The perceptions of the Wits MPH alumni on the role of the Wits School of Public Health MPH qualification on their work and careers

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Declaration

I, Barbara Laura Green-Thompson, declare that this research report is my own work. It is being submitted for the degree of Master of Public Health at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at any other university.

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Abstract

Ongoing evaluation of the responsiveness of Masters degree programmes in public health in impacting on improvement of public health, is essential. The aim of this research was to explore the perceptions of the Master of Public Health (MPH) alumni from the WSPH regarding the influence of the MPH qualification on their work and career path. The study employed a mixed methods study design using in-depth interviews with a semi-structured interview guide and a self-administered questionnaire. Findings showed that Findings showed that participants' diversity enabled the alumni to engage confidently in a variety of health system contexts. Participants described stimulating teaching strategies that facilitated the development of new perspectives and enhanced their critical reflection. Their confidence grew through the course contributing to leadership opportunities and work progression. Positive programme outcomes was duplicated in the quantitative results where promotions, career opportunities and further study was identified. Ongoing review ensured responsive, relevant and adaptable programmes.

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List of Abbreviations

RCS	-	Research capacity strengthening
LMICs	-	Low and middle-income countries
MDG	-	Millennium Development Goals
MPH	-	Master of Public Health
PH	-	Public Health
SsPH	-	Schools of Public Health
SSHA	-	Sub-Saharan Africa
WHO	-	World Health Organization
WITS	-	University of the Witwatersrand (Faculty of Health Sciences, 2010)
WSPH	-	The School of Public Health, University of the Witwatersrand

Chapter 1: Introduction

1.1 Background

There are significant health challenges in low and middle-income countries (LMIC) particularly in Africa and, more particularly, in Sub-Saharan Africa (SSHA) which carry a growing burden of both communicable and non-communicable diseases (1-3). This burden and the inability to reduce its impact stems from multiple, complex and diverse causes which reflect the failure of health services, an inadequate health workforce, poor health information management, inaccessible medical equipment and technologies, inappropriate or inadequate health financing and significant deficits in leadership and governance (4-6). The World Health Organization (WHO) describes these elements, when functioning optimally, as key blocks in the building of an efficient health system (7). The lack of synergy between these components usually manifests as health inequities between and within countries (7, 8). This has been and still is the reality of many LMICs particularly in Africa and sub-Saharan Africa (2, 9-11). Addressing these inequities requires realistic, long term and practical interventions that consider the broad areas of public health (8).

It is argued that increased efficiency and effectiveness in distributing limited resources in health to areas of highest priority, often learned through qualifications in public health, may enhance the capacity to develop better health outcomes (12, 13). To address these gaps, public health programmes have been implemented globally (13). Concerns have been expressed that public health graduates in LMICs are inadequately skilled to transfer their learning into their roles within health management (12, 14). It is argued that the course competencies should be derived from an African framework of public health where there is an emphasis on health system strengthening and leadership (15). One of the questions that arises is the extent to which transformative pedagogies have been applied in the public health programmes especially in

LMICs (16). This study therefore aims to evaluate the perception of the alumni on the impact of the MPH on their capacity to take up leadership positions, enhance work output and influence career growth.

1.2 Literature review

1.2.1 Master of Public Health programmes in LMICs

Public health is defined as "the science and art of preventing disease, prolonging life and promoting health and efficiency through organized community effort" (17). Strong, highly skilled, knowledgeable and insightful public health leaders are required to address health inequities from an interdisciplinary perspective (18). Many training institutions established a range of post-graduate programmes in response to the identified shortage of public health practitioners in LMICs (15). The aim was to develop public health leadership capacity to address the inequities in their health systems (19-21). The World Health Organisation (WHO) estimated in 2006 that of the 400 schools of public health worldwide, only 50 were located in Africa (22). At that time, 57 countries internationally, 36 of these in Africa, were estimated to be in crisis due to a shortage of qualified health workers (22).

Some of the post-graduate programmes implemented in LMICs were a Master of Epidemiology with a focus on evidence-based research (19). Other schools provided both Masters of Public Health and epidemiology as separate qualifications with various tracts of specialty (23, 24). Many were offered as distance learning programmes while some on-line programmes were linked to national accredited institutions (24).

Investing in effective public health programmes may allow for the building of new knowledge and skill in public health leaders which is key to enabling the targets of health indicators (25) however, how does one measure the acquiring of new knowledge? The notion of transformative education is one of the key deliverables expected of these public health training programmes.

1.2.2 Creating knowledge that enables transformation

The WHO in their recommendations on transformative education emphasises the need for developing and implementing responsive training programmes aligned to the changing needs within a country's own population (26). This is emphasised by the Lancet Commission which suggests taking a health systems-based approach to education and teaching. They further recommend using a competency based approach that is aligned to the identified public health needs of a community (16).

Habermas identifies three common areas in which human interest creates new knowledge (27). These are the area of work and the ability to influence the environment, the practical component where individuals share experiences, challenges and problem-solving techniques and the emancipatory area, that involves self-knowledge, experience and the meaning of "knowing" (27).

The notion of emancipation is further interpreted by Mezirow as a transformation of perspective which differs distinctly from acquiring only cognitive knowledge (28, 29). Mezirow argues that transformative education ensures a change in the perception of the world by the learner through the process of acquiring self-knowledge, sharing this knowledge with others, realizing the commonalities and differences and reaching an understanding of how to engage with the world from a transformed life view (27). In the revised version of Mezirow's transformative theory, there were four processes identified. The first is where the individual engages and elaborates on existing knowledge however due to ongoing critical thinking, new habits of reflection and ways of thinking start to develop (30). This then leads to changes in how individuals think about various issues. This critical self-reflection process changes the way individuals think about issues and problems and eventually this leads to redefining the problem and therefore influencing engagement with the problem from a different perspective

(31). This describes the fourth component in the revised theory which is transformative learning called “transforming points of view” (31).

One example could be on the social determinants of health and how HIV has become a pandemic in many in African countries especially in LMICs (32, 33). Being able to impact on effective and efficient interventions means understanding the drivers of HIV transmission and addressing these issues from a multidisciplinary and Intersectoral perspective (34-36).

Public Health programmes need to be assessed for their capacity to enable perspective transformation in their graduates. An example could be forming linkages between data collection, research and the utilization of evidence to inform policy (23). Frenk and Chen (16) suggest that education should foster a change in mind-set which in turn acknowledges the challenge and seeks creative solutions (30). Currently little is known about the extent to which those that have undergone programmes such as the MPH carry over transformed perspectives to the workplace and the world at large and that is what the study aimed to examine.

1.2.3 Measuring programme impact and outcomes

The validation of key competencies and measuring of outcomes in Public Health programmes have been carried out in public health training institutions in America and Europe (37, 38). One of the outcomes of the European evaluations identified that public health programmes need to be country specific and responsive to their own populations and the needs of their individual health systems (38). The translation of these competency systems for the LMICs context has not been subjected to the same research rigour. Zwanikken (39, 40) conducted a systematic review looking at the outcome and impact of Masters programmes in Health and Health Care. It showed a paucity of evaluations on the outcomes and impact of Masters’ degrees in LMICs. The review shows that most of the evaluations done have been through graduate surveys that have mainly focused on outcome with little exploration on the impact of the programmes

beyond graduation (11, 39). Young and Naude (19) completed a study of the Masters in Clinical Epidemiology programmes in Africa that demonstrated the alumni's positive response to their programmes. The results demonstrated that there was the attainment of the expected outcome of capacity building in research, practice and teaching of Clinical Epidemiology.

There are many programmes that have been implemented in SSHA and have evolved since inception; these require evaluation for achieving intended outcomes and impact (41, 42). These public health programmes are offered through initial contact teaching with further assignments and research provided through online teaching platforms. Most of the programmes are university-based with little or no service attachment or field placement (42). Training institutions offering the MPH in South Africa are doing so independently with their own processes of assessment, quality assurance and very little external evaluation. These institutions are also plagued by high drop-outs, low throughput and delayed time to completion which impacts on the provision of qualified public health leaders (42, 43). The University of the Witwatersrand in Johannesburg offers one of the programmes; the Master of Public Health (MPH). The programme was developed and implemented within the Department of Community Health, which later became the School of Public Health, in the Faculty of Health Sciences at the University of the Witwatersrand, in South Africa (44). In light of the aforementioned gap of evaluating the influence of public health programmes, this study aimed to evaluate the extent to which this MPH is achieving the overall goals of creating responsive post-graduate public health training programmes for public health leaders in LMICs.

1.3 History of Wits Master of Public Health Degree

The Wits School of Public Health (WSPH) facilitates and contributes to building new knowledge through a variety of training programmes, various research projects and

government policy development (21). The institution offers a range of post-graduate programmes including a Master of Science in Epidemiology and Biostatistics, a Master and Diploma of Public Health (MPH), a Master of Medicine in Community Health, a Masters in Demography and Population Studies (21, 45).

The MPH programme was established in 1998 and was an amalgamation of a Diploma in Public Health and a Diploma in Health Service Management (44). Since its inception students have represented more than 15 different countries mostly from within Africa and a few from industrialised countries including Canada and the United States (44). The programme is offered as a full time or part time option and is designed to accommodate candidates who are employed on a full-time basis (44).

Each course, delivered as part of the MPH programme consists of a combination of 40 hours of contact learning and 60 hours of self-study (44). On application, students are required to select one of five fields of specialisation (44). The fields of specialisation at the time of the study were Health Systems and Policy, Social and Behaviour Change Communication, Occupational Hygiene, Rural Health and Maternal and Child Health (44). Other fields of specialisation have been offered in the past such as Disaster Management, Hospital Management and Health Measurement. A research report was a requirement for attaining a degree in Public Health while a Diploma did not require one (44). Building new knowledge to empower public health leaders is one of the key objectives of the Master of Public Health (MPH) degree (21).

The intention of these public health post-graduate programmes are essential to equipping the graduates with the knowledge and skills required to manage the competing priorities where there are high burdens of diseases and limited resources (13, 25).

