. Consent forms are captured electronically on REDCap.

b. The survey is anonymous - no names or signatures are required
c. REDCap will generate a unique participant number for each survey participant

4. All study data will be kept in a secure, password-protected computer.
5. The PI and fieldworkers should address all participant questions that arise.
6. The research team should ensure that all survey documents and information are kept safe and not viewed by unauthorised persons.

Remember

- ✓ **Professional behaviour of the research team is always critical.**
- ✓ **Confidentiality, privacy and respect for participants is not negotiable and must be adhered to.**

3. Roles and duties

3.1. Principal investigator

a. Provide leadership of the overall study, including the introduction of the research team at each hospital.
b. Training of fieldworkers to ensure that they are familiar with the procedure manual and study.
c. Planning of fieldwork schedules including setting up appointments for visits at the relevant health facilities in Gauteng and Mpumalanga.
d. Assigning fieldworkers to different units or departments at the health facilities.
e. Ensuring that fieldwork operates smoothly and according to schedule.
f. Quality control and assurance.
g. Troubleshooting and resolving problems or challenges

3.2. Fieldworkers

a. Ensure familiarity and knowledge of all aspects of the MJH survey
b. Assist the PI with surveying medical doctors, professional nurses, and rehabilitation therapists in the 22 selected hospitals in GP and MP.
c. The fieldworker will be responsible for the following during fieldwork
    i. Ensure that fieldwork equipment and fieldwork documents required for fieldwork are always ready.
    ii. Assist with recruitment of health professionals
    iii. Ensure informed consent from selected health professionals
    iv. Encourage the relevant health professionals to participate in the survey and complete the survey.
    v. Setting up appointments with relevant health professionals for an appropriate time to survey if the participants are unable to participate when approached.

vi. Ensure all the sampled health professionals in the designated unit or department complete the survey.
vii. Keep a record of all the health professionals surveyed in the designated unit or department.
viii. Aim to achieve a 100% response rate among participating health professionals
ix. Ensure that the PI is kept abreast of any refusals and/or challenges.

3.2.1. Participation in training

All fieldworkers are required to take part in the four-day training sessions from **Monday 27 June 2022** until **Thursday 30 June 2022**. During the training sessions, all fieldworkers are expected to be punctual and participate in all the training activities.

The purpose of the training sessions is to ensure that all the research team members know the following:

a. The aims of the MJH study
b. The outline of the SAQ and the different sections of the questionnaire
c. Ethical conduct and professionalism
d. Scheduling appointments with the participants who are unable to complete the survey when you approach them.
e. Administering the survey on the tablet using the REDCap link and the REDCap App
f. Save and transfer any records completed on the REDCap App to the REDCap server
g. Approaching and establishing rapport during fieldwork
h. Managing materials needed for fieldwork
i. Handling and dealing with challenges during fieldwork
j. Assisting health professionals who encounter difficulties with the tablet or Wi-Fi access

4. Fieldwork planning

Please note:

a. The PI has mapped the distance between health facilities in Gauteng and Mpumalanga.
b. The research team will meet at the Wits Public Health Building and travel together to the selected hospitals in GP and MP.
c. The research team should report to the CEO or chairperson of the ethics/research committee upon arrival at the sampled hospitals.

4.1 Commencement of fieldwork

a. Data collection will begin on **Monday 4 July 2022** in Mpumalanga province at the district hospitals.

b. You should be ready to travel to and sleepover in Mpumalanga for a week and should communicate with the project manager, **Mr. Serumula "Solly" Siema** and PI should any unforeseen circumstance prevent you from travelling.

4.2 Fieldwork conduct

a. It is important to be polite, friendly and professional at all times.
b. On arrival at the facility, the research team should report to the chief executive officer (CEO) and/or the chairperson of the hospital research committee (as indicated on the ethics approval letter) and the PI will explain the survey.
c. Our approach and appearance as the research team is important, as it will establish the initial impression.
d. Please wear comfortable clothing and shoes.

4.3 Fieldwork tools and materials

On the day of the survey, the research team should have the following items:

a. Name tags for identification purposes /Wits staff cards
b. Masks and sanitizers
c. Letters of authorization printed documents for each province (Wits Ethics approval letter, Provincial Ethics approval letter and hospital approval or permission letters)
d. Fieldwork manual
e. List of hospitals with the physical address/GPS coordinates and contact details
f. List of selected clinical departments/units and number of health professionals required at the relevant hospital
g. Refusal log sheets and email requests for survey link sheets
h. Functional and charged tablets with the survey link shortcut on the screen and passwords for the REDCap App should there be no connectivity at the hospital.
i. Tablet chargers, power bank and a multi-plug.
j. Charged Wi-Fi routers
k. Pencil, eraser, and a pen for filling out the hospital lists.
l. Small gifts (black pens) to say thank you to health professionals after participation (note-the health professionals must not be aware of these gifts before the start of the survey)

5. Fieldwork sites

The survey will take place in 22 selected public hospitals in Gauteng and Mpumalanga, eleven in each province. Private hospitals and specialized hospitals (TB and psychiatric hospitals) are excluded. **Table 1** shows the 22 selected hospitals in GP and MP.

5.1. Hospitals to be visited in the two provinces

Table 1: Number of hospitals in each province per hospital category and district

	Gauteng Hospitals	Mpumalanga Hospitals
Hospital category	**Selected**	**Selected**
1. District hospital	5	6
2. Regional hospital	2	3
3. Tertiary hospital	2	2
4. Central hospital	2	0
Total	11	**11**

5.2. Participants required in each hospital

Table 2: Participants required at each hospital category and in each Province

	Gauteng			Mpumalanga		
Hospital category	**No. of medical doctors**	**No. of professional nurses**	**No. of rehab therapists**	**No. of medical doctors**	**No. of professional nurses**	**No. of rehab therapists**
GP: Five District MP: Six District	14 per hospital	13 per hospital		16 per hospital	14 per hospital	
District Total	**70**	**65**	**59**	**96**	**84**	**51**
GP: Two Regional MP: Three Regional	35 per hospital	32 per hospital		31 per hospital	28 per hospital	
Regional Total	**70**	**64**	**59**	**93**	**84**	**51**
GP: Two Tertiary MP: Two Tertiary	35 per hospital	32 per hospital		46 per hospital	42 per hospital	
Tertiary Total	**70**	**64**	**59**	**92**	**84**	**51**
GP: Two Central	35 per hospital	32 per hospital		-	-	
Central Total	**70**	**64**	**59**	-	-	-
Grand total	**280**	**257**	**236**	**281**	**252**	**153**

6. Procedure at big hospitals (central, tertiary and regional hospitals)

Introductions to the hospital management and clinical head of departments (HODs)

a. The PI will explain the study to the CEO or chairperson of the research chair
b. After explaining the study, the CEO may refer the research team to the head of departments (HODs). This may vary per hospital; however, the research team must enlist the support and cooperation of the [clinical] HODs.
c. The research team will be introduced to the following people:
    i. Head of departments (HOD) of the chosen medical disciplines
    ii. Nursing service manager and HODs of the chosen units
    iii. Clinical support and therapeutic services manager (also known as the allied manager) and HODs for :
        - Physiotherapy
        - Occupational therapy
        - Speech therapy and audiology

d. Each fieldworker will be assigned a department or unit after being introduced to the clinical HODs.

e. When meeting the departmental managers in your designated clinical departments thank them for their time and assistance as shown in **script 1.** Stress the importance of the study in generating information on multiple job holding (dual practice, moonlighting or RWOPS) among medical doctors, professional nurses and rehabilitation therapists.

Script 1: Introduction to departmental managers

Hello, my name is _____ and I am a fieldworker for a study on multiple job holding. I am pleased to meet you. Thanks for meeting with us today. We are doing a study on multiple job holding (also known as dual practice, moonlighting, or RWOPS) among medical doctors, professional nurses, and rehabilitation therapists in the public health sector. Our focus is on the two provinces of Gauteng and Mpumalanga. Participation in the study is voluntary, but we want to encourage maximum participation. We are interested in permanently employed medical doctors, professional nurses and rehabilitation therapists. We will make sure that we do not interfere with the normal functioning of the three categories of health professionals and the departments/units. If necessary, we will stay here for the whole day, to select the most convenient time to get the survey done.

6.1.1. Clinical units and health professionals required at big health facilities

Table 3: List of clinical units and health professionals required at central hospitals

Department	Ward number	No. Drs. required	No. of Drs. obtained	Department	No. of PNs required	No. of PNs obtained	Department	No. of rehab required	No. of rehab obtained
Anaesthesiology		12		**Theatre**	11		**Physiotherapy**	All	
Obstetrics and Gynaecology		12		**Maternity**	11				
Paediatrics		12		**Paediatrics**	11		**Occupational Therapy**	All	
Internal Medicine		12		**Medical wards**	11				
Surgery		12		**Surgical wards**	11		**Speech therapy and audiology**	All	
Orthopaedics		12		**Orthopaedic wards**	11				
Grant total		**72**		**Grand Total**	**66**		**Grand Total**	**59**	

Table 4: List of clinical units and required health professionals at regional hospitals

Department	Ward number	No. Drs. required	No. of Drs. obtained	Department	No. of PNs required	No. of PNs obtained	Department	No. of rehab required	No. of rehab obtained
Anaesthesiology		6		Theatre	6		Physiotherapy	All	
Obstetrics and Gynaecology		6		Maternity	6				
Paediatrics		6		Paediatrics	6		Occupational Therapy	All	
Internal Medicine		6		Medical wards	6				
Surgery		6		Surgical wards	6		Speech therapy and audiology	All	
Orthopaedics		6		Orthopaedic wards	6				
Grant total		36		Grand Total	36		Grand Total	59	

Table 5: List of clinical units and health professionals required at tertiary hospitals

Department	Ward number	No. Drs. required	No. of Drs. obtained	Department	No. of PNs required	No. of PNs obtained	Department	No. of rehab required	No. of rehab obtained
Anaesthesiology		6		Theatre	6		Physiotherapy	All	
Obstetrics and Gynaecology		6		Maternity	6				
Paediatrics		6		Paediatrics	6		Occupational Therapy	All	
Internal Medicine		6		Medical wards	6				
Surgery		6		Surgical wards	6		Speech therapy and audiology	All	
Orthopaedics		6		Orthopaedic wards	6				
Grant total		36		Grand Total	36		Grand Total	59	

6.2. Procedure for recruitment of the health professionals

The fieldworkers and the PI will work together to recruit health professionals at the selected hospitals.

A. **Eligibility criteria for the health professionals**

1. **Inclusion criteria**: Permanently employed medical doctors, professional nurses, and rehabilitation therapists:
    a. **Medical doctors:** medical officers and medical specialists
    b. **Professional nurses:** registered nurses with and without speciality
    c. **Rehabilitation therapists**: physiotherapists, occupational therapists, audiologists, speech therapists, speech therapists and audiologists.