1.4 Statement of the problem

Post-graduate educational institutions globally have recognized that graduates in public health that are in public organisations need to acquire the necessary knowledge and skills but more importantly must be able to apply these skills to manage the complexities encountered in health systems (38, 46). The revised curricula of the Wits Master of Public Health was designed to develop the skills of leaders and managers within the broad areas of public health. This to develop appropriate approaches that will impact health outcomes at a population level, and to be able to plan programmes, monitor their implementation and evaluate the extent to which they achieve these goals and objectives (37, 38). It also seeks to introduce leaders, managers and researchers to the core disciplines of public health and guides them on how to use evidence to inform decisions and plan interventions in the public health sector (44). These acquired skills would allow the alumni to contribute to health policy development and implementation as well as managing the process and rollout of new policies (47). Executives are expected to demonstrate measurable outcomes and effectiveness and to practice evidence-based management. At the same time, academic and professional programs are emphasizing the attainment of competencies related to workplace effectiveness. The shift to evidence-based management has led to numerous efforts to define the competencies most appropriate for healthcare (48). The question is whether graduates feel confident and equipped to translate the knowledge and skill acquired during the MPH into effective and efficient practice to make a meaningful contribution as leaders in public health.

1.5 Justification for the study

There are a number of post-graduate programmes in public health internationally (13, 18) one of which is the MPH offered at Wits University. This training programme has been run for fifteen years and has been consistently evaluated both internally and externally by students

while they are studying (44, 49). A study was conducted in assessing factors associated with the throughput of MPH students (50). The programme would however benefit from understanding the extent to which and how graduates from the MPH programme have been able to implement the skills and content that they acquired through the programme. This research project seeks to address this gap by exploring the perceptions of the alumni of the contribution of the MPH programme to their careers and in the places where they work.

1.6 Aim of the Study

The aim of this research was to explore the perceptions of the MPH alumni from the WSPH (from 2005 to 2013) regarding the influence of the MPH qualification on their work and career path.

Objectives of the study

1. To describe where the WSPH MPH graduates from 2005 to 2013 are currently employed, their former and current positions in the workplace and enrolment for further study.
2. To explore their perceptions of the impact of the MPH qualification on the graduates' promotions or new positions from 2005 to 2013.
3. To explore the perceptions of the MPH alumni from 2005 to 2013 on how on how the learning environment, pedagogy and teaching methodologies used the MPH programme has influenced their learning and skills acquired.
4. To explore the perceptions of the MPH alumni from 2005 to 2013 on how they apply the knowledge and skills acquired in the programme in their former and current workplaces.

Chapter 2: Methodology

2.1 Study Design

The study was a mixed methods study design that used both qualitative and quantitative methods. The quantitative component involved a survey using a self-administered questionnaire. The qualitative method of the study, which involved in-depth interviews using a semi-structured interview guide enabled the researcher to probe further to obtain in-depth and rich data. Using a combination of both quantitative and qualitative methods enables the researcher to make deductions based on two data sources enabling the creation of new knowledge (51). This mixed methods approach may offer additional insights into the answering of a research question as opposed to using only a single paradigm (51). This rigour adds a richness and depth to the outcomes identified in the interpretation of the findings (52).

2.2 Study population and sample

The study population included all alumni who graduated from the Master of Public Health (MPH) at the University of the Witwatersrand between 2005 and 2013. Due to the challenges in sourcing participants, the target year was extended to 2014 increasing the population size to 160.

The existing databases of graduates maintained by the Wits alumni office and the School of Public Health for the period 2005 to 2014 were utilized. Social networking facilities such as "Linked In" was also used to find potential participants. The MPH had over the proposed period an intake of an estimated 30 participants at each intake and this has varied across the years. For the qualitative component, purposive sampling was used.

Out of the 19 participants who completed the online survey 15 participants further completed the qualitative component by agreeing to be interviewed. Alumni who downgraded from a MPH and exited with a Diploma in Public Health were excluded from the study.

2.3 Piloting

A pilot study was conducted with three participants who had completed the MPH coursework but had not graduated as yet, to assess the understandability and appropriateness of the questions. Modifications to the questions on the semi-structured interview guide and the survey questionnaire were done, based on their feedback.

2.4 Data Collection

The post-graduate database obtained from the Wits University Health Sciences faculty was used as the primary source of participants. The e-mail addresses on this database were used to send out the first electronic communication. The telephone numbers on the database were also used to source participants by obtaining their e-mail addresses. It is important to note that there was a poor response rate due to a range of challenges. These are articulated below.

Survey Monkey was used to collect the quantitative data and included an invitation letter to participate in the study. Participants were requested to complete an information sheet (Appendix I) and they were given the option to consent to participate in an in-depth interview either face to face, telephonically or on SKYPE. The advantage of using Survey Monkey enabled participants to remain anonymous if they so preferred. The electronic ticking of the acceptance box on Survey Monkey was considered participant's consent to participate in the study. The survey explored aspects such as demographic information including their age, sex, field of study and disciplinary background. Further questions sought to understand aspects such as the nature of their employment during their studies and after the completion of their MPH; the extent of the usefulness of the MPH in their own work; and the impact of the knowledge and skills acquired during the programme to engage with various health issues using a different lens to engage with public health issues.

The online survey was carried out from July 2015 to February 2016. Repeated electronic communications were sent out monthly during this time. The researcher requested the participant to indicate if they would be interested in participating in a semi-structured interview. Those participants who responded that they were not interested in the research were excluded from further electronic communication.

When the emails bounced, every effort was made to find a current email address for the graduates. All contact information on record was used including cell, land-line telephone numbers and next-of-kin contact details. During the initial communication more than 80% of the contact details were invalid. Participants had either changed employment and the databases had not been updated, or they had student e-mail addresses for Wits University that had become invalid. A protocol amendment was sought for the study duration to be extended from 2005 - 2013 to 2005 – 2014 to identify a more recent sizeable graduate population (Appendix II). Two methods of social media such as Linked In and Facebook were used to track participants. In addition, snowballing was attempted with identified graduates and contact was made with their permission.

2.4.1 In-depth interviews

The in-depth interviews were carried out from August 2015 to March 2016. Initial communication was done electronically via e-mail to arrange for the interviews or by phone when e-mail communication was delayed. Most of the interviews were face-to-face and conducted at participants' workplaces and lasted for approximately one hour each. All participants were expected to complete a consent form to give consent to both be interviewed (Appendix III) and to be audio-recorded during the in-depth interviews (Appendix IV). The question explored in the in-depth interviews were informed by the quantitative data collected

from the survey questionnaire through Survey Monkey (Appendix V). Before conducting the interviews, all participants were provided with the in-depth interview guide questions to enable prior engagement with the information that would be explored (Appendix VI). These open-ended questions also provided time for participant reflection prior to doing the actual interview. The interview questions covered the participants' perception of the overall impression of the programme, the benefits of the programme, the gaps and whether the qualification had an influence on their employment and career/s.

Once initial contact was made, snowballing was used as a means of contacting as many participants who had changed their places of employment and/or contact details. For instance, some had however kept in contact with their colleagues with whom they had completed the MPH course.

2.5 Data management and data analysis

The survey results used the median, mode and range to determine the years taken for graduation. A ratio was used to analyse the numbers of male to female participants as well as the part-time and full-time participants. A voice recorder was used to capture the interviews. The data from the audio recordings was transcribed by the researcher. Accuracy of the transcriptions was ensured by playing back each recorded interview while reading the transcriptions. The data was analysed using thematic analysis to identify pre-determined and emerging themes which were thereafter coded. Thematic Analysis provides a robust, systematic framework for coding qualitative data which is then used to identify patterns across the dataset in relation to the research question (53). The coded data was then categorized into different sub-themes and the analysis was reduced to identify the core themes. Use was made of common repetitions, categories, similarities and difference to codify the data. To confirm the reliability of the results, the researcher revisited the original transcripts to explore any

possible contradictions. This was also to ensure trustworthiness and objectivity of the data. Verbatim quotes were used in the results section to confirm that the perception being depicted were those of the respondents. Despite the application of these various processes to ensure rigour, my interpretation of the findings may be influenced by my perceptions and personal experiences. The data quality was ensured by my ongoing monitoring of the data and revisiting my perceptions or interpretations as ongoing engagement with the results continued. As a researcher in this study, and having engaged as a MPH student, my experiences and biases may have indirectly influenced the interpretation of the data. My findings may have been influenced by my own preconceived views and lived experiences in the construction of meanings throughout the research process and in the analysis (54). The sharing of and the iterative process of analysis with my supervisor to some extent mitigated this limitation.

2.6 Ethical considerations

Ethical clearance for the study was obtained from the University of the Witwatersrand Ethics Committee on the 28/05/2014 (Certificate number: M140445, Appendix VII). All study participants were provided with a consent form either electronically or on paper. The consent form provided all the relevant information regarding the purpose and process of the study. This also included the consent form allowing for audio recording of the interviews. The demographic data collected on survey monkey and the transcripts were each given a unique number and stored separately. Participants were given the assurance that their identity would remain anonymous and references related to Participant 1 and Participant 2 would be used as identifiers. The on-line survey stipulated that completion and submission of the survey included the signing of consent. For the qualitative interviews, all participants were required to submit their signed consent either electronically as scanned documents or as physical copies.

This was implemented prior to the interviews being conducted where participants provided consent accordingly.

Confidentiality was ensured by keeping the anonymised data including the audio recordings on a computer. The data could only be accessed by the researcher and her supervisor through a password. The data will be archived for at least two years after publication of the findings and for six years if there is no publication.

Chapter 3: Results

3.1 Introduction

This chapter describes both the qualitative and quantitative data. The quantitative component primarily provides descriptive information about the participant's ages, disciplines, employment information and MPH track. The rest of the chapter focusses on the qualitative components of the data.

The Quantitative component was carried out as an on-line survey from June 2015 to March 2016. Using survey monkey as the data collection instrument, various descriptive information was requested ranging from details of the study period, basic qualifications, career promotions as well as information regarding further studies.

3.2 Survey Results

An online survey was sent to 160 graduates; however, 19 responses were received due to the challenges described in the methods chapter. The response rate for the on-line survey was 12%. Despite this poor response rate, the data sufficiently provided a description of the participants which include those who participated in the interviews which were 15 out of the 19 participants.

Most of the participants completed the MPH as part-time students with a block release for week long contact teaching. The three most common specialised tracks in the sample were Management & Health Sciences, Health Systems & Policy and Hospital Management (Table 1). The participants' year of registration ranged from 2001 to 2012. Six of the population sample took two years to graduate from the year of registration. The longest time taken to graduate was 11 years. The sex of the participants were almost equally spread.

Table 1: Characteristics of participants and their MPH Tracks

Variable	**n (%)**
MPH Track	
• Management and Health Sciences	4 (21)
• Health Systems and Policy	4 (21)
• Maternal and Child Health	1 (5)
• Occupational Hygiene	2 (11)
• Social & Behaviour Change Communication	2 (11)
• Rural Health	1 (5)
• Hospital Management	4 (21)
• Decline to answer	1 (5)
Median - years taken for graduation	4 (26)
Mode - most frequent number of years taken for graduation	2 (32)
Range of years for graduation	2 – 11
Ratio Female to Male	10:9

n: sample

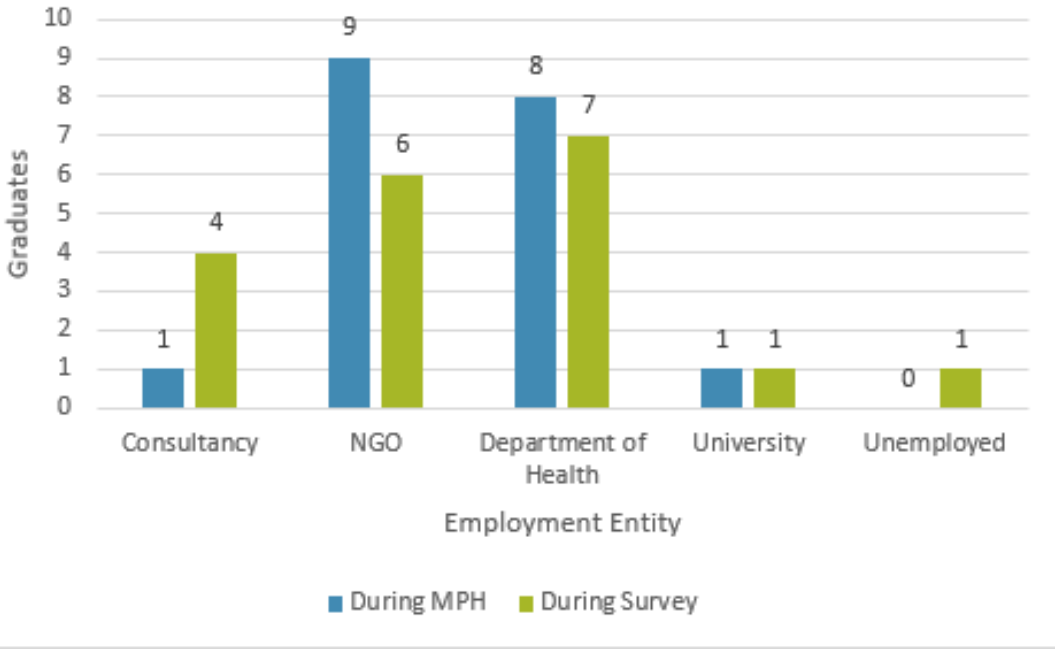
There was a varied selection of disciplinary backgrounds among the participants (Table 2) Most of the participants were based in the health sciences disciplines, some in the social sciences with a journalist from the humanities field. Job titles varied between participants with a few occupying senior management positions (CEOs), while others were in junior and middle level management.

Table 2: Disciplinary and career background

Disciplinary Training	**Job title while studying MPH**	**Type of organisation while studying MPH**
Social Work	Programme Manager	NGO
Environmental Health	Senior Environmental Health Officer	Local Government
Medicine	Consultant (part-time)	NGO
Dietician	Programme Manager	NGO
Speech Therapy	Speech Therapist & Audiologist	Department of Health
Physiotherapy	CEO	Hospital Services
Analytical Biochemistry	Chief Research and Development Officer	Parastatal (Quasi-government)
Physiotherapy	Part-time Junior Lecturer	Research Entity
Environmental Health	Lecturer Environmental Health	Research Entity (NGO)
Journalism	Consultant	NGO
Laboratory Science	Lab technologist	NGO
Social Work	Hospital CEO	Hospital
Biomedical sciences	Lecturer	Research Entity (NGO)
Veterinary Medicine	Full time Studies	N/A
Professional Nursing	Programme Manager for Youth HIV prevention programme	NGO
Oral Health	Acting Chief Director	District Health Services
Physiotherapy	Provincial Government	Provincial Government
Medicine	Maternal Health Program Manager	Research Entity (NGO)

Environmental Health	Programme Manager	NGO

Figure 1: Employment information



During the period of study towards the MPH degree, the NGO sector was the most common employment entity (Figure 1). At the time of taking the survey however, the Public Health sector was the primary employment entity. Interestingly there was a shift in occupation from formal employment to private consultancy at the time of the survey. One graduate residing in Canada however was unable to find employment.

Regarding the graduates' employment history, twelve participants were no longer employed at the same organisation and two worked independently as full-time consultants Table 3 below demonstrates that 63% of the alumni have changed their places of employment since completing their MPH. The period of work at the time of the study showed that 47% were employed at their current institution for less than a year and 37% for more than a year.

Table 3: Employment changes (total n = 19, data presented as n(%)

Still work for same organisation		Period working for current organisation			Promoted		
Yes	No	Months	Years	No response	Yes	No	No response
7 (37)	12(63)	9 (47)	7(37)	3(16)	14(74)	4(21)	1(5)

Of the other four graduates, two still occupy the same leadership positions out of personal preference and the other two are currently self-employed so promotion does not apply to them. Of the 19 respondents, 9(47%) had embarked on further studies. Of these nine participants, two were studying an additional Masters degree, four were on PhD programmes and three are engaged in other programmes.

In probing how useful the MPH studies were to their work, most participants rated the programme useful or extremely useful. Only one participant rated "not at all useful" but declined the qualitative interview process.

Despite this small sample, there are some inferences that can be made from the quantitative component: there was a shift noted in employment, most of the participants were either engaged with or had completed further post-graduate studies and there were more participants employed within the Department of Health than in the NGO sector.

3.3 Qualitative Results

This section describes the results of the qualitative interviews of 15 participants out of the 19 who agreed to be interviewed. The areas explored were the graduates' perceptions of their experiences during the MPH programme, the influence and or impact of the MPH on their ability to do their work and career advancement opportunities.

Five main themes emerged from the data; motivation to study for an MPH, responsive curriculum, perspectives of personal growth and development, positive impact on work capacity and impact on career promotional opportunities.

3.3.1 Motivation to pursue the MPH programme

The reasons for starting and completing the MPH degree differed between participants. For some, the motivation to do the degree was because of a strategic decision by their management either within a government, NGO, or learning institution, or there was an internal need. The following facets related to motivation to study this degree emerged from the participants.

3.3.1.1 Self-motivated learning

For most of the participants, the impetus for further study was self-motivated. Participants who had completed their basic qualifications within their specified fields still felt the need for further capacity development. This was expressed as an internal learning need either within their areas of work, areas of influence and/or their ability to impact on the demands within the public health sector.

One of the participants articulated the choice of public health as a post-graduate degree to improve skills and interventions as quoted below:

> *"That's why I particularly chose public health so that I could expand and improve that which I am doing in the community and in the NGO world." (P5)*

Other participants were seeking more depth and insights into the structure and functioning of the public health space:

> *"I just thought I needed a more solid ground in public health." (P10)*

For others, the motivation was to change their type of work as articulated by one participant below:

"I wanted to find another way, another avenue of my work." (P9)

For another participant, the trajectory of learning was specifically directed at acquiring specific skills related to academia as their basic degree was clinically focussed:

"Because my undergraduate degree is so clinically oriented, I felt it didn't give me the other non-clinical skills that I need to be able to practice as a clinician. I also loved research, I didn't get much of that in my undergraduate training. I knew I wanted to be an academic and I didn't feel my undergrad degree had prepared me for that." (P13)

The motivation to embark on completing the MPH also highlighted another theme that is related to the numbers of applicants competing for a place on the programme as is discussed below.

3.3.1.2 Popularity of the MPH programme

Many of the participants mentioned how sought after the Wits MPH degree was and how lucky they were to be accepted into the programme. They were of the view that the course is oversubscribed, and some mentioned how many applicants were not accepted or placed on waiting lists. One participant shared on her initial encounter in the MPH class.

"My first experience was that the class was big. There was a lot of interest in people wanting to do the MPH programme" (P6)

They also spoke about the advantages of having a MPH from Wits University with its reputation of excellence. This is evidenced by the quotation below:

> *"Some institutions are more reputable than others and Wits is one of the best!" (P6)*

This perception went beyond the immediate circles of Johannesburg as another participant sought advice from a senior colleague at a university outside of Johannesburg. Their view of Wits being one of the best places to places to do their MPH at, and is evidenced by the quotation below:

> *"When I asked him where I should go to study the MPH he said to me that Wits is the best place that I could go to." (P3)*

This positive perception was reiterated by another participant who spoke about the reputation of the standard of the Wits MPH as is quoted below:

> *"I think that firstly the quality of the degree itself, I think it's earned a very high reputation. So just the fact that you have an MPH from Wits already I think puts you in a certain elevated position.*" *(P15)*

For many of these participants this initial motivation seemed to impact on their perceived experience while engaging with the degree but also seemed to impact positively on their perceived benefit of the programme.

> *"It was really a worthwhile investment for me." (P12)*

While the popularity of the MPH programme provided the impetus for some participants to do the programme, this reputation seemed to resonate with management structures at the participants' workplaces. This is described in the next theme below related to the influence of management in participants pursuing the MPH degree.

3.3.1.3 Influence of Management

For some of the participants, the motivation came as an external influence in the form of their employers, either expressed as a prerequisite for promotion to management positions or as an expectation for promotion.