Three categories of rehabilitation therapists

1. Physiotherapists
2. Occupational therapists
3. Speech therapists and audiologists
   - ✓ Audiologist
   - ✓ Speech therapist and audiologists (dual profession)
   - ✓ Speech therapists

2. **Exclusion criteria:**
   a. Health professionals in their internship and community service, because they are not allowed to engage in MJH.
   b. Registrars (specialists in training) because they are postgraduate students.
   c. The chief executive officers and nursing service managers because their jobs are administrative.
   d. Health professionals who work as assistants

6.3. Procedure for recruitment of the health professionals at central, tertiary and regional hospitals

6.3.1. Recruiting medical doctors

a. In each selected clinical department, the PI will explain the study to the HODs and ask them for an appropriate time to survey the permanently employed medical doctors.
b. The PI will ask the HOD where the doctors are stationed on the days that the research team are visiting the hospital.
c. The PI will inform the HODs of the number of medical doctors required in each clinical department.
d. In theatre and intensive care units (ICUs), the same approach is used
   i. In theatre, introductions will be made to the doctor in charge or the head of anaesthesia
   ii. In ICU introductions will be made to the doctor in charge or HOD
   iii. In some hospitals, we may be allowed to survey the medical doctors in the tea room or change room

6.3.2. Recruiting professional nurses

a. In each selected clinical department, ask the HODs for the appropriate time to survey the permanently employed professional nurses and make appointments with the professional nurses.
b. Inform the HODs of the number of permanently employed professional nurses required in each department and they may assist you in locating the professional nurses
c. Each clinical department has several wards depending on the hospital category, note down the wards and visit each ward

d. In each ward report to the matron/sister in charge or unit manager and ask them to assist you in locating permanently employed professional nurses.
e. In theatre and intensive care units (ICUs), the same approach is used.
    i. In theatre, introductions will be made to the matron/sister in charge or unit manager
    ii. In ICU introductions will be made to the matron/sister in charge or unit manager
    iii. In some hospitals, you may be allowed to survey the professional nurses in the tea room or change room
    iv. You may be asked to don boots, a cap and a theatre gown in some instances to gain access to the professional nurses in theatre.
    v. In other instances, you may have to sit in the tearoom or change rooms and approach the professional nurses as they come for a short break.

6.3.3. Recruiting rehabilitation therapists

a. All rehabilitation therapists who meet the inclusion criteria will be eligible to participate in the study in the 22 sampled hospitals.
b. In big hospitals, the three categories of rehabilitation therapists will have their own departments so each department needs to be visited.
c. At each of the departments, introduce yourself to the assistant director (AD) or senior therapist and explain the study.
d. Inform each AD that all the rehabilitation therapists who fit the eligibility criteria can participate in the study.
e. Ask the AD for the appropriate time to survey the rehabilitation therapists and make appointments with the rehabilitation therapists.
f. If the required sample sizes are not met after the selected therapeutic departments are visited, the fieldworker should inform the principal investigator.

REMEMBER

- ✓ ***In the selected clinical units only health professionals who meet the inclusion criteria are eligible to participate in the study***
- ✓ ***Medical doctors, professional nurses and rehabilitation therapists employed on a contract basis are excluded from the study.***

6.4. Procedure at small hospitals (district hospitals)

Introductions to the hospital management and clinical head of departments (HODs)

a. The PI will explain the study to the CEO or chairperson of the research chair
b. After explaining the study, the CEO may refer the research team to the head of departments (HODs). This may vary per hospital; however, the research team must enlist the support and cooperation of the [clinical] HODs.
c. The research team will be introduced to the following people:

i. Head of departments (HOD) of the chosen medical disciplines
ii. Nursing service manager and HODs of the chosen units
iii. Clinical support and therapeutic services manager (also known as the allied manager) and HODs for :
   - ❖ Physiotherapy
   - ❖ Occupational therapy
   - ❖ Speech therapy and audiology

d. When meeting the departmental managers thank them for their time and assistance as shown in **script 1.** Stress the importance of the study in generating information on multiple job holding (dual practice, moonlighting or RWOPS) among medical doctors, professional nurses and rehabilitation therapists.

Script 1: Introduction to departmental managers

Hello, my name is _____ and I am a fieldworker for a study on multiple job holding. I am pleased to meet you. Thanks for meeting with us today. We are doing a study on multiple job holding (also known as dual practice, moonlighting, or RWOPS) among medical doctors, professional nurses, and rehabilitation therapists in the public health sector. Our focus is on the two provinces of Gauteng and Mpumalanga. Participation in the study is voluntary, but we want to encourage maximum participation. We are interested in permanently employed medical doctors, professional nurses and rehabilitation therapists. We will make sure that we do not interfere with the normal functioning of the three categories of health professionals and the departments/units. If necessary, we will stay here for the whole

6.4.1. Clinical units and health professionals required at district hospitals

Table 6: List of clinical units and health professionals required at district hospitals

Department	Ward number	No. Drs. required	No. of Drs. obtained	Department	No. of PNs required	No. of PNs obtained	Department	No. of rehab required	No. of rehab obtained
All		14		**All**	13		**Physiotherapy**	All	
							Occupational Therapy	All	
							Speech therapy and audiology	All	
Grant total		**14**		**Grand Total**	**66**		**Grand Total**	**59**	

6.5. Procedure for recruiting the health professionals at small hospitals

6.5.1. Recruiting medical doctors

a. In each selected clinical department, the PI will explain the study to the HODs and ask them for an appropriate time to survey the permanently employed medical doctors
b. The PI will ask the HOD where the doctors are stationed on the days that the research team are visiting the hospital.
c. The PI will inform the HODs of the number of medical doctors required in each clinical department.
d. **Please note:** Most district hospitals will not have intensive care units, but they may have a high-care or observation unit
e. In theatre and intensive care units (ICUs), the same approach is used
    i. In theatre, introductions will be made to the doctor in charge or the head of anaesthesia
    ii. In ICU introductions will be made to the doctor in charge or HOD
    iii. In some hospitals, you may be allowed to survey the medical doctors in the tea room or change room

6.5.2. Recruiting professional nurses

a. In each selected clinical department, ask the HODs for the appropriate time to survey the permanently employed professional nurses and make appointments with the professional nurses.
b. The PI will inform the matron in charge of the number of permanently employed professional nurses required in each department and they may assist you in locating the professional nurses.
c. Each clinical department has at least one ward depending on the hospital, note down the wards and visit each ward
d. In each ward report to the sister in charge or unit manager and ask them to assist you in locating permanently employed professional nurses.
e. Please note: Most district hospitals will not have intensive care units
f. In theatre and intensive care units (ICUs), the same approach is used.
    i. In theatre, introductions will be made to the matron/sister in charge or unit manager
    ii. In ICU introductions will be made to the matron/sister in charge or unit manager
    iii. In some hospitals, you may be allowed to survey the professional nurses in the tea room or change room
    iv. You may be asked to don boots, a cap and a theatre gown in some instances to gain access to the professional nurses in theatre.
    v. In other instances, you may have to sit in the tearoom or change rooms and approach the professional nurses as they come for a short break.

6.5.3. Recruiting rehabilitation therapists

a. All rehabilitation therapists who meet the inclusion criteria will be eligible to participate in the study in the 22 sampled hospitals.
b. In some hospitals, the three categories of rehabilitation therapists will have their own departments, so each department needs to be visited.
c. In some hospitals, the three categories of rehabilitation therapists will be in one building or one big office.
d. At each of the departments, introduce yourself to the senior therapist and explain the study.
e. Inform each senior therapist that all the rehabilitation therapists who fit the eligibility criteria can participate in the study.
f. Ask the senior therapist for the appropriate time to survey the rehabilitation therapists and make appointments with the rehabilitation therapists.
g. If the required sample sizes are not met after the selected therapeutic departments are visited, the fieldworker should inform the PI.

6.5.4. Scheduling appointments with survey participants

a. Each fieldworker will arrange with the health professionals for the best time to conduct the survey should they be busy when you approach them.
    i. Ask for the alternative time and ward where you will find them
    ii. Ask for their name
    iii. Note down the time and ward

7. Self-administered questionnaire (SAQ)

7.1. Questionnaire structure

The electronic self-administered questionnaire has 10 different sections and 2 instruments as follows:

A. Instrument one: "Survey in multiple job holding (RWOPs) among health professionals"

i. Section A: Demographic information
ii. Section B: Current employment
iii. Section C: Choice Task
iv. Section D: Overtime
v. Section E: Multiple job holding (MJH)
vi. Section F: Extent and forms/types of multiple job holding
vii. Section G: Reasons for multiple job holding
viii. Section H: Reasons for staying in the public sector
ix. Section I: Reasons for not doing MJH (RWOPS)
x. Section J: Permissions and rules on RWOPS
xi. Additional comments

B. **Instrument two: Office Use Only**

i. Name of fieldworker
ii. Date of collection (auto-fills)
iii. Province
iv. Hospital name GP
v. Hospital name MP
vi. Category of hospital

7.2. Questionnaire logistics

In certain instances, you may need to assist some senior health professionals to complete the survey.

A. **Skip patterns**

i. Please note that not all the questions and sections of the questionnaire will be relevant to each health professional.
ii. The self-administered questionnaire will skip certain questions depending on the responses of the different health professionals.

B. **Pop-up messages**

i. A box with a message will pop up on the screen to notify a participant if a section is not fully completed or if an incorrect value has been typed.
ii. Read the message carefully, it will tell you which section needs to be corrected or changed

C. **Limits on values**

i. The questionnaire has limits on values a participant can enter for questions asking about the year of an event or their age. In terms of age, a participant cannot enter a value less than 21 and a value greater than 65.
ii. A pop-up message will appear to inform the health professional about the limitation

D. **Required**

i. Most of the questions are required in the questionnaire, meaning that the participant will not be able to proceed to the next question or section unless the question is completed.
ii. A pop-up message will appear to inform the health professional about the question that needs to be completed.

E. **Reset**

i. If a participant has clicked on the wrong option or wishes to change their choice, they can click on the reset button on the right bottom corner of each question.

8. Completion of the questionnaire

8.1.1. Establish rapport

a. When approaching health professionals please ensure that, you are wearing your nametags.

b. Make sure that you are polite and professional at all times, even if health professionals are abrasive or rude.

c. You can use **script 2** to approach the health professionals

d. Encourage the health professional to complete the questionnaire as soon as possible.

e. If they are unable to complete it on the day that you approach them ask them for a convenient time on the same day.

f. Tell them that you will be there for the whole day to conduct the survey.

g. In certain instances, the fieldworker may need to assist some health professionals to complete the survey, or to access the Wi-Fi. In that instance, show them what to do, but let them complete the questionnaire on their own

Script 2: Encouraging health professionals to participate

My name is _____. I am from the Wits School of Public Health. We are doing a survey on multiple job holding (also known as dual practice, moonlighting or RWOPS) among medical doctors, professional nurses and rehabilitation therapists. We are requesting your participation in this study. It will take about **20 minutes**.

We have obtained permission to conduct this study. Ethical approval for this study has been obtained from the University of the Witwatersrand Ethics Committee for Research on Human Subjects.

The questions are not a test, so there is no right or wrong answers. Your opinions and experiences are important. Everything that you say will be treated as private and confidential. Your name will not be used when the results of the study are presented or written up.