The statement of the respondent below denotes an expectation of completing the MPH as a promotional requirement:

> *"I was told that I couldn't move up into a more senior role because I wasn't a specialist….. a medical specialist!" (P8)*

Another participant expressed disappointment at not being promoted on completion of the degree, however, despite their initial motivation not being fulfilled, she expressed her perception of the programme having marketable value as is articulated below:

> *"I was not promoted at the end of my MPH and sought other employment. But now that I have my MPH, I am definitely more marketable." (P8)*

In one government institution the MPH degree became a requirement as part of their leadership development for CEOs of hospitals as is quoted below:

"It was decided that people who were going to manage health institutions should have some form of health management qualification and the public health MPH for hospital managers was their choice … they started with the CEOs" (P1)

However, one participant expressed frustration that the course did not provide for her the immediate knowledge and skill she needed to fulfil her role as hospital CEO. They indicated how they required practical skills to address the day-to-day events of an organisation as is denoted in the quotation below:

"But what I needed to know was what to do if the boiler room equipment burst or if the theatre flooded, what to do?" (P1)

Despite this expression of frustration, however, this same participant expressed having benefited from the programme in terms of quality improvement in the management of a public health facility:

"I realised for example there was a module on quality …. how do you enhance quality in the institution…? so, from the beginning, I realised that the MPH would be of benefit to somebody like me who is managing a public health facility." (P1)

This section has discussed the motivating factors for pursuing an MPH programme. Whether the influences were internally or externally motivated, all participants expressed satisfaction at having completed the degree. Engaging with the multiple motivations for doing the

programme, it became apparent that there were so many layers of diversity related to the participants and the programme that it gave rise to the next theme of accommodating diversity.

3.3.2 Accommodating diversity

The MPH programme brought together applicants from varying origins, cultures, ages, areas of work and methodologies of learning. This warranted the articulation of specific areas of diversity that impacted the participants' engagement with the programme, the first of which is discussed in the theme related to complexities of diversity below.

3.3.2.1 Complexities of diversity

Most of the participants spoke about the diversity of the people who were enrolled on the programme each year. One participant mentioned the cultural diversity of the backgrounds there were within the classes as quoted below:

> *"People were from all over the whole world. We had French and German people. We had lots of people from the rest of Africa: Kenya, Somalia, Botswana, and Swaziland. Our class was the whole world." (P6)*

Another participant was excited by the richness that the diversity added to the learning experienced during the programme. As articulated below, the professional diversity enabled multidisciplinary perspectives to inform and address solutions on specific health problems:

> *"The professional diversity was good, so you were in a group with a doctor, a psychologist, or a nurse and a researcher and an NGO worker. You know it was just so*

rich, it is not this homogenous group of people who all do the same thing and think the same way." (P9)

Given the diversity of the participants, the programme accommodated people from diverse persuasions and backgrounds and the facilitators used the varied knowledge, skill and experience as instruments of learning during implementation of the MPH programme. This necessarily meant catering for complex learning spaces which forms the next sub-theme.

3.3.2.2 Complexities of learning

The participants had a wide range of differing professions, varied cultures, levels of knowledge, expertise and insights. Some participants entered the MPH fresh from their undergraduate degree, while others had spent 10 years in their discipline before embarking on this course. The perceptions, understanding and methods of learning were vastly different, and the way learners engaged with the content, meant that some felt more disadvantaged than others. The differing levels of capacity made engaging with the programme more challenging for some participants as indicated below:

"I'm sure I think that's also because we came from such diverse backgrounds and there were people who were more advanced than others in terms of that. I certainly needed more support." (P4)

Some of the participants had never engaged with some areas of the programme, particularly the statistics and financial components. Another participant discussed the challenge of having returned from a long absence of engaging with mathematics and statistics and therefore the understanding of basic concepts took much longer to understand. This is articulated below:

"It was 20 or 25 years back that I did anything in terms of numbers in terms of learning, so it's almost like taking people right back and for me the embarrassment was them trying to teach us these very basic concepts and students not getting it and they were almost like I don't believe that you don't know how to do long division or your multiplication skills are so lacking!" (P3)

It was clear that there were common areas of struggle particularly in relation to financial calculations therefore there was a need expressed for additional time for specific areas as is mentioned below:

"Some people had never done accounting before. There were calculations, formulas, assets and liabilities working out the cash flow statements. Statements of financial positions etc. Financial reporting was also a challenge. I wish that it was allocated more time." (P13)

Some participants who came from countries outside South Africa were more disadvantaged due to their geographical divide, inefficient internet access systems and language difficulties. Most of the participants were working full-time and engaging with the programme remotely. Assignments and assessments often increased stress levels and this was exacerbated by the travelling and connectivity problems with the internet. One participant expressed these struggles below:

"It was like grasping what you could grasp in terms of time and availability and trying to do it over the internet. Maybe things are better now with skype but with African countries, the connectivity was not that good." (P3)

It was perceived that some learners became overwhelmed and disengaged. One participant felt that the scope of certain modules was more clinically oriented which was beyond some participants' ability to grasp especially when not coming from a health sciences background. One participant indicated that those who had a medical background also struggled with the clinical component of some of the modules as expressed below:

"The people that were struggling were not clinical people. They were like OTs. We had a nurse from Malawi who was also battling to grasp the clinical stuff." (P8)

Another participant found specific areas in financial management within the MPH especially challenging and had to attend additional lessons as mentioned below:

"I needed to do additional training, financial management for non-financial managers. I had to do further courses to make sure that I do understand the financial area." (P14)

Despite the complex learning environment and the diversity of the participants, the views were unanimous that all those who graduated felt that they benefited from having completed the programme as articulated by the respondents below:

"My writing was enhanced but my learning was exponential." (P3)
"This is what the MPH does to you, you become a Master in so many areas." (P12)

Most participants indicated how they developed shifts in understanding of particular issues especially those related to the social determinants of health and primary prevention. The respondent below expressed her change in perception:

> *"I started to appreciate why we cannot pump money into a curative system but find a way of strengthening the bottom, so that you can prevent people from getting sick… not wait for people to get sick." (P14)*

This realisation of preventative interventions and preservation of health was mentioned by quite few of the participants. These insights took time to be cultivated during the implementation of the programme. Due to the complexities of learning, diversity of participants and limitations in time and resources various methodologies of knowledge transfer were used. The programme was responsive in that it incorporated multiple teaching methods and changed scenarios to suit common current health system challenges. This unearthed the next sub-theme related to the incorporation of varied teaching methodologies.

3.3.2.3 Complexity of teaching methodologies

To stimulate critical thinking and enable learning, a variety of problem-solving techniques were used to cater for the complex needs of this diverse group of participants. Various teaching methodologies were used including but not limited to didactic lectures, group work, presentations, research, assignments and even site visits.

> *"They pretty much do everything across the board lectures, discussions, assignments…." (P8)*

This variation in teaching methods brought with it successes and challenges in relation to how participants engaged with the programme and with each other during the course. Group work transitioning into teamwork was a positive achievement mentioned by one participant.

> *"It showed me my other side of working within a group and appreciating team work no matter how painful and slow it may be, you need to go through that because you can't go it alone." (P2)*

The style of facilitation was also mentioned where facilitators used various ways to engage learners either in group discussions, participant presentations and individual assignments. Given the diverse backgrounds, this provided the opportunity for sharing various perspectives and approaching the same problem from different focus areas.

> *"We discuss and brainstorm around the task and then go off to find evidence and supporting information and then we come back in the afternoon and then we discuss the case." (P2)*

There was also mention of the transition from undergraduate learning and teaching to a post-graduate paradigm where interpretation and insightful engagement became a prerequisite to addressing complex health issues as denoted below:

> *"You would have to engage and synthesise (emphasised) with the work at a very high level, but it's not like undergrad you know when you have taken in everything and regurgitate it at the end of the year or during exams." (P9)*

The facilitators challenged active participant engagement in the programme to explore a variety of problem-solving methodologies related to their own areas of work. The respondent's view below describes how a lecturer enabled problem solving rather than providing answers to questions posed:

> *"The lecturer was good… most of the time it was us the students talking about our experiences more than him talking about his knowledge and expertise. He worked in a way to helping us deal with the "on-the-ground" issues that we were presenting to him." (P2)*

In terms of shared group work assignments, some participants residing closer to the University were reportedly taking on more responsibility and a heavier workload due to some geographical divide and connectivity problems experienced by peers in their respective groups as remarked on by the respondent below:

> *"People would fly in from other countries and they don't have internet access and it is problematic, so there were two or three people that slog away and the others you know do what they can or not as the case might be but with that group work, it came down to the wire." (P3)*

The group work enabled participants to realise and exercise their strengths however consideration was given to include all types of learners.

As is the nature of these processes, there were mixed views on the experiences of the group work. Some participants were positive about engaging in groups for problem solving and programme development as quoted below:

"I absolutely loved the group work if anything it challenged me to look at old problems in new ways." (P7)

Group work also enabled the demonstration of specific participant strengths as is stated below:

"We were all equal. When we did the presentation, we would then look at who was the strongest in that area, then they would present." (P11)

One participant mentioned how the diversity in the group augmented their end product and also their learning as stated below:

"I think definitely the group approach brings different insights you know and different ideologies, different perspectives than a single person." (P3)

Other participants however found the group work challenging due to varied participant commitment, where some group members worked hard while others didn't without acceptable reasons as stated below:

"Yes, there was lot of dynamics. Some would give 100% effort and others would give 50. At the end that percentage group mark was not for individuals but for the group." (P13)

Respondents reflected on how the simulation of real work environments allowed them to organically deal with group dynamics especially issues related to conflict resolution.

Despite the positive and negative perceptions of the various teaching and assessment methodologies, there was some form of learning whether related to the content or even personal growth. The MPH demonstrates that participants were continually challenged to grow throughout the programme. This necessarily meant that the facilitators had to be equipped to deal with diversity and to ensure that transmission of skill and knowledge is enabled throughout the programme. A variety of teaching methodologies also meant that the calibre of the facilitators became as important as the content presented. This unearthed the next subtheme related to the diversity of the facilitators.

3.3.2.4 Diversity of the facilitators

Most of the facilitators on the course worked at the coalface of these complex areas of public health. It was clear that the participants appreciated the honesty with which the facilitators engaged with the questions and challenges raised and were open to exploring where different interventions could be adopted.

> *"We were able to ask questions like what are the information systems that are being used. Is it real time? Is it technological? Is it pushing back and affecting the results?" (P12)*

Participants valued the insights that the facilitators shared which allowed them to look at the complex layers of health systems and how policies, legislation and politics impact on health outcomes through a different lens as stated below:

"The course helped me to look at epidemiology and TB from a different perspective. Including policies and current legislation… you know… into the policy environment and the factors that affect decisions that are made in our country." (P10)

The facilitators encouraged the participants to grapple with problems themselves rather than providing the answers to the questions that came up during discussions. One participant appreciated the open-door policy of the facilitator but understood that the tools for problem solving were provided and solutions had to be self-generated as mentioned below:

"We knew we could always go to her as a group … she wouldn't give us answers. They guided but allowed you to fumble and stumble along until you came across a solution, so they allowed the learning process to happen." (P4)

Many of the participants also made mention of the variety of guest facilitators employed within various health sectors like the National Department of Health, private health and mining industry. Participants appreciated the various range of backgrounds brought in by these facilitators as it provided multiple perspectives on various health sector fields. The view below reflects this:

"They brought in facilitators who are working out there in the health system. Skilled, knowledgeable in their respective fields and able to share with honesty their challenges (said with emphasis), lessons learnt, and they were able to emphasise and bring to the group the major challenges being faced in the health system." (P10)

Respondents reflected that some facilitators came from a range of institutions that engaged in work that contributes to research and policy development.

> *"They brought in quite a lot of different facilitators like they had people coming in from demographic surveillance." (P15)*

As is demonstrated in the participants' views above, the diversity of the group brought a richness to the sharing with large amounts growth. The diversity of the facilitators as well as the various teaching methods allowed for interactive learning. Some of the challenges encountered by learners were multi–layered ranging from language and information technology access that led to some learners disengaging from certain modules in the programme. This caused pressures within the group that were challenging but interestingly this also increased awareness and sensitivity to those in the class who were advantaged geographically, technologically or clinically. The MPH seemed to integrate effectively the complexities generated by diversity and enabled effective learning in these complex spaces of difference. Another area that was noted was on the content of the programme and its ability to accommodate and respond to the changing health system. This leads to the next sub-theme which is about the regular updating of the curriculum.

3.3.2.5 A responsive curriculum

One of the reasons for choosing the Wits MPH was that participants felt that there was continuous updating of the MPH programme in order to meet the needs of new students each year. In addition, they felt that the programme responded to the complex skills required by a leader working within the public health sector. This led to further views regarding the

continuous updating and revising of the curriculum to suit the needs of the participants applying for the programme as articulated below:

> *"When you speak to the MPH graduates who are coming out now and you hear them talking about new courses like the "social and behavioural change", where advocacy is a big priority." (P8)*

Another participant made mention of the current literature related to her specific profession and how this has influenced her work:

> *"When I did my Masters, we engaged more of the current literature at that time and that influenced my teaching in OT, so… how I taught my students to work in the community in OT was directly influenced by what I was learning in my MPH." (P7)*

Some participants felt that despite the MPH being an informative degree for a public health practitioner, the one area they did not feel adequately prepared for and may need further attention was related to the Monitoring and Evaluation Module. Some mentioned that they had to attend additional training to make up for this shortcoming in order to feel competent in this area.

> *"I really don't think that M&E component was very strong. Probably I would say it was lacking but it was 15 years ago." (P12)*

One of the participants mentioned that she had to attend additional training for the M&E because it was such an important component of her job as expressed below*:*

"I did do additional training because it is very important. I recognise that I need more information on M&E. So that is very crucial and very important." (P11)

This section has discussed the expectations of the learners and their mostly positive and some negative encounters with the contents of the MPH programme. The graduates in this study made mention of their awareness of the positive changes and continued growth of the course. They also commented on the cutting- edge information from experienced facilitators and guest speakers that could relate to the various challenges that they as participants were experiencing in the workplace. Participants also felt that what they were learning could be implementable in their various places of work.

Often the struggles encountered brought with it growth while for others the methodological diversity could be a source of frustration especially where the engagement impacted on individual's course results. The challenges encountered with the monitoring and evaluation component motivated them to seek for additional learning. This demonstrates that the programme enabled growth for participants even when encountering adversity. This led to another emerging sub-theme on the participants' perspectives on their personal growth and development which will be discussed below.

3.3.3 Personal growth and development

Many of the participants applied for this degree because they felt a need to broaden their knowledge and perception about health, health care aspects and how to respond to various health challenges within the health sector environment despite having completed an undergraduate degree. Most of the participants mentioned their personal growth, many

discussed their academic progress while others articulated how the MPH enhanced their practice in their work. The sub-themes identified here are paradigm shifts in perspective, enhancement of self-confidence and increased leadership skills.

3.3.3.1 Paradigm shifts in perspective

Many of the participants emphasised their growth not only with learning new knowledge but more importantly in application of the skills learnt on the programme. The view below articulates the notion of implementing what was learnt on the programme into their work:

> *"It's empowering in that you are able to merge the academic aspects/ concepts that you learn in the course with the practicalities of your work." (P6)*

Another participant spoke about developing a different way of acquiring new knowledge. They explained that they no longer had an exam focused attitude but became interested in the generation of new habits and ways of engaging in ongoing learning. One respondent noted below:

> *"The self-learning, the self-discipline. So, learning that level of responsibility which is a slight shift from just learning what you think was going to be in the exam." (P9)*

Respondents indicated that the programme broadened their perspective on the subject of diseases. For instance, they noted how they shifted from a narrow view regarding what caused diseases to a new-found awareness that the causative factors of diseases like HIV go beyond just the physical causes. They acknowledged that there is bio, psycho social and spiritual

factors at play in vulnerable populations that encourage ongoing high-risk behaviours as quoted below:

> *"Before I started with this MPH I had this narrow-minded view of causative factors of being HIV positive. There are just so many factors that happens with a person. Like HIV reinfection." (P12)*

Yet another participant emphasised their increased capacity to engage in critical thinking about linking these health systems and realising bringing services closer allowed better access to health care as mentioned below:

> *"If you go closer to where people are or if you bring health closer to where people are, there is a whole lot of outcomes that you can affect in people's lives and for me it was quite an eye opener and the linkage between primary healthcare and the social content of health." (P2)*

Other respondents continued to shed light on their experiences of shifts in perspectives. For instance, one indicated how they were exposed to the value of participatory research in enabling community participation, hence learning from the voices of communities:

> *"This particular course showed you the value of participatory research and action-based research and how important listening to feedback from communities from grassroots. You can't just go from the top-down, you know, there is value in coming up and letting things emerge. It was like a revolution that happened inside of me, really it was… (P3)*

The in-depth learning and insight is reflected by this participant who indicated how the programme enabled them not only to relate to health beyond diagnosis and treatment but also how to engage patients meaningfully:

> *"I was no longer just looking at the illness and what caused the illness but how to intervene." (P4)*

Another participant articulated the realisation that in public health contexts the problems are not distinct and clear cut and addressing these requires understanding the social determinants of health. They added that this often leads one to make more insightful decisions:

> *"I started to appreciate why we cannot just pump money into a curative system but find a way of strengthening the bottom, so that you can prevent people from getting sick." (P10)*

> *"I think it also helps you to gain more maturity in terms of how you adjust things now and making more sensible decisions. Not just seeing the world in black and white but paying a lot more attention to those grey areas." (P10)*

Developing these insights enabled participants not just to engage within the workspaces but the development and insights gained during the programme also brought with it the enhancement of their own self confidence which bring us to the next sub-theme.

3.3.3.2 Enhancement of self-confidence

Engagement with the programme was also affected by time limitations especially during the contact blocks where there were competing demands on time for work, assignments and tests. Participants mentioned that that their personal growth was also affected by learning to juggle many competing priorities. One respondent's views are stated below:

> *"So that was you know managing the studies and work and what I remember those days when you went on the block and then you have the assignment that is due on the day or the test is due, or the assignment is due on the day preceding the start of the new block. It was one of the challenges you learnt to cope." (P10)*

In learning to manage these many priorities, participants mentioned how they became skilled at using all available resources to respond to competing priorities. This brought with it a change of worldview and a self-confidence that was more insightful and knowledgeable. These attributes were soon identified by their peers within their departments of work. Participants felt that because of their own confidence they were called upon to mentor, guide and even facilitate co-supervision of other masters' students:

> *"What I learnt in the MPH you know that maturity we spoke about…. we were then expected to examine, to co-supervise master's students you know to guide students." (P10)*

Participants were very confident about occupying their work roles once they had completed their MPH. This participant voiced her enhanced confidence once she had graduated as articulated below:

"I felt quite competent being a Director once I had completed my MPH." (P12)

Increased confidence levels were also identified within the information technology space especially regarding accessing information. This enabled more efficient engagement and lifelong learning. The quotation below reflects on this:

"I certainly learned new programmes. That was one of the key values of this MPH was learning about new technologies… learning how to use the software, that was incredibly valuable. I would never be able to do research without actually learning how to use the software." (P3)

Another participant mentioned how she felt empowered to source essential information independently:

"I feel my post-graduate degree has prepared me to search for relevant information now, I mean I don't have to sit in a class to listen to a lecturer on a particular topic." (P4)

Furthermore, one participant mentioned that she became employable not just within South Africa but felt confident enough to engage in the international workspace:

"I can go to any country in the world to find a job." (P11)

This self- confidence acquired during and on completion of the MPH programme became visible not only in participants' work environment but also seemed to positively impact on their ability to lead and counsel others as is evidenced in the quotations below:

> *"People ask for advice on how to approach issues that relate to their personal lives, but also their growth plans, how to make decisions about career plans and simple things like helping somebody decide to do a master's in social sciences versus a Master's in Public Health or versus whatever." (P12)*

The confidence levels even extended to improved ability to mentor others in the workplace:

> *"Yes, I am finding I am a better mentor at work." (P6)*

This enhanced confidence is not only reflected in their personal perceptions but also manifested in their confidence of other colleagues who had acquired a MPH. One participant mentioned that when conducting interviews candidates who are MPH graduates seemed to add more value and brought increased creativity to the work place as is evidenced in the quotation below:

> *"Those who have an MPH come in as more creative in terms of the health space, so they are not afraid to ask questions and ask them in a certain way and the people that have grown even within my organisation certainly are those with an MPH." (P12)*

This theme has unearthed the notion of personal growth, shifts in perception and increased confidence in the participants' own capability as public health practitioners which enabled translation of knowledge into implementation. It manifested in their engagement as confident,

knowledgeable practitioners who add value in the multiple spaces within their areas of work. This positive reputation of qualified public health practitioners brought with it the natural progression for further career growth opportunities and post-graduate study. This is further reflected on in the next sub theme.

3.3.4 Career growth and opportunities for work progression

As indicated in the quantitative findings, most of the participants felt that the MPH provided the impetus for further study and as a result, career progression. This theme is discussed further under the following headings: management skills, promotions, career growth and post-graduate study opportunities.