Your participation is voluntary. There will be no negative consequences if you do not want to participate. There will be no direct benefit to you if you participate in this study but we hope that the information collected will assist with health workforce interventions in South Africa.

If you are willing to give your consent and take part, we will appreciate your participation and the information that you are willing to provide. You can fill in the questionnaire on this tablet.
Should you face any technical difficulties, we will provide assistance. We have a detailed information sheet for you to read, but the information is also available on the tablet.

DO YOU HAVE ANY QUESTIONS?

8.1.2. Completion of the questionnaire online

a. The survey will be completed online; the offline version on the REDCap App is the last resort if the internet is not available.

b. Check the connectivity strength at all times to find a suitable spot

c. Make sure that the tablets have enough battery power before you request the professional to begin the survey
d. Once you have explained the study to the participant and they have read the electronic information sheet, tell them to select 'Yes" on the statement of consent on the tablet if they are willing to proceed with the questionnaire on REDCap.
e. Please inform the participants that each section needs to be completed to proceed with the survey.
f. They should click "reset" should they wish to change their option for a particular question.
g. When they completed the survey, they should give the tablet back to you to complete the "Office use only" section and they should not close the survey.
h. **Please note:**
    i. If a prospective participant is unable to complete the survey at the time you approach them, ask them for an alternative time.
    ii. If after several attempts, a prospective participant says that they do not have time to do the survey and do not provide you with an alternative time,
    iii. Offer the survey completion via email.
    iv. Make sure that you ask for their email address and inform them that the PI will email them a survey link to complete the survey.
        - ❖ NB: Please ensure the participants that we need the email address to send a unique survey link to them.
        - ❖ We are sending unique links to ensure data quality.
        - ❖ When they complete the survey, REDCap creates a unique participant number so their responses will be anonymous and confidentiality will still be maintained.
    v. Please record down the number of participating health professionals at each study unit daily, those who say they are too busy, and those who refuse after an explanation of the MJH study.

8.1.3. AFTER COMPLETION OF THE SURVEY (Online)

a. Thank the health professional for their participation in the survey
b. Give the participant the pen as a token of appreciation
c. Complete the office use only section and submit.
d. **Thank the manager on duty for assisting with the study**

REMEMBER

- ✓ **Thank the health professional for their participation in the survey**
- ✓ **Thank the manager on duty for assisting with the study**
- ✓ **Complete the office use only information**
- ✓ **Please do not falsify information or complete the questionnaire on your own.**

WE WILL BE ABLE TO PICK IT UP AND IT IS A SERIOUS OFFENCE

8.2. Completion of the questionnaire offline

Please note on the REDCap App:

a. The sections are not separated by page numbers as on the online version the questionnaire appears on a single page.
b. Whether health professionals select "Yes" or "NO" for the statement of consent, no message pop-ups, ask the health professional to proceed after selecting "Yes".
c. To proceed to the next section or question, the health professional needs to scroll down the page.

Summary of steps

1. Select the REDCap icon on the screen and fill in the login details found at the back of each tablet. Select "Login".
2. Select "My projects"
3. Select "MJH survey tool"
4. Select "Collect data"
5. Select the "Survey in multiple job holding (RWOPS) among health professionals" instrument
6. Create new record
7. Ask the participant to read or read the electronic information sheet to the participant. Ask the participant to select "Yes" to proceed

AFTER COMPLETION OF THE SURVEY

8. Check that the questionnaire is completed successfully by clicking on "save and stay"
9. Please check if sections G to I are completed and that there are no pop-up messages.
10. If all required sections are, complete select "save and exit".
11. If no messages pop-ups or you get the following message then the survey is completed

Complete the office use only section and submit.

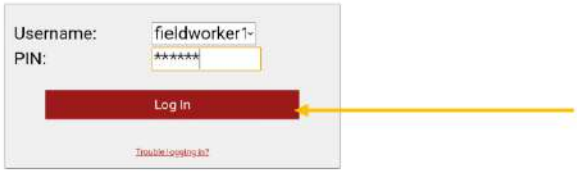
12. Go back to "collect data"
13. Select the "Office Use Only" instrument
14. Select the record you want to complete the office use only information
15. Complete the "Office Use Only" instrument
16. Click on "complete"
17. Select complete and click on "save and exit"

8.2.1. A step-by-step visual guide on the REDCap App

1. Select the REDCap icon on the screen and fill in the login details found at the back of each tablet. Select "Login".

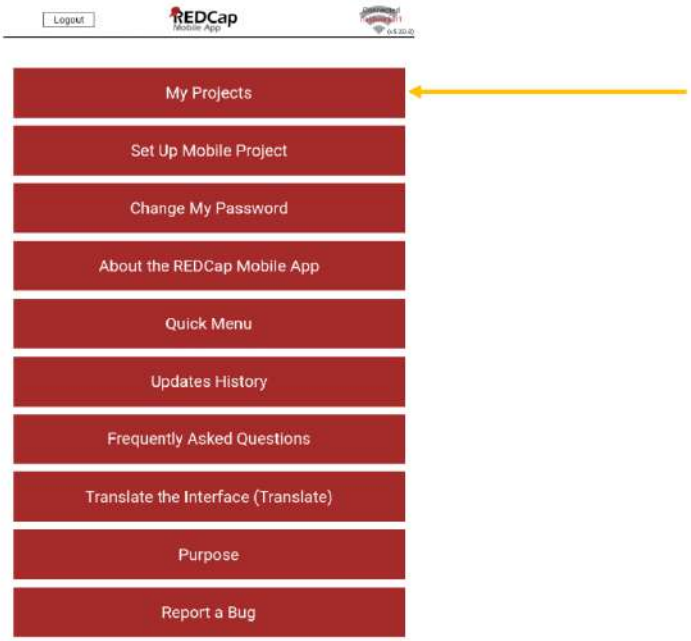


Log In





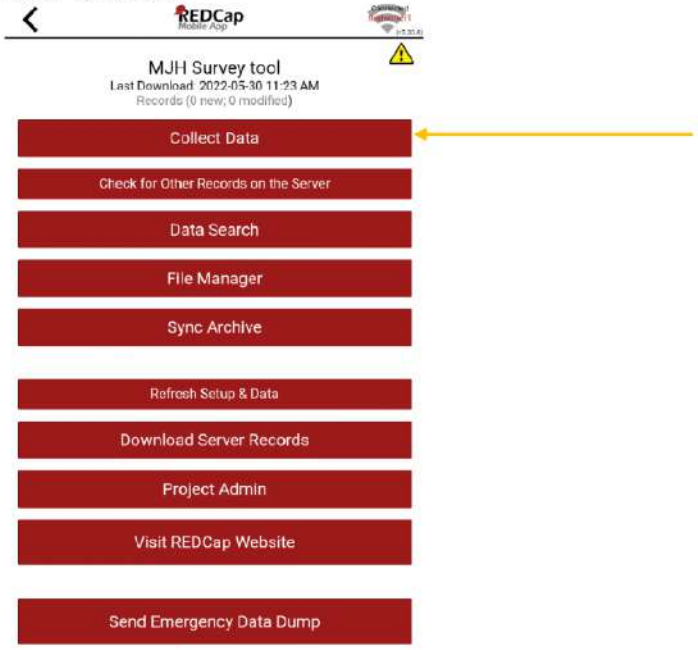
2. Select "My projects"



3. Select "MJH survey tool"



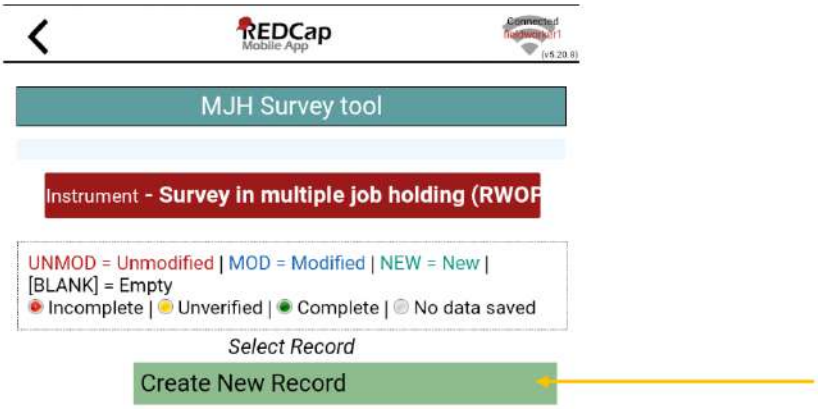
4. Select "Collect data"



5. Select the "Survey in multiple job holding (RWOPS) among health professionals" instrument



6. Create new record

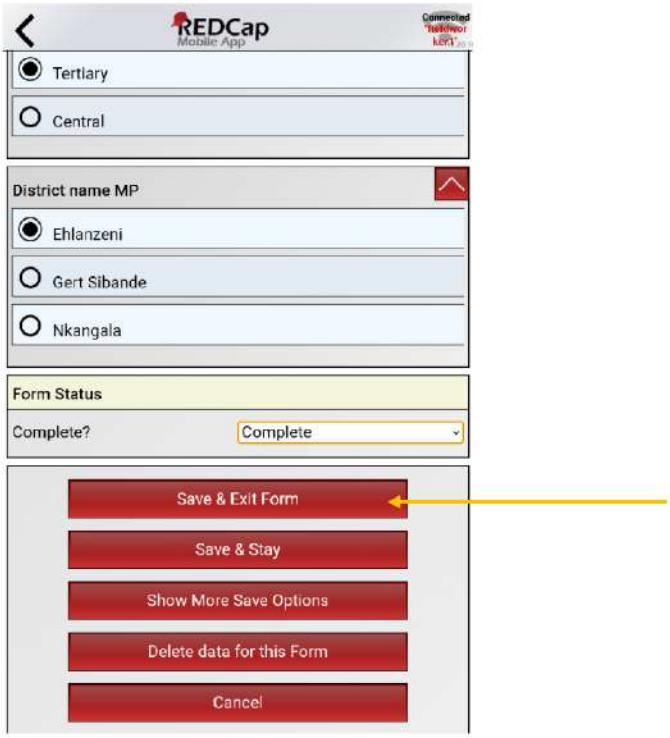


7. Ask the participant to read or read the electronic information sheet to the participant. Ask the participant to select "Yes" to proceed



AFTER COMPLETION OF THE SURVEY

8. Check that the questionnaire is completed successfully by clicking on "save and stay"
9. Please check if sections G to I are completed and that there are no pop-up messages.
10. If all required sections are, complete select "save and exit".