3.3.4.1 Management skills

The realisation of the need for effective and efficient public health managers was certainly a common perspective voiced by most of the participants. The respondents reflected on areas of the module such as finance, staff management and litigation; that related to the skills that enhanced their management capacity. One participant noted as follows:

> *"We were doing all areas of hospital management as a whole. How to maintain your equipment, facilities, staff and finances, also how to deal with litigation…" (P11)*

One respondent highlighted how they improved their understanding of the notion of efficiency and effectiveness which they viewed as key in public health, without compromising on the quality of care as articulated below:

"We have only so much money to spend per patient and the more we can do this effectively without compromising quality, the better." (P15)

One participant made a differentiation between management and leadership and mentioned that the combination of the MPH knowledge and work experience enabled her to become a better leader:

"I think it armed me with the tools to navigate the health system from a leadership point of view. So, asserting myself because I have got the knowledge and also I have the experience." (P9)

The views above provide evidence of the paradigm shifts in the respondents' perceptions not only in relation to causative factors of illness and disease but how to actively and positively engage in these complex health systems to bring about realistic sustainable change. In addition, the management skills gained seemed to have a positive impact on work promotions as is discussed in the following theme below.

3.3.4.2 Promotions

Most of the participants were promoted during and on completion of their MPH. One participant was of the view that promotion was due to just being registered as a MPH student.

"When I registered for this course, this allowed me to advance to a new position at the University." (P10)

Another participant felt that due to her qualification she was entrusted with increased work responsibilities and was also promoted.

"When I actually graduated in 2007, I was promoted from junior lecturer to senior lecturer." (P7)

For other participants, progress in the workplace was an incremental experience due to their MPH:

"I was then promoted due to the MPH as one of the Managing Directors of my organisation. ..... I am now heading a multi-country level grant and assisting other African countries to scale up HIV Services." (P12)

The positive impact of promotions was not the only accolade as many were provided with opportunities to engage with other aspects of academic activities such as research and publications as is discussed below.

3.3.4.3 Contributions to existing knowledge

The MPH enabled people who were initially outside of academia to engage and participate in more academic activities such as publications, thus contributing more evidence to existing knowledge. Some alumni were able to incorporate an academic dimension into their practice and shift towards an academic career. One participant published two articles from her MPH as articulated below:

"I have got two publications that came from my master's and then the rest were from post-graduate students and partly my PhD." (P2)

Some participants valued the increased opportunities for academic practice and mentioned how ongoing research in their specific fields was starting out with successful abstract submissions as quoted below:

> *"I do submit abstracts, I submitted to the Public Health Association of South Africa (PHASA) conference in Durban." (P4)*

Another participant had several publications produced and had conducted conference presentations as part of her work outputs demonstrating a contribution to the knowledge generated in public health:

> *"Since the MPH I have done 4 publications and presented at quite a few conferences." (P12)*

One participant was able to change her career to that of a researcher once she had completed her MPH:

> *"I was able to break away from being seen as a 'communications expert' to being a Researcher… I led a Research project and it was quite a complex Research project, it had many different facets …" (P3)*

Research and publications were deliverables for some of the participants in their current roles however there was also mention made of opportunities for further post-graduate studies. This is important as there is a serious need in the public sector to increase the throughput of Masters degree graduates to enable insightful and effective leadership in the public health system.

This chapter has described the quantitative and qualitative results obtained from the study. These results indicate that a MPH qualification enabled most of the participants' promotions in their places of work. There was also a shift to self-employment as consultants in the public health space. Most of the participants pursued further studies while others also articulated the need for ongoing research and further study, possibly demonstrating that participants were inspired to continue with studies after MPH graduation.

Participants' noted how the MPH programme had a positive impact on their knowledge, skills, insights and ability to implement these gains in their daily work. Many participants felt that their confidence levels were greatly enhanced, and this impacted positively on their ability to fulfil their workplace tasks and also assume leadership positions within their places of work.

These graduates were of the view that they gained greater insight in efficiency and effectiveness in health resource allocation after completing the MPH qualification. One area of concern was reportedly the Monitoring and Evaluation (M&E) component that they viewed to require improvement to meet the needs of the public health practitioner today. The diversity in the background and skills of the participants within the groups also highlighted the disadvantages experienced by some especially where there were technological challenges. This manifested in some instances where some of the students were unable to engage effectively. It also manifested when various teaching methodologies were used such as group work where some participants were not able to engage as expected. Despite this imperfect environment, the study clearly shows the positive perceptions of the impact that the MPH has had on the graduates' ability to become effective health care practitioners in the public health system.

Chapter 4: Discussion

This study aimed to explore the extent to which acquiring the Wits MPH had an influence on the alumni's work ability, career growth and further study.

Graduates of the Wits MPH generally reflected positively on their experiences in the MPH programme. The key findings highlighted how the alumni had varied motivations for pursuing the programme; such as feeling the need to know more about the health system, the NGO environment and how to learn to engage differently in managing and leading in complex health systems.

Many participants mentioned the paradigm shifts in perception related to health and causative factors of diseases. The majority were of the view that the programme was accommodative of diversity and would enable career growth and opportunities for work progression. In this chapter, I will delve further on these findings in light of the wider literature on similar and/or contradicting experiences in other settings. I will thereafter draw conclusions regarding the implications of the findings. In addition, I identify key areas that require further research considering the findings in my study.

4.1 Motivation to pursue the MPH

Participants in this study identified the need for further training and development in the areas of public health. In the completion of their MPH degree the alumni have moved through a similar transformative learning process as described by Mezirow (27, 28) in his notion of transformative learning theory. This theory has undergone some refinement from a ten phased process to a more comprehensive version articulated now as a three-phased journey (31). The first of these phases is described as a disorienting dilemma (28), which is also echoed by Halpern where the individual "knows that they don't know" (55). For instance, some

participants indicated that they felt the need to explore the MPH so as to improve their ability to work meaningfully in the community and the NGO environment.

The complex interaction of the completion of a higher degree with the realities of the workplace results in the persistent feeling of a need for more information. Several studies have shown that graduates feel inadequately prepared to lead in public health positions and as a result, were drawn to further post-graduate study (56-58).

The second phase of transformational learning is related to the context including personal, professional and social factors. Participants who enter the MPH degree have been moulded by the undergraduate institutions of their basic degrees and also have their own personal concepts, values, feelings and frames of reference which define their world (31). A frame of reference is made up of habits of mind and a point of view based on personal experiences, beliefs and values - these are not easily changed (59). This was echoed in the findings in this study where participants felt the need for increased knowledge related to health care aspects and learning new ways of responding to various health challenges within the health sector environment despite having completed an undergraduate degree (59). The realisation of the participants' need for further development enables them to be receptive to engaging with a frame of reference that is more inclusive, discriminating, self-reflective and integrative of new experiences (59).

This speaks to the third phase of the Transformative learning theory called critical reflection. Critical reflection implies the transformation of meaning making, the structure of knowledge, the context in which knowledge is applied and the process of application and premise under which knowledge is engaged with, in order to change society (31, 59). This notion of transformative thinking is an important attribute of the MPH programme and in the context of

this study; learners were seeking new knowledge and skill and, therefore, were attracted by the reputation of the MPH programme as discussed below.

4.2 The reputation of the MPH course

The need for public health graduates especially in LMICs is well established (41, 60). The positive reputation of the Wits MPH programme provided the impetus for some participants to embark on this programme. The perceived status of this qualification is enhanced by Wits University being ranked within the top 300 globally by Academic Ranking of World Universities (61). U.S. News & World Report ranks Wits University as the second best university in Africa (62). The Wits Public Health programme has been well evaluated both internally and externally and the institution is known for producing graduates who continued to doctoral and postdoctoral training (24).

In addition, some schools of thought believe that a member of the healthcare profession not only demands knowledge and skills but also includes the individual growing as a member of the professional community (31). These participants were drawn, albeit initially based on the institution's reputation, to become a part of a reputable community of practice (63). The reputation of the Wits degree is enriched by being creative and innovative in that participants return to the workplace and engage with more insight and deeper reflective capacity. This links to their engagement of learning new ways of thinking and being.

4.3 Learning new perspectives

Many participants described how the programme challenged them to think about old problems in new ways and engage with problem solving from a multidisciplinary perspective. This transformation process enabled the development of new schemas in working with others and how to think about problems (59). Learning new methods of assessment, how to plan

interventions including budget allocations and even engaging with monitoring and evaluation to measure return on investment is par for the course. These new ways of thinking ranged across understanding the causes of diseases and understanding the structural drivers of ill health (64). However, the real measure of whether these outcomes have been achieved would be reflected in achieving the target outcomes of identified health indicators in the population (38). The ability of a graduate in a complex health system to engage with epidemiology, research interventions and the measurement of outcomes, is crucial in resource scarce LMIC settings (25, 65). The added expectation is that public health graduate programmes need to be country specific and responsive to their own populations and the needs of their individual health systems in order to be effective (38). Many of the participants from Africa come from a range of varied health environments where the challenges and priorities may differ depending on available human, financial and other resources. The ability to adapt and apply the knowledge and skill required in these different settings is crucial.

In a systematic review conducted on the relevance, outcome and impact of Masters degrees in health and health care, the findings showed that most graduates were able to apply what they learnt and there was a positive impact on their careers (66). Of the 33 articles reviewed in this systematic review, however, only one was from SSHA. This shows that there is insufficient research in LMICs in assessing the outcomes and impact of health-related Master's degree programmes therefore it is difficult to make specific assumptions about impact. It is clear that more research is required on whether graduates are being adequately prepared to assume their roles as public health leaders in LMICs.

4.4 Professional and demographic diversity

The Wits MPH is oversubscribed with global applicants especially from Africa. The graduates in this study came from across many African countries with a range of diversity across

demographic, professional and cultural perspectives. This diversity enriched the class discussions and group work, adding various dimensions to understanding which may not have been considered otherwise. For many, the diversity of both multiple professions and demographic origins of fellow participants was a new experience and is positively captured in the phrase *"our class was the whole world" (P6).*

Kumagai and Lypson (67) recognise the importance of the "lived experiences that students bring into the small group as a resource for collective learning" and ongoing engagement throughout the programme enables the development of critical thinking as identified by Mezirow in the notion of transformative learning theory (28). This sharing of the lived experience is identified by many as essential to the theoretical framework that informs the curriculum (31). The benefit of learning with others whom they may not have chosen as learning companions' forces ongoing engagement with innovative, creative and varied methods of problem solving.

Consideration of the diversity of participants also encompasses juggling full time employment, family with other social responsibilities. Those participants travelling in for the week-long contact sessions, coupled with distance learning and the challenges that comes with accessing information technology, impacts negatively on their ability to engage fully with the programme.

Given the health inequities in many African countries and the oversubscription of the MPH programmes, there is an urgency to develop more public health training institutions to make training of public health leaders more accessible (25). This requires the political will with support from government, universities and all other stakeholders that are able to make a contribution to sustainable funding. Initial ongoing support could potentially create increased public health training centres of excellence in SSHA that are linked to various national and international training institutions (68). This would increase learner access, support participant

throughput and create opportunities for research and collaboration between training institutions.

These institutions should be world-class with standardised programmes with core competencies that are relevant and suited to the specific needs in each region. This would enable the development of public health leaders who are able to prioritise and implement interventions that fit the context for each region (12). Public health training institutions across SSHA could become transformative learning spaces that produce leaders who are able to make a difference in the areas in which they lead.

4.5 Transformative learning spaces and processes

The complexity of the diverse learning environment was played out in the extent of the content being learnt ("*my learning was exponential"* – P3), the teaching methodologies from didactic lectures to intense group interaction ("*the group work challenged me to look at old problems in new ways"* – P7) and the diversity of the teachers contributing to the course. The WSPH has a reputation for drawing their facilitators from a variety of public health disciplines and incorporating a variety of creative teaching and learning methodologies (69). The notion of bi-directional teaching and learning enables a more interactive student-teacher engagement aimed at problem solving as opposed to the primary focus being knowledge transfer (67). Frenk, Chen (16) advocate a systems-based approach to learning in order to improve the performance of health systems by adapting core professional competencies to specific contexts, while drawing on global knowledge. This notion of transformative thinking enables a shift from the traditional primary education and behaviour change interventions to a more upstream approach (64). Impacting more on legislation, governance and stewardship enables more long term and sustainable interventions (21). So understanding the theory behind capacity building in public

health is essential, however, it is in the ability of graduates to apply these models and frameworks to the contextual reality of the social health needs they are managing, which is a crucial outcome (59). It is therefore imperative that the curriculum continues to be responsive to the changing health landscape.

4.6 Responsiveness of the Curriculum

Many participants spoke about the curriculum content and how they felt that the exposure to current literature and access to various forms of information technology advanced their ability to access the ever-growing body of knowledge globally. Collaboration between south-south and north-south partnerships and the investment of government and the universities have enabled the Wits MPH programme to remain sustainable, current and relevant (68). The countries represented by the participants may require different frameworks of curricula which should be informed by the drivers of ill health in their regions (36). There is a need to establish similar training institutions, with curriculums designed according to the public health context and disease profiles to address the increasing inequities in health within these specific regions (12).

Some areas of specific need identified by participants in this study are related to the Monitoring and Evaluation component of the programme. Some felt that despite being qualified, they still felt inadequately prepared to engage effectively with M&E and opted for further training. Ongoing evaluation and review of the learning tracts in the MPH has been consistent and changed in accordance with the changing health landscape (44). It is important to note that despite these interventions, time limitations, a packed programme and logistical challenges (geographical, information technology access, etc. especially in LMICs) impact on the ability to add additional course content. It may also be necessary to better support M&E learning and application of knowledge by developing local communities of practice of qualified, skilled and

suitably employed mentors. This could potentially provide newly qualified alumni with the supervision, research support, career pathing and even contribute to quality assurance practice to enable growing communities of practice (16, 19). This would require commitment with adequate allocation of resources from government, universities and donors.

There is also a need for graduates to keep abreast of various emerging tools that augment diagnostics, M&E and evaluating outcomes especially in the current climate of emerging digital technology (70). More responsive curriculums to regional and country specific health needs and opportunities create opportunities for knowledge sharing, research and the development of interdependent communities of practice (16). The best accolade however is the contribution to the development of transformed public health leaders.

4.7 Transformed Leaders

There is almost universal expression of the personal growth and development experienced by the participants in this study by the time they emerged as graduates. Their perspectives were broadened through the course allowing them to experience paradigm shifts and a deepening level of critical thinking. The process of learning through engagement with contextual problems enhanced their capacity to manage in the workplace and use information appropriately to occupy leadership positions (66).

Self-perception of leadership skills may not be sufficient to evaluate capability however and perhaps this needs to be augmented by a formal process of evaluation. A Health Leadership Competency Model (HLCM) was developed in America to evaluate leadership skills across health professions (37). This HLCM model assesses various behavioural and technical competencies that can be used to assess leadership ability and identify training needs at various levels whether it be at lower intermediate and senior management level (38).

In LMICs there are no such standardised tools available as yet, however, this is a necessity given the complex landscape that public health leaders are required to navigate in their management positions (40). The urgent call for the development of a critical mass of well-trained and highly skilled health leaders lends itself to the urgency of benchmarking and standardisation to ensure the calibre of graduates to become leaders in public health in LMICs (60).

4.8 Work place progression

All the participants felt that the course allowed them to progress in their places of work often achieving the level of management. This was accompanied by a greater self-confidence and the ability to lead effectively. Their growing self-confidence has allowed some of the participants to become a part of the community of practice in public health through research and participation in conferences and academic forums. The greater assertiveness expressed by the participants is an important part of the development of graduates through this degree. Perhaps, more fundamentally, it is this ability to reflect more deeply with a greater sense of confidence in oneself, that allows the graduate to lead with confidence.

There are several studies that echo the notion that health managers who have completed a MPH think more progressively and engage more proactively (57). In one study, using self-administered questionnaires, results showed that MPH graduates attributed their improvement in their careers and remuneration to the acquiring of their MPH degree (11). This study also showed that participants tended to have increased leadership skills, work responsibilities and more impact in the workplace and higher reporting of health indicators. The results showed, however, less substantial impact on society, such as contributing to equitable access to quality community services (23). This could be due to inequity inherent in public health services or it

could be dependent on a much broader platform where there are many social determinants of health and where scarce resources may limit access.

This discussion chapter has identified the key findings and compared this to the current literature. Commonalities found were related to the identified need for learning how to manage and lead in resource scarce environments and how to use their knowledge and skills in order to make informed and responsive decisions based on available data and current literature. The area of monitoring and evaluation has been identified as a need to be strengthened however there is a need for the development of supportive communities of practice especially in LMICs. This would mean increased development of localised public health learning centres of excellence that are also research intensive and interconnected both locally, nationally and internationally. This would require political will and collaboration of all relevant stakeholders.

4.9 Study Limitations

The poor quality of the alumni records from both the alumni office and School of Public Health had a negative impact on the sourcing of participants. The impact was a delay in being able to source participants and prompted the ethics application to extend the period.

Loss of contact information due to a change of participants' employment, relocation or marriage impacted negatively on being able to trace the alumni for this study. The low response rate in the survey of 19 participants provided a limited picture of the profile of alumni. The poor response rate may have led to sampling bias and could have affected the results by providing a different average for places of work, period of transition and job description. The participants were predominantly working in South Africa and this may also have compromised the richness of the data in that it could have provided a South African specific perspective. The qualitative data however helped to mitigate this limitation and yielded some valuable information.

Another consideration is that some alumni completed their studies several years before the study and this may have affected their recollection. In addition, there is a possibility of social desirability bias where the participants provided responses that they deemed socially acceptable.

Chapter 5: Conclusions and Recommendations

This research has found that the perceptions of the Wits MPH Alumni are mostly positive. Most evident was the acquiring of a variety of knowledge and skills to engage effectively as public health managers in a complex health system environment or context. The Wits MPH enables transformative learning experiences that enable the alumni to engage confidently as public health leaders. The accommodation of multiple layers of diversity enabled transfer of learning in innovative and creative ways. The findings have also shown that it is an advantage to have an MPH from Wits due to the good reputation of the degree, as well as promotion and career opportunities across various areas in the health sector.

Participants articulated their increase in confidence in leading and managing once qualified and their ability to engage with further study, research interventions and provide mentorship and supervision for other colleagues. One area that required strengthening was the module on M&E considering that some participants had to seek for additional training to feel competent. Consideration needs to be given to the development and ongoing support of sustainable public health training institutions to enable the provision of supervision, mentorship and support of newly qualified alumni in LMICs.

Recommendations

- There is potential value in establishing and/or linking networks for newly established alumni. Networks to enable knowledge sharing and ongoing collaborative efforts are needed. This has the potential to enable more efficient and effective strategies to address the myriad of health-related issues especially in LMICs. Networks provide the opportunity to provide mentorship, support, and capacity development of managers in public health environments especially those who are new to the field of public health leadership.

- Create opportunities where potential leadership within the health sector can be identified and grown. It has been shown that better support for leadership development could include talent-spotting and nurturing, induction and peer mentoring for newly appointed facility managers, ongoing peer-support once employed in a post and enables continuous reflective practice (71). This is true especially for leaders in LMICs where the need for capacity development is crucial to addressing the inequities currently being experienced.

- The ability to assess, plan implement and evaluate interventions relies heavily on the ability to access and use information for each of these steps. This monitoring and evaluation component is a crucial deliverable for the MPH and the curriculum needs to stay current and relevant to the need especially in resource-limited settings where decisions on priority areas need to adapt to the priority needs identified. Keeping abreast of the latest technologies especially in relation to digital technology is also key to accessing better and more efficient ways of intervention globally (64).

- There is an urgent need for more resource allocation from government, universities and other relevant stakeholders to support the development of more centres of excellence that provides access to public health training and supports ongoing relevant research.

The standardisation and quality assurance of all MPH programmes in LMIC should have as part of its practice the ongoing evaluation of outputs and outcomes related to the priority areas established. This will enable responsive curricula but more importantly facilitate the building of a critical mass of highly skilled, knowledgeable and capable public health leaders.

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Appendices

APPENDIX I: Participant Information sheet

Study title: The perceptions of the Wits MPH alumni on the role of the Wits School of Public Health MPH qualification on their work and careers

Introduction:

We at the School of Public Health in the University of the Witwatersrand are doing research on **t**he perceptions of the Wits MPH alumni on the role of the Wits School of Public Health MPH qualification on their work and careers. Reviewing the impact of the programme is important to identify whether the alumni have been guided in using evidence to inform decisions and plan interventions in the public health sector that have a positive impact on the populations whom they serve.