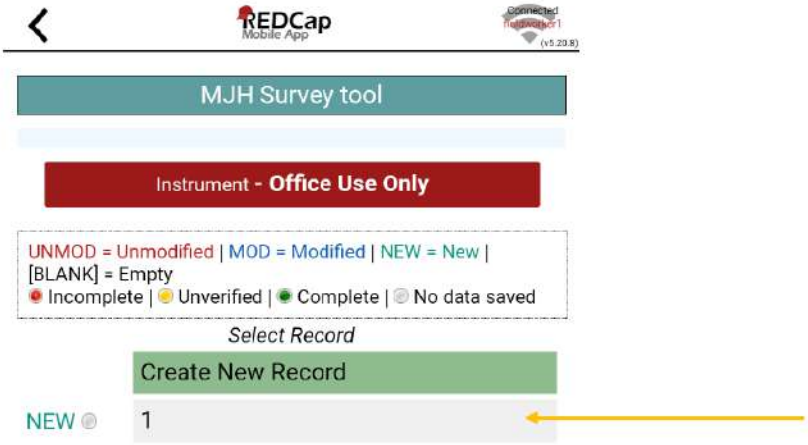
11. If no messages pop-ups or you get the following message then the survey is completed



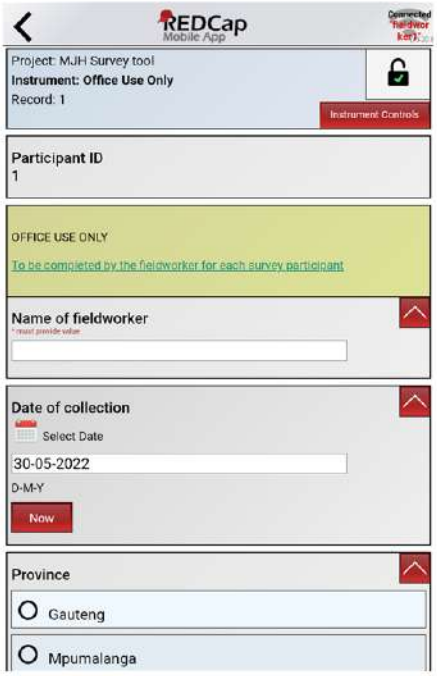
12. Thank the health professional for their participation in the survey
13. Give the participant the pen as a token of appreciation

8.2.2. Complete the office use only section and submit.

14. Go back to "collect data"
15. Select the "Office Use Only" instrument
16. Select the record you want to complete the office use only information

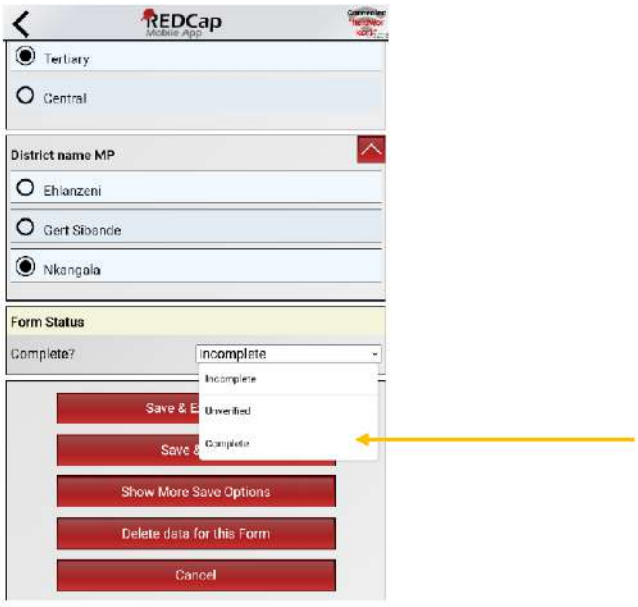


17. Complete the "Office Use Only" instrument



18. Click on "complete"

19. Select complete and click on "save and exit"



8.2.3.1. Refusal log sheets (example)

Please note: This form should only be filled in if a participant has refused to participate in the study after several attempts to motivate their participation.

No.	Date	Hospital	Profession	Ward/Unit	Province (GP/MP)	Reasons for refusal
1.						
2.						
3.						

8.2.3.2. Email request for survey links sheets (example)

No.	Date	Hospital	Profession	Ward/Unit	Province (GP/MP)	Email address
1.						
2.						
3.						

8.2.4. Sending data from REDCap App to the server

Summary of steps

a. At the end of each day, please follow the following steps to send data from the REDCap App (offline survey) to the server
b. Select "My Projects"
c. Select "MJH Survey tool"
d. Select "Send data to server"
e. Select "Select a partial set of records"
f. Select the records you want to send to the server
g. Select "Sync only selected records"
h. Select "Yes" for the App to access your location
i. You will then land on the "Sync complete" page to show you that the data was sent successfully to the REDCap server.

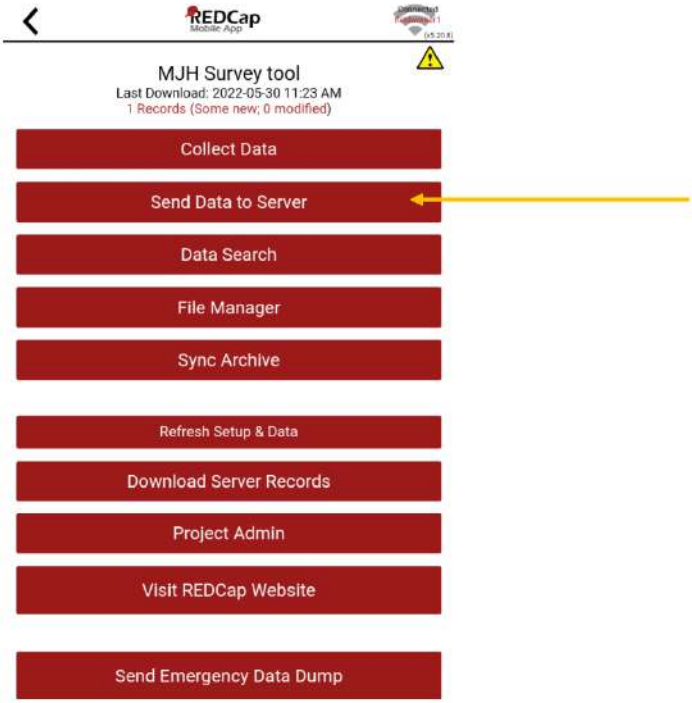
8.2.4.1. Step-by-step guide for sending data to server from the REDCap App

a. At the end of each day, please follow the following steps to send data from the REDCap App (offline survey) to the server

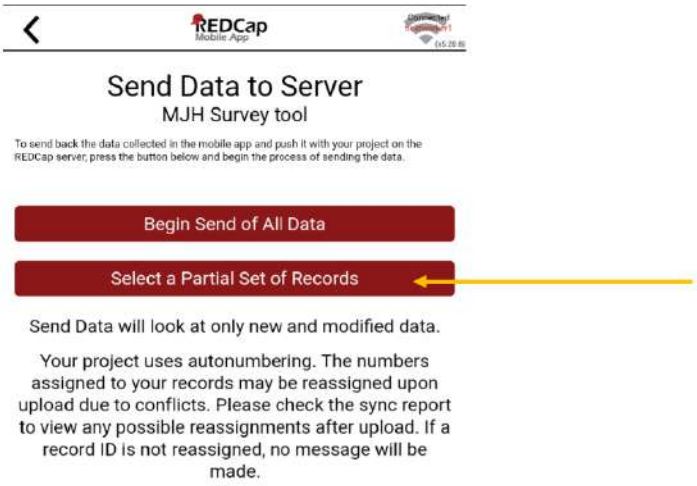
b. Select "My Projects"

c. Select "MJH Survey tool"

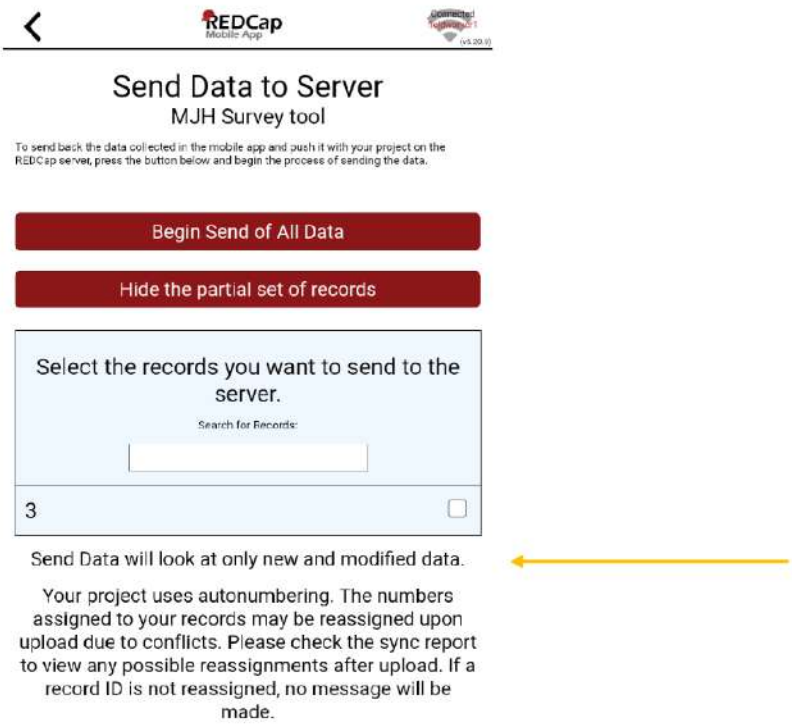
d. Select "Send data to server"



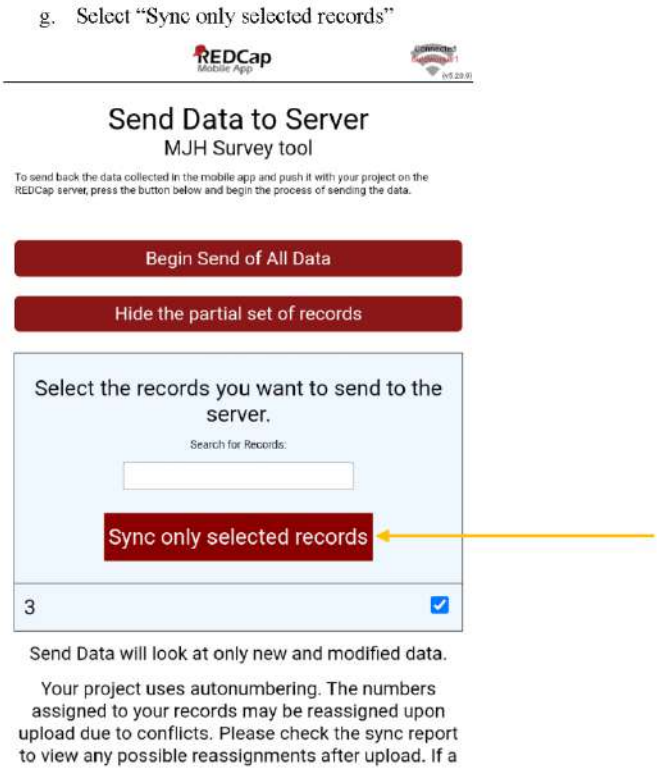
e. Select "Select a partial set of records"



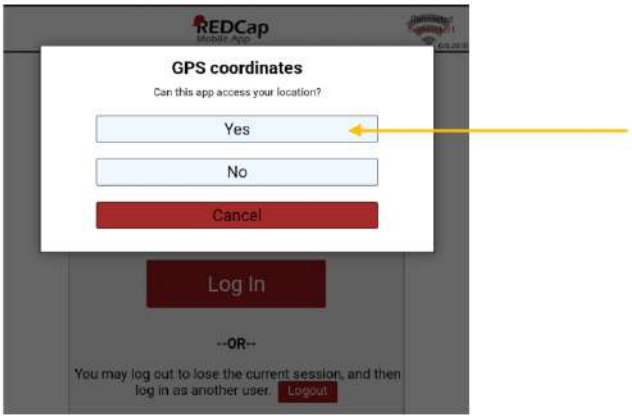
f. Select the records you want to send to the server



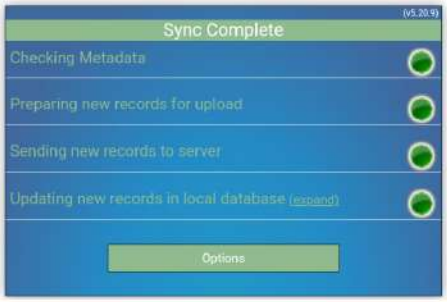
g. Select "Sync only selected records"



h. Select "Yes" for the App to access your location



i. You will then land on the page below to show you that the data was sent successfully to the REDCap server.



9. Problem-solving

9.2. Possible participant questions and responses

1. **Why are you doing the study?**

   This survey is part of the PhD study of Busisiwe Matiwane. I am/she is doing the study because there is limited and dated information available in South Africa on multiple job holding among public sector medical doctors, professional nurses, and rehabilitation therapists and the RWOPS policy as a regulatory mechanism. We are doing the MJH survey to begin to address the gap.

2. **Are you planning to report people who do RWOPS without permission to the authorities?**

   NO, we do not work for the national or provincial health departments. We are not collecting any personal information, the hospitals were selected randomly, and so are the health professionals. The information that you provide is confidential and anonymous. When we report the findings of the study, all the information from the questionnaires will be combined and reported in aggregate.

3. **Is the DoH planning to ban RWOPs?**

   We do not work for the Department of Health. We do know that the DoH is looking for ways to manage RWOPs more effectively in the public sector to ensure the quality of care. We hope that our study will enrich the discussions on the effective management of RWOPs.

9.3. Dealing with fieldwork problems from participants

Table 7: Fieldwork problem and solutions

Problem	Solution
1. **The participant objects to participating in the study because of certain concerns**	• Listen attentively to the participant's concerns • Try to address these concerns or reasons for objecting • Remind the participant that the survey is anonymous and only aggregate results will be published. • Please refer to (possible participant questions and answers).
2. **The participant refuses to participate in the study**	• Ask if they would mind telling you their reasons for refusal • Accept their refusal courteously and thank them for their time • Please do not coerce or argue with a prospective participant • Treat the participant with respect • Tell the participant that should they change their mind they are welcome to get back to you
3. **The participants ask you what will they benefit or gain from participating in the study**	• You can tell the participants that is it a bit of a double-edged sword – the survey is voluntary, but if they choose not to participate, the survey is meaningless; we would like them to participate. • There are no direct benefits for participating in the study or penalties for refusing to participate in the study • However, the study will contribute to solutions to address health workforce challenges and advocate for health workforce interventions or reforms.

9.4. Dealing with technical issues

If a participant reports technical issues with the tablet, do not panic.

Table 8: Technical issues and solutions

Technical issue	Solution
1. **The online survey is not responding or keeps loading**	• Do not panic • Do not refresh the page or press any arrows on the web browser • Check if the Wi-Fi router is still on • Check the connectivity • Move around to find a connection
2. **A participant reports that there is a pop-up message on the screen**	• Read the message carefully and inform the participant of the section that needs to be filled in or corrected. • Close the box on the 'x' icon or click okay to proceed

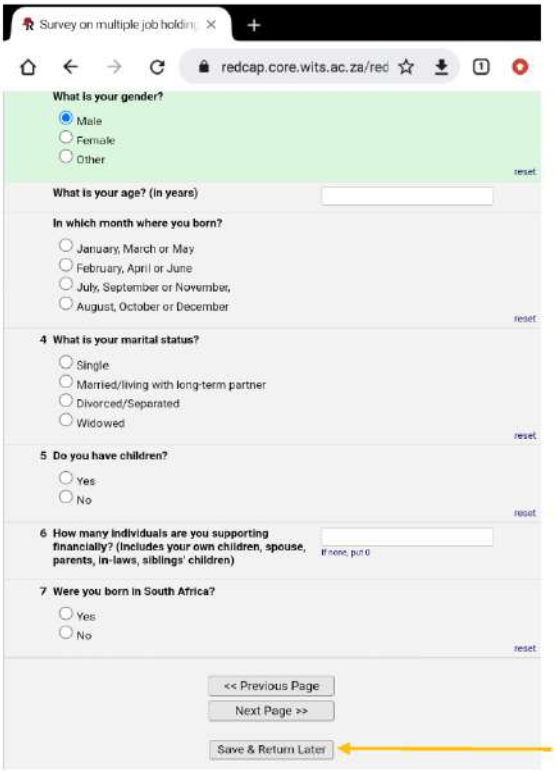
9.4.3. Save and Return later

During the survey, a participant might be interrupted or need to attend to an emergency. When this happens, please follow the steps below:

Summary of steps:

a. Ask the participant if they can select Save and Return later
b. A return code will be generated
c. They can also continue with the survey if the "Save & Return Later" button was pressed by mistake
d. The participant can select "Continue Survey Now"
e. Do not give the participant the option to give them the email address to "Send survey link"
f. When the participant is ready to continue the surve . Open the survey link on your home screen. Select the "Returning?" icon on the right top corner
g. A pop-up message will come up. Select "Continue the survey"
h. Enter the "Return code and continue the survey". Select "Submit your Return Code".

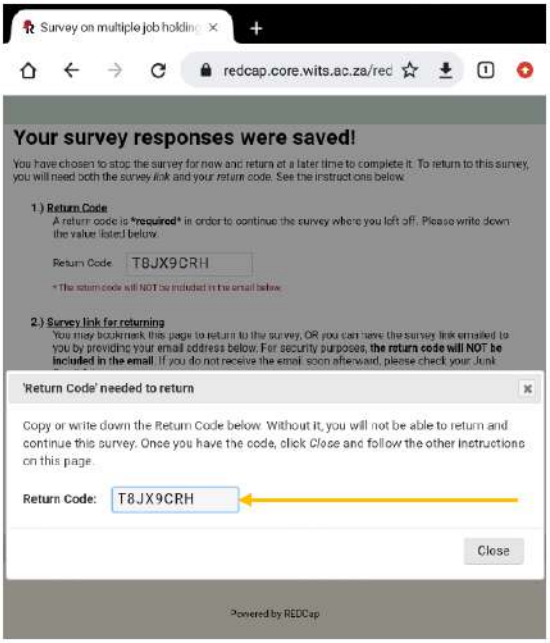
a. Ask the participant if they can select Save and Return later



b. A return code will be generated

   i. Copy the return code to your notepad or Samsung notes

   ii. Note down the ward and participant name



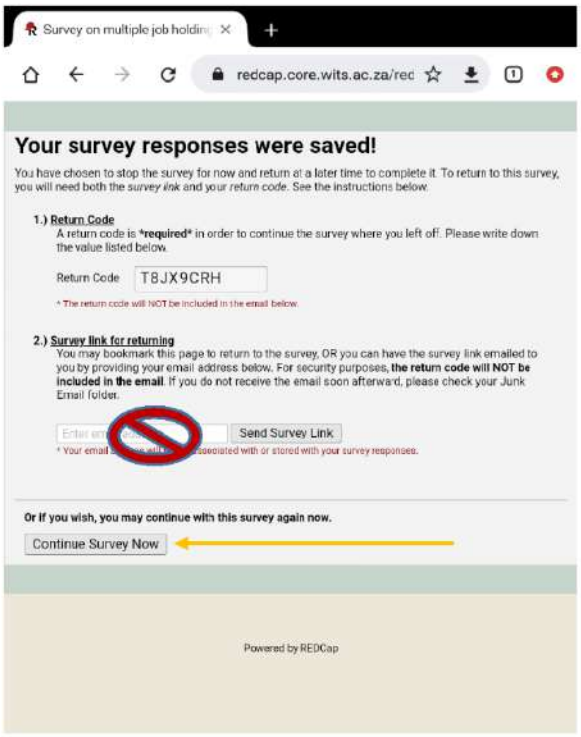
c. They can also continue with the survey if the "Save & Return Later" button was pressed by mistake

i. The participant can select "Continue Survey Now"

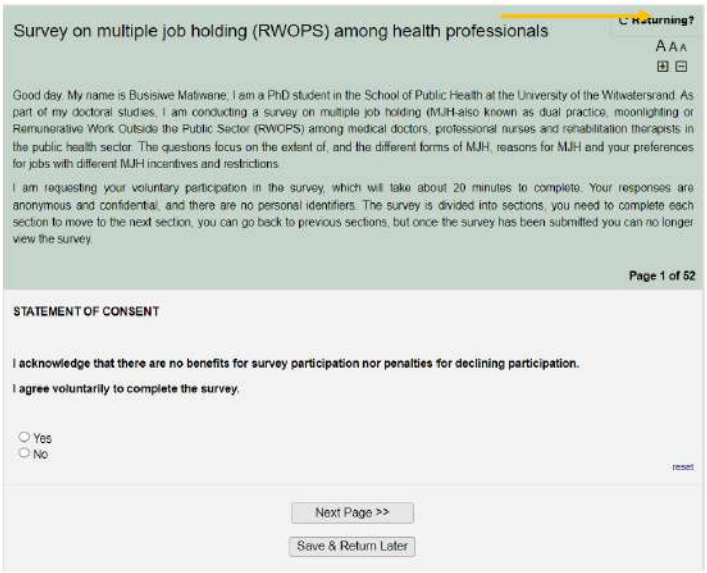
ii. Do not give the participant the option to give them the email address to "Send survey link"

iii. If they would like a survey to be sent to them, the PI will generate a unique link for them with their email address.

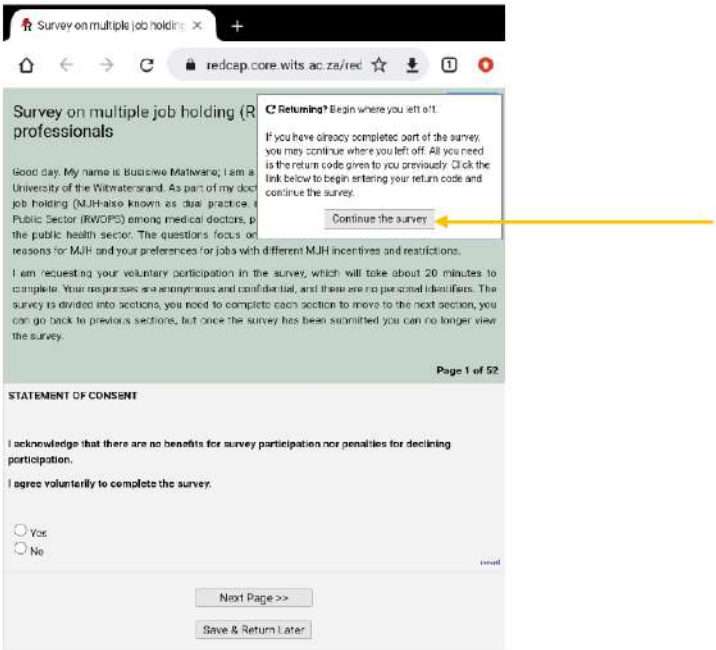
iv. Do Not send them a link via their email, a generic link will be sent and this will compromise the data quality.



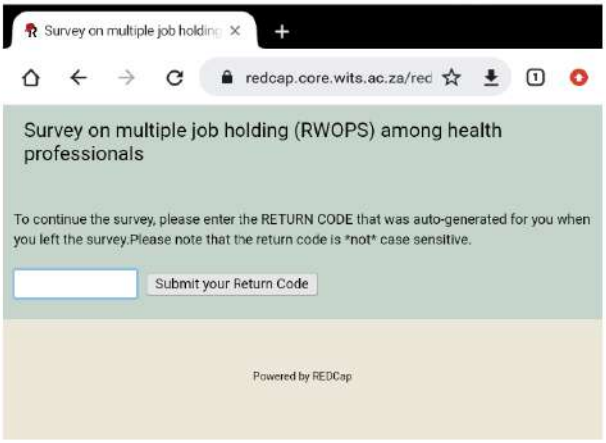
d. When the participant is ready to continue the survey
    i. Open the survey link on your home screen
    ii. Select the "Returning?" icon on the right top corner



e. A pop-up message will come up. Select "Continue the survey"



f. Enter the "Return code and continue the survey". Select "Submit your Return Code".



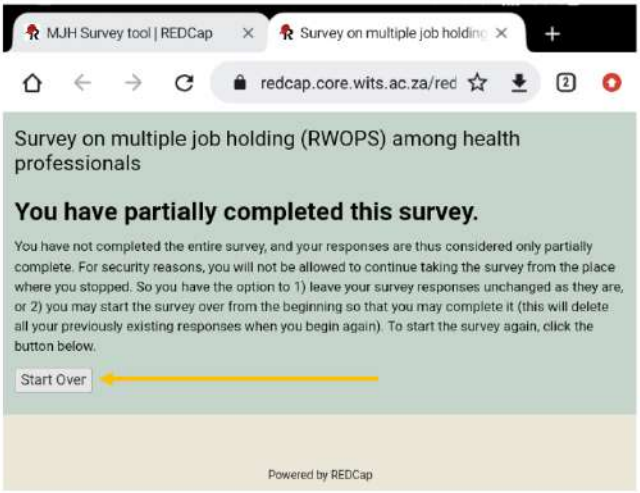
9.4.4. The online survey gets submitted incomplete

1. Note down the time and inform the principal investigator to generate a link
2. Send the PI a WhatsApp text or text depending on the connectivity and call the PI to inform her
3. Do not try to complete the survey on the REDCap App if a survey is submitted incomplete on the REDCap server the new information will not be saved.
4. The PI will send a survey link via WhatsApp text or email.

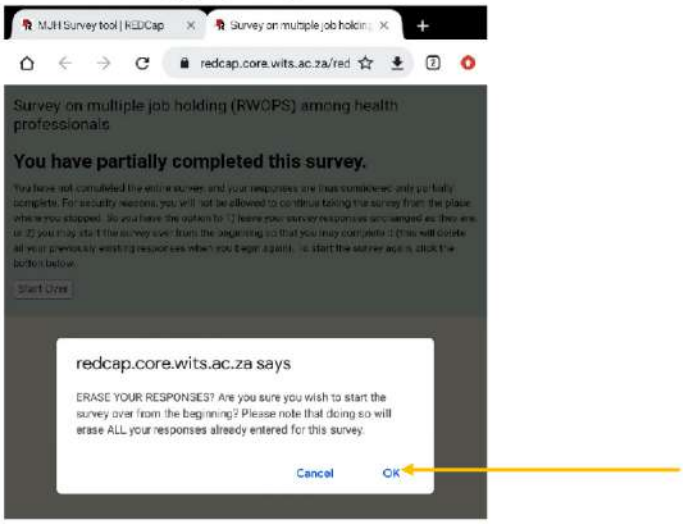
Summary of steps

a. Select "Start over" (Reassure the health professional that the survey will not start from the beginning"
b. Click "ok" on the pop-up message.
c. The health professional needs to give consent again
d. The health professional will need to click next page until at the place they last completed the survey.

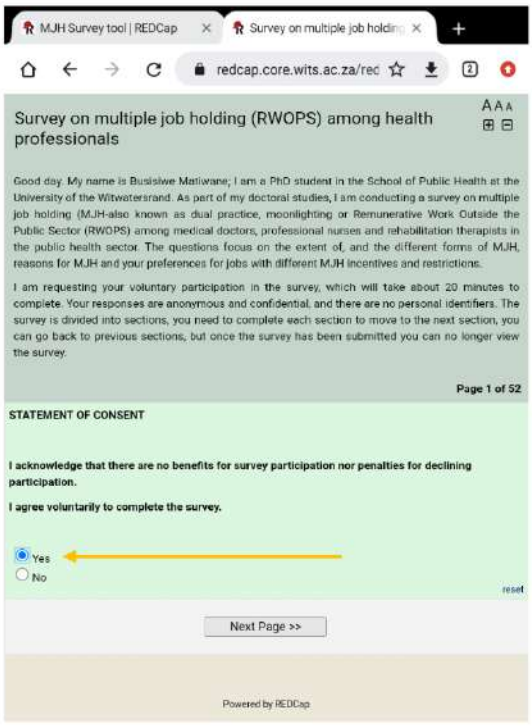
a. Select "Start over" (Reassure the health professional that the survey will not start from the beginning"



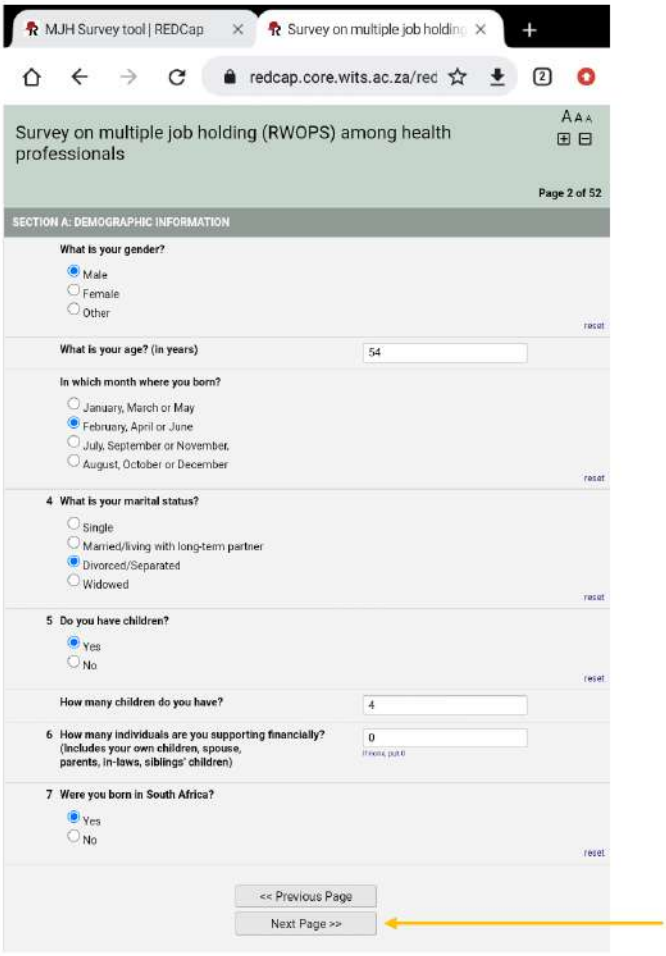
b. Click "ok" on the pop-up message.



c. The health professional needs to give consent again



d. The health professional will need to click next page until at the place they last completed the survey.



9.5. Dealing with difficult questions

Please answer all the questions from prospective participants, however, if you do not know the answer please contact the principal investigator, Busisiwe on 074 887 1071.

10. Data quality control

a. The principal investigator, Busisiwe Matiwane, will conduct the data quality control.

b. Prof Laetitia Rispel and Dr Duane Blaauw supervise the overall PhD study.

c. Training of field workers will be done to ensure the standard of practice and adherence to ethics

d. Fieldworkers will be orientated in each study unit by the PI to observe the standard of practice.

e. Daily meetings will be held with fieldworkers to submit and report daily progress
f. The PI will audit the completed data daily on REDCap to verify the quality of the data.
g. The accuracy of the data is very important because it will inform the findings of the study, whose findings will be written up as journal articles and might inform policy reforms for health professionals.

11. General tips

a. **Planning**-make sure there are the required equipment and documents are ready.
b. **Working, as a team and pro-active communication** is critical.
c. **Punctuality** is important- arrive early before the scheduled appointment with hospital management.
d. **Initial presentation to the hospital CEO, chairperson of the research/ethics committee and particularly the therapeutic service and clinical support manager (also known as the allied manager), medical and nursing service managers** is critical. We need to demonstrate enthusiasm for the survey, discuss why it is important, talk about planned feedback and acknowledge that people are doing us a great favour, often by giving us so much of their time and goodwill.
e. The survey requires **active management-** the health professionals should be encouraged to complete the questionnaire as soon as possible.
f. Aim to have a **100% response rate** in each hospital.

Remember

✓ **Please do not hesitate to contact the principal investigator if there are any queries or any problems.**

12. Checklist

What is required for fieldwork?		Required number	Check
1. Ethics clearance certificate	Ethics clearance certificate from Wits	1	
	Approval letters from GP and MP Provincial department of health	2	
	Permission letters from the relevant hospitals	56	
2. Information sheet		1	
3. List hospital of units		66 (3 per hospital)	
4. Refusal log sheets			

5. Email request for survey links sheets			
What should be done during fieldwork?			
Summary of steps			
1. Introductions with CEO and HODs 2. Visiting assigned clinical departments • Introductions to departmental managers • Approaching prospective participants • Survey prospective participants • Verify completeness of survey • Thank the participants and give them a gift 3. Thank the departmental managers			

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

MULTIPLE JOB HOLDING AMONG PUBLIC SECTOR MEDICAL DOCTORS, PROFESSIONAL NURSES AND REHABILITATION THERAPISTS IN GAUTENG AND MPUMALANGA

INFORMATION SHEET FOR THE HEALTH PROFESSIONALS' SURVEY

Introduction and background

Good day. My name is Busisiwe Matiwane; I am a PhD student in the School of Public Health at the University of the Witwatersrand. I am conducting this research as part of my doctoral studies.

This research study aims to obtain information on the experiences of, extent of, contributing factors and regulation of multiple job holding (also known as dual practice, moonlighting or Remunerative Work Outside the Public Sector (RWOPS) among medical doctors, professional nurses and rehabilitation therapists in the public health sector. I am requesting your participation as a health professional to provide information on your opinions and experiences with multiple job holding and the RWOPS policy.

You will be invited to complete an online self-administered questionnaire, which will take you about **20 minutes** to complete, and focus on the extent of the different forms of MJH, reasons for MJH and your stated preferences for various incentives and restrictions regarding MJH regulation. The questions are not a test, so there are no right or wrong answers. Your opinions and experiences are important. You may refuse to answer any questions that you do not feel comfortable answering. You may also say that you do not know the answer to a question.

Confidentiality

The information that you give in the questionnaire will be anonymous. The researchers are independent and do not work for any health care authority. (All questionnaires have a study code, which is not a personal identifier. I assure you that all information you provided will be used only for the study. Everything that you say when answering the questions will be treated as private and confidential. Your name will not be revealed in any written data or report resulting from the study. The answers given will be analysed and reported as group data. The combined information will be written up as a journal article, which will form part of the PhD thesis.

Consent

We have obtained permission from the provincial and hospital authorities. You will be asked to provide informed consent to participate in the study. If you are willing to give your consent and take part, I will appreciate your participation and the information that you are willing to provide.

Benefits and risks of participation

Please note that participation in this study is voluntary and there will be no direct benefits to anyone who participates in the survey. Similarly, there will be no negative consequences for individuals who do not want to participate in the survey. We will not compensate any participant for taking part in the study, nor is there any cost to participants. You have the right to decline to answer any questions that make you feel uncomfortable or to stop the survey at any time.

Contact details

I will be happy to answer any questions you have about this study. If you have questions about the

research, you may contact me as the Principal Researcher or the Research Supervisors:

PhD candidate	Supervisor	Co-supervisor
Ms. Busisiwe Matiwane School of Public Health University of the Witwatersrand, Johannesburg Phone: +27 74 887 1071 Email: busisiwe.matiwane@wits.ac.za	**Professor Laetitia Rispel** South African Research Chair School of Public Health University of the Witwatersrand, Johannesburg Phone: +27 11-717 2043 Email:laetitia.rispel@wits.ac.za	**Dr Duane Blaauw** Centre for Health Policy School of Public Health University of the Witwatersrand, Johannesburg Phone: +27 11-717 3422 Email:duane.blaauw@wits.ac.za

If you agree to participate, I would ask that you please indicate that electronically before the commencement of the survey.

Study Results

Please let me know should you wish to get feedback on my study.

The Human Research Ethics Committee (Medical) of the University of the Witwatersrand, Johannesburg ("Committee"), has approved this study. A principal function of this Committee is to safeguard the rights and dignity of all human subjects who agree to participate in a research project and the integrity of the research.

If you have any concerns over the way the study is being conducted, please contact the Chairperson of this Committee who is Dr Clement Penny, who may be contacted on telephone number 011 717 2301, or by e-mail at Clement.Penny@wits.ac.za. The telephone numbers for the Committee secretariat are 011 717 2700/1234 and the e-mail addresses are Zanele.Ndlovu@wits.ac.za and Rhulani.Mukansi@wits.ac.za

Thank you for reading this Study Information Sheet.

B. Matiwane 0302183J Thesis Finale 10Mar25 Turnitin Doc.docx

ORIGINALITY REPORT

9%	7%	7%	0%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	wiredspace.wits.ac.za Internet Source	2%
2	pmc.ncbi.nlm.nih.gov Internet Source	1%
3	www.ncbi.nlm.nih.gov Internet Source	<1%
4	phasa.samrc.ac.za Internet Source	<1%
5	core.ac.uk Internet Source	<1%
6	bmjopen.bmj.com Internet Source	<1%
7	docslib.org Internet Source	<1%
8	hdl.handle.net Internet Source	<1%

9	Teffo, Mantshi Elizabeth. "Exploring Psychosocial Issues and Coping Strategies of Health Care Providers at Termination of Pregnancy Services in Two South African Provinces", University of the Witwatersrand, Johannesburg (South Africa), 2025 Publication	<1 %
10	www.hst.org.za Internet Source	<1 %
11	Ariadna García-Prado, Paula González. "Policy and regulatory responses to dual practice in the health sector", Health Policy, 2007 Publication	<1 %
12	Xiaofeng Wang, Zhenshun Cheng. "Cross-Sectional Studies", Chest, 2020 Publication	<1 %
13	research.assaf.org.za Internet Source	<1 %
14	mafiadoc.com Internet Source	<1 %
15	univendspace.univen.ac.za Internet Source	<1 %
16	www.researchsquare.com Internet Source	<1 %

17	Muthathi, Immaculate Sabelile. "Policy Analysis of the Implementation of the Ideal Clinic Realisation and Maintenance Programme in Gauteng and Mpumalanga Provinces", University of the Witwatersrand, Johannesburg (South Africa), 2025 Publication	<1 %
18	journals.plos.org Internet Source	<1 %
19	Khan, Farzana. "An Assessment of the Remunerative Work Outside Public Sector Policy at the Johannesburg Hospital", University of the Witwatersrand, Johannesburg (South Africa), 2025 Publication	<1 %
20	Kiwanuka, Suzanne N, Elizeus Rutebemberwa, Christine Nalwadda, Olico Okui, Freddie Ssengooba, Alison A Kinengyere, George W Pariyo, and Suzanne N Kiwanuka. "Interventions to manage dual practice among health workers", Cochrane Database of Systematic Reviews Reviews, 2011. Publication	<1 %
21	Laetitia C. Rispel, Prudence Ditlopo, Janine White, Duane Blaauw. "Methodological considerations in establishing and maintaining longitudinal health workforce	<1 %

	studies: Lessons learned from the WiSDOM cohort in South Africa", Global Health Action, 2021 Publication	
22	human-resources-health.biomedcentral.com Internet Source	<1 %
23	www.globalhealthaction.net Internet Source	<1 %
24	Ditlopo, Prudence. "The Design and Implementation of the Human Resource Interventions in South Africa and Their Influence on the Motivation and Retention of Health Workers", University of the Witwatersrand, Johannesburg (South Africa), 2025 Publication	<1 %
25	fastercapital.com Internet Source	<1 %
26	www.scirp.org Internet Source	<1 %
27	Senne Vleminckx, Anke Sevenans, Manal Bouchatta, Ive Verbeeck, Erik Franck, Filip Haegdorens. "Multiple job holding and its influencing factors among Belgian nurses: A cross-sectional study", Health Policy, 2025 Publication	<1 %

28	dspace.aua.gr Internet Source	<1 %
29	Cyril Ogada, Laetitia C. Rispel. ""Dentists are never seen": Perspectives of key policy actors on multiple job holding among dentists in Nairobi, Kenya", Research Square Platform LLC, 2024 Publication	<1 %
30	pdffox.com Internet Source	<1 %
31	drum.lib.umd.edu Internet Source	<1 %
32	Mabena, Sphiwe Yomvula. "The Dynamics of Compliance with the National Core Standards for Health Establishments in South Africa: A Case Study of Two Tertiary Hospitals in Gauteng Province", University of the Witwatersrand, Johannesburg (South Africa), 2025 Publication	<1 %
33	jogh.org Internet Source	<1 %
34	open.library.ubc.ca Internet Source	<1 %
35	pubmed.ncbi.nlm.nih.gov Internet Source	<1 %

36	repository.unic.ac.cy Internet Source	<1%
37	Kwinda, Munyadziwa A.. "The Ethical and Legal Considerations on Abuse of Remunerative Work Outside Public Service (RWOPS) by State-Employed Doctors", University of the Witwatersrand, Johannesburg (South Africa), 2025 Publication	<1%
38	www.coursehero.com Internet Source	<1%
39	Prudence Ditlopo, Laetitia C. Rispel, Peter Van Bogaert, Duane Blaauw. "The impact of the nurse practice environment, workload, and professional support on job outcomes and standards of care at primary health care clinics: A structural equation model approach", International Journal of Nursing Studies Advances, 2024 Publication	<1%
40	Laetitia C. Rispel, Carol Marshall, Busisiwe Matiwane, Immaculate Sabelile Tenza. "Innovations, contestations and fragilities of the health system response to COVID-19 in the Gauteng Province of South Africa", PLOS ONE, 2021 Publication	<1%

41	Rispel, Laetitia Charmaine. "Transformation of Human Resources for Health in South Africa: Contributions to Knowledge and Policy", University of the Witwatersrand, Johannesburg (South Africa), 2025 Publication	<1 %
42	bmcpublichealth.biomedcentral.com Internet Source	<1 %
43	health-policy-systems.biomedcentral.com Internet Source	<1 %
44	sajr.org.za Internet Source	<1 %
45	uir.unisa.ac.za Internet Source	<1 %
46	unsworks.unsw.edu.au Internet Source	<1 %
47	www.omicsdi.org Internet Source	<1 %
48	Busisiwe Precious Matiwane, Duane Blaauw, Laetitia Chairmaine Rispel. "Examining the extent, forms and factors influencing multiple job holding among medical doctors, professional nurses and rehabilitation therapists in two South African provinces: a cross-sectional study", BMJ Open, 2023 Publication	<1 %

49	www.wits.ac.za Internet Source	<1 %
50	Watson, Estelle Dorothy. "Maternal Physical Activity: Influence on Maternal and Delivery Outcomes", University of the Witwatersrand, Johannesburg (South Africa), 2025 Publication	<1 %
51	link.springer.com Internet Source	<1 %
52	static.pmg.org.za Internet Source	<1 %
53	ulir.ul.ie Internet Source	<1 %
54	lrd.yahooapis.com Internet Source	<1 %
55	spexternal.modot.mo.gov Internet Source	<1 %
56	Hipgrave, D. B., and K. Hort. "Dual practice by doctors working in South and East Asia: a review of its origins, scope and impact, and the options for regulation", Health Policy and Planning, 2013. Publication	<1 %
57	Maile, Kgopotso Valema. "Organisational Ethics Management to Promote Good	<1 %

	Governance in a National Government Department.", University of Johannesburg (South Africa), 2024 Publication	
58	Naicker, Leigh Anne. "The Implementation of the Compulsory Induction Programme on the Socialisation of Public Servants", University of Pretoria (South Africa), 2023 Publication	<1 %
59	Razlyn Abdul Rahim, Lillian Mwanri. "Health Workforce Crisis: Recruitment and Retention of Skilled Health Workers in the Public Health Sector in Malaysia", Asia Pacific Journal of Public Administration, 2012 Publication	<1 %
60	brieflands.com Internet Source	<1 %
61	openaccess.sgul.ac.uk Internet Source	<1 %
62	www.frontiersin.org Internet Source	<1 %
63	Dickey, Heather and Theodossiou, Ioannis. "Who are the moonlighters and why they moonlight: Evidence for rural communities", University of Aberdeen Business School, 2005. Publication	<1 %

64	Rwafa, Teurai. "Institutionalization of Health Promotion in the South African Health System", University of the Witwatersrand, Johannesburg (South Africa), 2025 Publication	<1 %
65	Dumela, Shinyumisa Sellinah. "The State of Readiness of Limpopo Health Department to Implement a Result-Based Monitoring and Evaluation Framework", University of the Witwatersrand, Johannesburg (South Africa), 2025 Publication	<1 %
66	Melanie Jones, Ezgi Kaya. "The gender pay gap in medicine: evidence from Britain", Oxford Economic Papers, 2024 Publication	<1 %
67	Nguyen, Minh Anh Phan. "Creation and Manipulation of Quantum Emitters in Solid-State Materials", University of Technology Sydney (Australia), 2023 Publication	<1 %
68	Ramsamy, Roshnee. "Analysing Approved Incapacity Leave Among Health Professionals in the Gauteng Department of Health", University of the Witwatersrand, Johannesburg (South Africa), 2025 Publication	<1 %

69	Naidoo, Shan. "Chief Executive Officers and Public Hospital Management in South Africa", University of the Witwatersrand, Johannesburg (South Africa), 2025 Publication	<1 %
70	ijmmu.com Internet Source	<1 %
71	openaccess.city.ac.uk Internet Source	<1 %
72	openscholar.dut.ac.za Internet Source	<1 %
73	www.icddrb.org Internet Source	<1 %
74	Gönsch, Johannes. "Essays on Labor Economics and Inequality.", Universitaet Mannheim (Germany), 2024 Publication	<1 %
75	assets.researchsquare.com Internet Source	<1 %
76	bmchealthservres.biomedcentral.com Internet Source	<1 %
77	nlistsp.inflibnet.ac.in Internet Source	<1 %
78	www.childcarenotes.org Internet Source	<1 %

79	www.mdpi.com Internet Source	<1 %
80	5dok.net Internet Source	<1 %
81	Kout, Naeema Ahmad Ramadan Hussein El. "Analysis of the Disability Framework and Strategy in South Africa: Access to Healthcare for Persons With Disability", University of the Witwatersrand, Johannesburg (South Africa), 2025 Publication	<1 %
82	acikbilim.yok.gov.tr Internet Source	<1 %
83	bmcpregnancychildbirth.biomedcentral.com Internet Source	<1 %
84	doaj.org Internet Source	<1 %
85	f6publishing.blob.core.windows.net Internet Source	<1 %
86	ubt.opus.hbz-nrw.de Internet Source	<1 %
87	www.mak.ac.ug Internet Source	<1 %
88	Mohammad Kamrul Hasan, Farhad Hossain, Emrah Atar. "Implications of refugee crisis on	<1 %

public sector healthcare organizations: Empirical observation from Myanmar's Rohingya refugees in Bangladesh", Journal of Refugee Studies, 2024
Publication

89	cebp.aacrjournals.org Internet Source	<1%
90	www.biznews.com Internet Source	<1%
91	www.cihr-irsc.gc.ca Internet Source	<1%
92	www.wcpp.gov.za Internet Source	<1%
93	Cliff, J., S. Lewin, G. Woelk, B. Fernandes, A. Mariano, E. Sevene, K. Daniels, S. Matinhure, A. Oxman, and J. Lavis. "Policy development in malaria vector management in Mozambique, South Africa and Zimbabwe", Health Policy and Planning, 2010. Publication	<1%
94	Mingyue Li, Haoqing Tang, Huixian Zheng, Yiran Tian, Xiaoran Cheng, Haozhe Cheng, Xiaotian Zhang, Dan Hu, Xiaoyun Liu. "Supporting and retaining competent primary care workforce in low-resource settings: lessons learned from a prospective cohort	<1%

study", Family Medicine and Community Health, 2023
Publication

95	Mosam, Atiya. "Regulating the Employment of Doctors Within the Private Sector in South Africa: A Policy Analysis", University of the Witwatersrand, Johannesburg (South Africa), 2025 Publication	<1 %
96	Timothy Manyise, Rodolfo Dam Lam, Denise Lozano, Arun Padiyar et al. "Exploring preferences for improved fish species among farmers: A discrete choice experiment applied in rural Odisha, India", Aquaculture, 2024 Publication	<1 %
97	chwcentral.org Internet Source	<1 %
98	da Costa, Joana Patrícia Dias Gomes. "Essays on Physician and Patient Behaviour: Adherence, Adoption and Diffusion of Antidiabetic Pharmaceuticals", Universidade do Porto (Portugal), 2024 Publication	<1 %
99	dro.deakin.edu.au Internet Source	<1 %
100	edoc.unibas.ch Internet Source	<1 %

101	erepository.uonbi.ac.ke Internet Source	<1%
102	form.jotform.com Internet Source	<1%
103	iwaponline.com Internet Source	<1%
104	mspace.lib.umanitoba.ca Internet Source	<1%
105	provincialgovernment.co.za Internet Source	<1%
106	repository.up.ac.za Internet Source	<1%
107	Bogumil Ulanicki, Kalanithy Vairavamoorthy, David Butler, Peter L.M. Bounds, Fayyaz Ali Memon. "Water Management Challenges in Global Change", CRC Press, 2020 Publication	<1%
108	Herman Wheeler. "Law, Ethics and Professional Issues for Nursing - A reflective and portfolio-building approach", Routledge, 2013 Publication	<1%
109	Hermanus, Mavis Ann. "The Mine Health and Safety Act - Success or Failure?: A Critical Assessment of the Aetiology and Impact of	<1%

the Act of 1996 with Reference to Context, Tripartism and Risk Management", University of the Witwatersrand, Johannesburg (South Africa), 2025
Publication

---

110 Maseko, Tshabata. "Teaching English as Home and as First Additional Language in the Further Education Training Phase in Desegregated Urban Schools in Johannesburg", University of Johannesburg (South Africa), 2021 <1%
Publication

---

111 Matlou, Mmatlou Fridah. "Transition Support Needs of the Novice Clinical Nurse Educators at a Public Nursing College in Gauteng: A Case Study", University of Pretoria (South Africa), 2023 <1%
Publication

---

112 Melissa Stepney, Samantha Martin, Magdalena Mikulak, Sara Ryan, Jay Stewart, Richard Ma, Adam Barnett. "Improving the experience of health services for trans and gender-diverse young people and their families: an exploratory qualitative study", Health and Social Care Delivery Research, 2025 <1%
Publication

113	Michael A. Grodin, Daniel Tarantola, George J. Annas, Sofia Gruskin. "Health and Human Rights in a Changing World", Routledge, 2013 Publication	<1 %
114	Mohan, Sruthi. "Diabetes Distress and Related Factors Amongst Type 2 Diabetic Patients Attending Primary Health Care Facilities in Ekurhuleni Health District, Gauteng", University of the Witwatersrand, Johannesburg (South Africa), 2025 Publication	<1 %
115	Mohd Fauzy Samsudin, Yin Cheng Lim, Thinni Nurul Rochmah, Maznah Dahlui. "Assessing the performance of non-specialised private hospitals in Malaysia - an upper-middle-income medical tourism destination country using the Pabón-Lasso model", BMC Health Services Research, 2024 Publication	<1 %
116	Mthombeni, Siyanda Ian. "Factors Influencing the Migration of South African Emergency Care Practitioners to the Middle East.", University of Johannesburg (South Africa) Publication	<1 %
117	Naidoo, Nireshni. "Streptococcus pneumoniae Serotypes and Mortality in Adults in South Africa: Analysis of National	<1 %

	Surveillance Data (2003 – 2008)", University of the Witwatersrand, Johannesburg (South Africa), 2025 Publication	
118	Van Gysel, Jens E. L.. "A Usage-Based Account of Ongoing Structural Changes in Sanapaná: Grammar Sketch and Case Studies", The University of New Mexico, 2024 Publication	<1 %
119	ajhpe.org.za Internet Source	<1 %
120	d-scholarship.pitt.edu Internet Source	<1 %
121	digital.library.adelaide.edu.au Internet Source	<1 %
122	eprints.soton.ac.uk Internet Source	<1 %
123	era.ed.ac.uk Internet Source	<1 %
124	etd.cput.ac.za Internet Source	<1 %
125	etd.uum.edu.my Internet Source	<1 %
126	futures.issafrica.org Internet Source	<1 %

127	m.moam.info Internet Source	<1%
128	stax.strath.ac.uk Internet Source	<1%
129	www.accessdata.fda.gov Internet Source	<1%
130	www.assaf.org.za Internet Source	<1%
131	www.canada.ca Internet Source	<1%
132	www.cover.co.za Internet Source	<1%
133	www.dpsa.gov.za Internet Source	<1%
134	www.nice.org.uk Internet Source	<1%
135	www.researchgate.net Internet Source	<1%
136	Elizabeth Hull. "Contingent Citizens - Professional Aspiration in a South African Hospital", Routledge, 2020 Publication	<1%
137	Makaula, Nobuhle Princess. "Experiences of Adult Children Living With a Mentally Ill	<1%

Mother", University of the Witwatersrand, Johannesburg (South Africa), 2025
Publication

138 Ntlhakana, Liepollo. "Occupational Noise Induced Hearing Loss in South African Miners: Risk Assessment Explored at a Platinum Mine in South Africa", University of the Witwatersrand, Johannesburg (South Africa), 2025 <1%
Publication

139 Ozigbu, Chamberline Ekene. "Beyond Vaccination Coverage: A Critical Look at Zero-Dose Children in Sub-Saharan Africa", University of South Carolina, 2023 <1%
Publication

140 Tsakane P. Mashaba, Moliehi Matlala, Brian Godman, Johanna C. Meyer. "Implementation and monitoring of decisions by pharmacy and therapeutics committees in South African public sector hospitals", Expert Review of Clinical Pharmacology, 2018 <1%
Publication

141 Mabuda, Tendani Bernard. "Aspirations, Economic and Social Well-Being of Professional Nurses in Selected Provinces of South Africa", University of the Witwatersrand, Johannesburg (South Africa), 2025 <1%

Publication

142	Mokgethi, Millicent Johannah Thandi. "Wound Assessment and Patients' Knowledge of Wound Care at a Rural Community Health Centre in the Bojanala District, Rustenburg", University of the Witwatersrand, Johannesburg (South Africa), 2025 Publication	<1 %
143	Mulutsi, Eva Nkeng. "Implementation of the Mental Health Care Act in Psychiatric Hospitals", University of the Witwatersrand, Johannesburg (South Africa), 2025 Publication	<1 %
144	Robert D. Gibbons, Anup Amatya. "Statistical Methods for Drug Safety", Chapman and Hall/CRC, 2019 Publication	<1 %
145	Urajnik, Diana . "Attrition from child/youth mental health treatment: The role of child symptoms", Proquest, 2014. Publication	<1 %
146	Vermaak, Frances Ann. "Factors Influencing the Clinical Learning Environment: A Student Perspective", University of the Witwatersrand, Johannesburg (South Africa), 2025 Publication	<1 %

147	Yahaya Hills Kagali Sekagya, Charles Muchunguzi, Payyappallimana Unnikrishnan, Edgar M. Mulogo. "A grounded theory study of beliefs underlying use of ancestral spirits for healing among Baganda traditional spiritual healers in Central Uganda.", Cold Spring Harbor Laboratory, 2024 Publication	<1 %
148	ro.ecu.edu.au Internet Source	<1 %

Exclude quotes	On	Exclude matches	Off
Exclude bibliography	On		