Invitation to participate: As a Wits MPH alumnus who may have an insightful view of the course, we are inviting you to take part in this research study.

What is involved in the study: All participants will be requested to complete or do the following:

1. Complete a short demographic questionnaire
2. Participate in an in-depth interview either face to face, telephonically or on SKYPE
3. The expected time of the interview is approximately 1-hour long
4. The interview will be audio recorded to enable transcription and translation

Risks:

There are no risks involved in this study. Care will be taken to keep all recorded and written material under lock and key.

Benefits:

The results of the study will inform the course coordinators of the strengths and limitations of the MPH programme and where enhancements of the programme could be changed to increase the value that participants may experience in order to be effective efficient public health care practitioners.

Participation in this study is voluntary.

You have the right to refuse to participate at any time without any consequences.

The participant will be given pertinent information on the study while involved in the project and after the results are available.

Participation is voluntary, refusal to participate will not involve any penalty and the subject may discontinue participation at any time.

Reimbursements. There will be no reimbursement for "out of pocket" expenses

Confidentiality:

Efforts will be made to keep personal information confidential. Absolute confidentiality cannot be guaranteed. Personal information may be disclosed if required by law.

Organizations that may inspect and/or copy your research records for quality assurance and data analysis include groups such as the Research Ethics Committee and the Medicines Control Council (where appropriate).

If results are published, this may lead to individual / cohort identification.

Contact details of researcher/s – for further information:

For further information or have any questions/complaints on the study please contact Nonhlanhla Nxumalo at Wits School of Public Health on +27 11 7173432 or Nonhlanhla.Nxumalo@Wits.ac.za.

Anisa Keshav at Wits on +27 11 274 1234 for questions regarding study ethics of the University of the Witwatersrand Human Ethics Committee.

Contact details of HREC administrator and chair – for reporting of complaints / problems: Ms Zanele Ndlovu Administrative Officer: Human Research Ethics Committee (Medical) Tel: 011 717-1252 e-mail: zanele.ndlovu@wits.ac.za

APPENDIX II: Protocol Amendment Form

Human Research Ethics Committee (Medical)

Research Office Secretariat: Senate House Room SH 10005, 10th floor. Tel +27 (0)11-717-1252
Medical School Secretariat: Phillip Tobias Building. 2nd Floor Tel +27 (0)11-717-2700
Private Bag 3, Wits 2050, www.wits.ac.za. Fax +27 (0)11-717-1265

19 June 2015

Ms Barbara Green-Thompson
PO Box 88590
Newclare
2112

Sent by email to: bgreen-thompson@wrhi.ac.za

Dear Ms Barbara Green-Thompson

Re: **Protocol Ref no: M140445**
Protocol Title: The Perceptions of the Wits MPI Alumni on the Role of the Wits School of Public Health MPH Qualification on their Work and Careers.
Principal Investigator: Ms Barbara Green-Thompson

Protocol Amendment

This letter serves to confirm that the Chairperson of the Human Research Ethics Committee (Medical) has approved your request to change the period of data collection from 2005 -2013 to 2005 – 2014 on the above mentioned protocol, as detailed in your letter received on 26 March 2015.

Thank you for keeping us informed and updated,

Yours Sincerely,

.....

Mr Langutani Masingi
Administrative Officer
Human Research Ethics Committee (Medical)

UNIVERSITY OF THE WITWATERSRAND OFFICE OF THE DEPUTY VICE CHANCELLOR RESEARCH 19 JUN 2015 RESEARCH OFFICE JOHANNESBURG

APPENDIX III: Consent Form for Interview

I _____ hereby agree to participate in this Public Health research study.

The purpose and nature of the study has been explained to me in writing.

I am participating voluntarily.

I give consent for my interview with Barbara Green-Thompson to be audio recorded.

I understand that I can withdraw from the study, without any consequences, at any time, whether my withdrawal is before the study starts or while I am participating.

I understand that I can withdraw my consent to use the information within two weeks of the interview, in which case all the material will be deleted.

I understand that no-one will have access to my personal information as my identity will be protected.

I understand that quotations from my interview may be used in the thesis and any subsequent publications without divulging my personal information if I give permission below:

(Please tick **ALL** boxes :)

I agree to be interviewed Yes ☐ No ☐

I agree to quotation/publication of extracts from my interview Yes ☐ No ☐

I do not agree to quotation/publication of extracts from my interview Yes ☐ No ☐

In order to verify your identity during a telephonic interview, please answer any **one** of the following questions:

1. What was/is your mother's maiden surname?

   _____

   OR

2. What is the name of your favourite author?

   _____

OR

3. What is your favourite food?

_____

Signed_____ **Date_____**

APPENDIX IV: Client Consent for Audio-recording during in depth interviews

- The reason for audio-recording the in-depth interview sessions has been explained to me.
- I am aware that I may choose whether or not to allow audio recording.
- I am aware that I may ask for the recording of the counselling session to be stopped at any time.
- The measures that will be taken to make sure that the recording is kept confidential have been explained to me.

I consent to having my in-depth interview sessions audio-recorded.

Participant (Client)

Name _____

Signature _____

Date _____

Researcher (Observer)

Name: Barbara Green-Thompson

Signature _____

Date _____

APPENDIX V: Quantitative Data

1	What year did you complete your MPH?	[2][0][_][_]	
2	What year did you first register for your MPH	[2][0][_][_]	
3	Did you study full-time or part-time?	Full=time	1
		Part-time	2
4	What is your age group?	26-30 years	1
		31-35 years	2
		36-40 years	3
		41-45 years	4
		46-50 years	5
		51 years and above	6
		Refuse to answer	99
5	What is your sex?	Male	1
		Female	2
6	What field of study did you graduate with in your MPH?	MPH in Management & Health Systems	1
		MPH in Health Systems and Policy	2
		MPH in Maternal and Child Health	3
		MPH in Occupational Hygiene	4
		MPH in SBCC	5

		MPH in Rural Health	6
		Other (specify)	
		Refused	99
7	What was your disciplinary training prior to embarking on a MPH?	Medicine	1
		Nursing	2
		Pharmacist	3
		Occupational, physio or speech therapy	4
		Laboratory Science	5
		Occupational hygiene	6
		Sociology	7
		Psychology	8
		Demography and population studies	9
		Humanities	10
		Commerce, law	11
		Other (specify)	
8	Where are you currently employed?	National government	1
		Provincial government	2
		Local government	3
		NGO	4
		University/academic institution	5
		Private sector	6

		Other (specify)	
		Refused	99
9	Have you embarked on further studies since you graduated with a MPH?	Yes	1
		No	2
10	If yes, what degree?	PhD	1
		Masters	2
		Other (specify)	
11	What was your job description during the time you engaged in the programme?		
12	Do you still work for the same organization that you worked for while doing your MPH?	Yes	1
		No	2
13	If no, what type of organization did you work for while you were studying??	National government	1
		Provincial government	2
		Local government	3
		NGO	4
		University/academic institution	5
		Refused	99
14	How long have you worked for your current organization?	[ ] [ ] years [ ] [ ] months	
15	Have you been promoted since you completed your MPH studies?	Yes	1
		No	2
16	If yes, what is your current position?		

17	Please rate how useful your MPH studies have been in your work overall.	Not at all useful	1
		Somewhat useful	2
		Neither useful nor useless	3
		Useful	4
		Extremely useful	5
18	Which course content have you gone back to and reviewed outside of your studies?		
19	Which course(s) that you took as part of your MPH stands out in your mind?		
20	How would you rate the usefulness of your research project as part of the MPH?	Not at all useful	1
		Somewhat useful	2
		Neither useful nor useless	3
		Useful	4
		Extremely useful	5
21	Is there a content area that you wish had been covered by the MPH – please suggest		
22	Would you be willing to be contacted by a researcher for an in-depth interview about your MPH experiences?	Yes	1
		No	2
23	If yes, please provide contact details:		

	Name: _____ _____ Email address: _____ Phone number at work: _____ Cell number:

APPENDIX VI: In-depth Interview Guide

A. Tell me about your experiences in the MPH programme?

Probe:

- Please tell me your views about the content of the modules that you completed, in terms of relevance, length of the modules, the course material provided, the teaching methods that were applied

B. What was your most memorable experience of the programme? What made it that?

C. Since your job when you were studying for the MPH, what has been your experience in terms of promotions, change in organizations and the roles you have embarked on?

Probe:

- To what extent has the MPH influenced your decision to change roles, jobs or organizations, if at all?

D. How applicable was this programme in your workspace then and now?

Probe:

- Can you please provide some examples where you have used some of the knowledge from the MPH in your work?
- To what extent did you think this knowledge was useful? Please elaborate
- To what extent have you used your research skills (such as using data) as learned in the MPH in your work? Please give an example if you have.

E. Is there a content area that you wish had been covered by the MPH that you feel could have been useful in your work? – please explain

F. How has the MPH affected your career, if at all?

Probe: Please provide an example of where in your career you think the MPH has played a role, whether in change of positions or promotion, if any?

G. Do you have any recommendations regarding the MPH programme?

APPENDIX VII: Ethics Clearance Certificate

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)

CLEARANCE CERTIFICATE NO. M140445

NAME: (Principal Investigator)	Ms Barbara Green-Thompson and Dr Aziza Mwisongo
DEPARTMENT:	School of Public Health University of the Witwatersrand
PROJECT TITLE:	The Perceptions of the Wits MPI Alumni on the Role of the Wits School of Public Health MPH Qualification on their Work and Careers
DATE CONSIDERED:	25/04/2014
DECISION:	Approved unconditionally
CONDITIONS:	
SUPERVISOR:	
APPROVED BY:	Professor PE Cleaton-Jones, Chairperson, HREC (Medical)

DATE OF APPROVAL: 28/05/2014

This clearance certificate is valid for 5 years from date of approval. Extension may be applied for.

DECLARATION OF INVESTIGATORS

To be completed in duplicate and **ONE COPY** returned to the Secretary in Room 10004, 10th floor, Senate House, University.

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 resubmit the application to the Committee. **I agree to submit a yearly progress report**.

Principal Investigator Signature M140445Date

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES