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A Decomposition Analysis of Gender Disparities in Need and Unmet Need for Care and Support in Urban Gauteng

A Research Report presented for the degree Masters in Applied Development Economics in the School of Economics and Finance, University of Witwatersrand

By

Siphesihle Lusanda Mhlahlo

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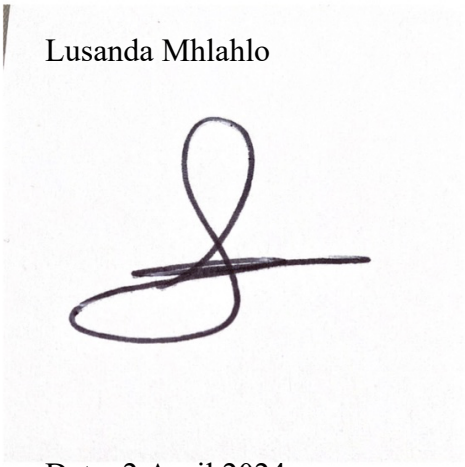
Supervised By Professor Frederik Booysen

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Declaration

I declare that this dissertation is my own work. It is being submitted for the degree of Master of Commerce in Applied Development Economics at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any other degree or examination at any other university.

Lusanda Mhlahlo



Date: 2 April 2024

Abstract

Gender inequalities are a pervasive issue with far-reaching effects across all aspects of society, including the economy. This study delves into gender health disparities, specifically focusing on need and unmet need for care and support. Using data from the Gauteng Quality of Life Survey of 2020/2021, the study employs logistic regressions and a decomposition model to analyse the prevalence of need and unmet need, and how these differ across sex. The findings of this study highlight a higher prevalence of need among women, with employment emerging as the most significant factor contributing to the gender gap in need. Equalizing employment levels between men and women could potentially reduce the gender difference in need by 15%. Additionally, the study identifies a self-reported history of intimate partner violence (IPV) as a key contributor to gender disparities in need, suggesting that reducing the prevalence of IPV among women to match that of men would help narrow the gender gap. Furthermore, the study reveals a greater prevalence of unmet need among men, once again linking a self-reported history of IPV to this disparity. These findings shed light on the complex interplay of gender, health, and societal factors, emphasizing the importance of addressing gender inequalities in healthcare and support systems.

1. Introduction

Gender is a key social determinants of health and influences various aspects of health. Despite South Africa proclaiming to be a progressive democratic state, gender inequalities persist (Marx et al., 2018). Gender is a socially constructed concept that encompasses the characteristics assigned to women, men, girls, and boys. It includes the norms, behaviours, and roles typically associated with each gender. As a construct, gender differs across societies and can evolve over time. Notably, gender is hierarchical, leading to inequalities that intersect with other forms of social and economic disparities, which in turn influence gender relations (WHO, 2021)

Gender relations can be understood as behaviours, practices and social norms that regulate the multifaceted relationship between men and women within a given society. The major concern in gender relations is the power asymmetries that exist between men and women, which have material implications (Alcalde-Rubio et al., 2020). Concerning health, power dynamics due to gender contribute to susceptibilities to illness, how a person experiences illness, health

behaviour, healthcare utilisation and overall health outcomes (WHO, 2021). In this paper gender is used interchangeably with sex. The combination of these terms is for simplicity.

In most societies, women and girls are disproportionately disadvantaged by gender inequalities often having a lower social status compared to their male counterparts. Consequently, women have less agency over their decision-making and their bodies making them vulnerable to violence and coercion (WHO, 2021). Further, gender disparities negatively affect the ability of women and girls to access critical health information, or make use of healthcare services, which increases their exposure to illness. Despite the emphasis on women, harmful gender norms also negatively affect the health of men and boys, particularly rigid notions of masculinity colloquially known as 'toxic masculinity'. These social guidelines of 'manliness' often encourage boys and young men to engage in risky health behaviours such as smoking, alcohol misuse and sexual promiscuity. Furthermore, harmful masculinity increases interpersonal violence with men being perpetrators of violence against women and it also contributes to violence against men in the form of homicide and gang violence, which is a leading cause of morbidity and mortality among young men (PAHO, 2019).

Health matters, because the driving force of any thriving economy is a healthy population (WHO, 2002). Research has shown that improvements in a population's health in the form of increased life expectancy and reduced mortality are associated with economic gains in the form of health capital. Good health has a statistically significant positive impact on aggregate output (Gavurova et al 2021), highlighting the relevance of health when considering economic dimensions. Health inequalities are equally important when analysing the economic prosperity of countries, because where gender health gaps persist, they often trigger socio-economic disparities which impede economic development. These disparities may present in the form of low human capital development, low labour force participation and low productivity resulting in low incomes (Ntuli, 2016). Further, these poor outcomes hinder contributions to sustainable economic development.

In South Africa, as in global trends, various studies have examined health disparities. However, most of these studies have focused on access to care along racial lines and the intersection between health disparities and socioeconomic status. This paper diverges from this narrative by exploring health inequalities through a gendered lens. Specifically, the primary focus is on assessing need and unmet need, and how these health components differ between men and women. The paper also examines key predictors of these gender differences, with a particular

emphasis on intimate partner violence (IPV), given that South Africa reportedly has the highest rate of intimate partner homicides globally (Gordon, 2016). A country cannot effectively bolster economic development and improve the standard of living without a comprehensive understanding of its population's health. This study's exploration of need and unmet need for care and support contributes essential knowledge toward this understanding. Furthermore, in light of the 2030 Sustainable Development Goals (SDGs), particularly SDG 3—health and well-being for all—and SDG 5—gender equality, this study contributes literature necessary for policymakers to address barriers to these developmental goals

The paper is divided into the following sections, section 2 is The Literature Review. Section 3 is The Aims and Objectives of the study. This is followed by section 4 The Data, then The Methodology which is section 5. Section 6 is the Results, which is followed by section 7 The Discussion. Section 8 is The Limitations. The last two sections of the paper are section 9 The Conclusion and section 10 The References.

2. Literature review

2.1 Care in Crisis: The Need for Care and Support

Understanding the need for healthcare is critical because it is unlikely that meaningful improvements in health services will be made without efforts to develop need-orientated services. The South African healthcare consists of a two-tiered system. The public sector, which is characterised as low quality health care that is available to all citizens. It does not require individuals to have formal health insurance plans as it is state funded care. Public healthcare caters for the majority of citizens with it providing care for approximately 71% of the population. While the private sector services approximately 27% of the population, and is funded through out of pocket payments contributions and medical aid contributions (Rensburg, 2021). The current inequalities that exist within the healthcare system are the result of numerous epidemics and historical policies from colonial subjugation, Apartheid, and the post-Apartheid period (Mayosi et al., 2015). These epidemics and historical policies have also influenced how need for care and support manifests within society.

"In healthcare, the 'realistic' approach is often adopted when conceptualizing need. This approach argues that a need should only be recognized if reasonable measures exist to meet that need (Acheson, 1978). Therefore, the need for healthcare is considered to exist only when

there are available and effective healthcare services (Rodriguez-Santana et al., 2023). This conceptualization results in healthcare providers being responsible for determining healthcare needs, categorizing need as 'normative' since it is defined by professional standards (Bradshaw, 1972).

The economic approach to need has a similar iteration to the realistic approach, defining need as "the ability of people to benefit from healthcare provisions" (Asadi-Lari et al., 2003; Stevens & Gillam, 1998). This perspective combines satisfactory service provision with cost-effectiveness, focusing on the capacity to benefit from healthcare services. However, these approaches are problematic due to their narrow scope. For instance, they may favour younger individuals who have a greater capacity to benefit from health services, raising equity concerns. Moreover, defining need in this way limits healthcare needs to existing services, ignoring those without identifiable means to address them (Asadi-Lari et al., 2003). Examples include mental health in adolescents, postpartum mental health needs in fathers, and healthcare needs arising from social isolation.

Historically, the failure to address needs lacking identifiable solutions has had negative consequences. For example, postpartum depression, despite its high prevalence (affecting one in seven women) and historical recognition dating back to ancient times, was only officially recognised by the psychiatric community in 1994 with the fourth edition of the Diagnostic and Statistical Manual (Battle and Zlotnick, 2005). This delayed response in treating postpartum depression has significantly contributed to increased mortality rates among new mothers and infants."

A broader domain to understanding need is the ‘humanitarian’ approach, which is the approach adopted in this study. The ‘humanitarian’ argues that need arises when the health and/or the well-being of an individual has been disturbed. Therefore, this method of assessment focuses on the identification of need, where resource allocation only follows after the identification (Acheson, 1978). This approach parallels Bradshaw’s (1972) taxonomy of need, aligning with ‘felt’ need and ‘expressed’ need. Viewing need from the ‘humanitarian’ approach is a worthwhile exercise because it views need from the perspective of potential users of healthcare. In this study need is constructed using four sub-components namely, poor health, depressed, unable to work and the inability to socialise along with an overall need variable. This is in acknowledgement that a disturbance in a person’s well-being resulting in a need for care can manifest itself in various ways. An analysis of the sub-components of need are discussed in the methodology of the paper.

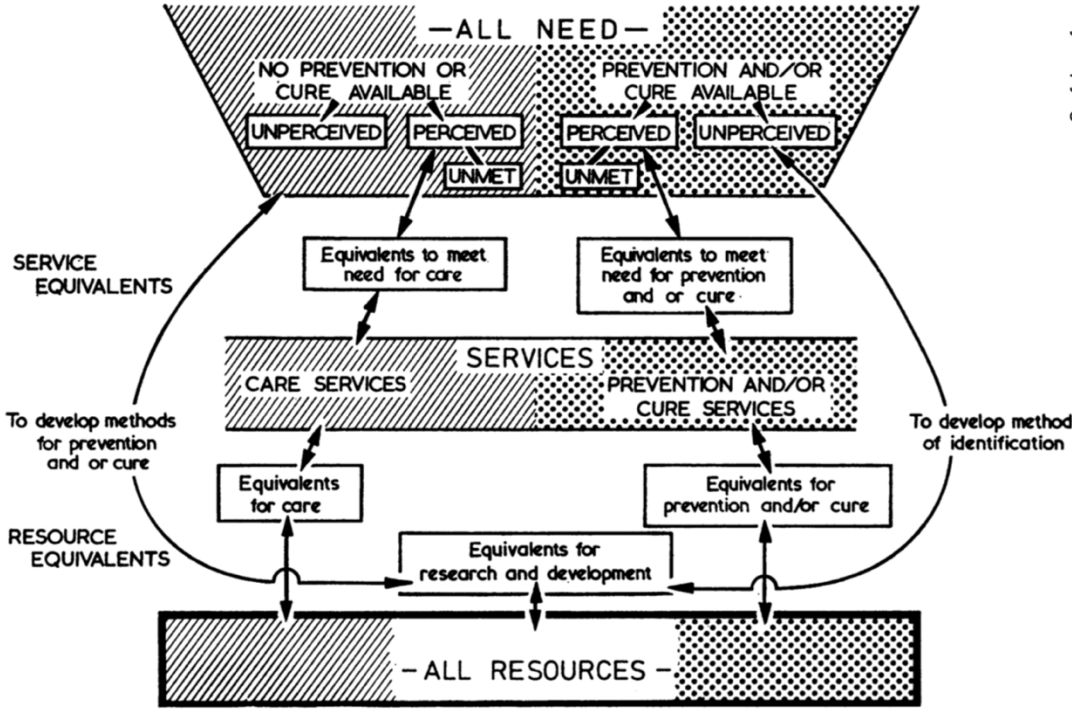


Figure 1: "The figure above is a visual representation of the argument put forth by the Humanitarian Approach"
**The figure is adopted from Acheson, 1978.*

2.2 Access Denied: Unmet Need in Care and Support

The concept of unmet need in healthcare is commonly defined as a shortfall experienced by individuals in the healthcare services they receive (Allin et al., 2010). This issue is closely intertwined with the notion of access, which is defined as the opportunity to attain healthcare services when there is a perceived need (Levesque et al., 2013). Unmet need essentially represents unrealized access. When considering access from a broader perspective, it encompasses various factors such as the ability to recognize one's healthcare needs, perception and desire for care as well as a person's health-seeking behaviours (Levesque et al., 2013). The associated dimensions of access, that speak to supply and demand determinants, are also relevant. Approachability refers to the ability of people facings health needs to identify relevant services to address the need. This directly speaks to unmet need in that people's ability to perceive their need for care directly influences whether they will seek care or not. Another relevant dimension is acceptability, which refers to social and cultural factors that affect whether a person will accept care or deem the care to be appropriate and therefore seek it out (Levesque et al., 2013). Failure to satisfy any of these aspects of access results in unmet need.

The reasons behind unmet healthcare needs are often linked to unfavourable aspects of healthcare systems, including lengthy waiting times and the unavailability of essential services. The prevalence of exacerbating factors means that unmet need has been steadily rising (Sanmartin et al., 2002). Further, the increase is apparent for both men and women. In acknowledgement of the extensive nature of unmet need. The paper divides unmet need into four sub-components: unmet poor health, unmet depression, unmet inability to socialize, and unmet work. These will be discussed further in the methodology section. This study examines the prevalence of unmet need within the context of urban Gauteng, incorporating an analysis of the outcomes through a gendered lens.

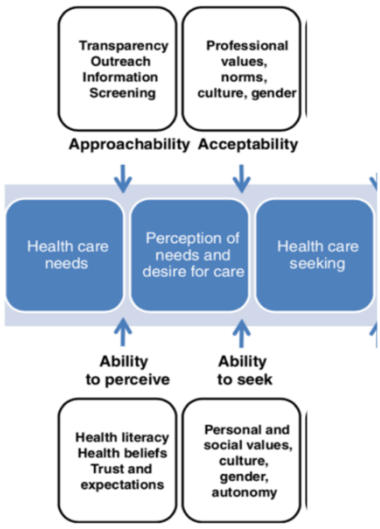


Figure 2*: The figure has been adopted from Levesque et al., 2013.*

2.3 Gender Disparities: Understanding Need and Unmet Need Across Sex

The burden of need for care and support is carried by women. The literature suggests that women tend to have poorer health than men resulting in a greater need for care (Nathanson, 1975,1977). The need for care is compounded by the fact that women tend to have differentiated health needs including reproductive and maternal care (ICOWHI, 2011). In South Africa, certain societal norms contribute to women having poorer health, including their increased exposure to abuse in the form of IPV and domestic violence. Furthermore, many women lack agency over their bodies making them more vulnerable to diseases, including HIV/AIDS, which increases their need for care (Mabaso et al., 2019; Lencoasa, 2023). Despite this need for healthcare by women, underfunding of healthcare (Bloom, 2023) has exacerbated women's need and deepened gender health inequalities. This is because, globally women are more vulnerable to being excluded from the productive economy. Due to this exclusion, women rely more on public goods and services including public healthcare (Himmelweit,

2016). Hence, the importance of this study to give greater insight to which correlates of need deepen the gender gap and what measures could possibly reduce the gap.

If we adopt the concept that unmet need represents unrealized access, and that access is influenced by one's perception of needs and desire for care (Levesque et al., 2013), then it becomes clear that a range of factors, including cultural and social norms, impact a person's perception of need and their desired for care. In many societies with strong patriarchal influences, unmet need is associated with the distinct experiences that men and women have within the healthcare system, shaped by cultural and societal factors. Previous studies have found that women overall make greater use of healthcare. It is commonly accepted that women have differentiated healthcare needs, which creates a greater need for care and consequently a greater use of healthcare. Additionally, women engage in health-seeking behaviour to a greater extent than men. Women are more likely to make use of primary care services such as screenings, nutrition counselling and sexual health care (National Academies of Science, 2018). Therefore, the ability of women to identify healthcare services, and make efforts to reach such services is greater resulting in lower unmet need. This study adds to existing literature by analysing if similar trends are observed within Urban Gauteng.

However, for men the narrative if different. A study by Novak and others (2019) that looked at health utilisation among married heterosexual men found that healthcare use at several levels including organisational, interpersonal, and individual levels was connected to themes around masculinity. Despite men being at higher risks of mortality and morbidity they make less use of healthcare due to a perceived feminisation of healthcare utilisation. Therefore, even when men experience serious health issues they avoid making use of healthcare because of beliefs that they need to be resilient and independent. This highlights societal norms that have resulted in men not engaging in the exercise of access care and support, which presumably increases their unmet need.

2.4 Gendered Insight into IPV: Addressing Need and Unmet Need for Care and Support

Intimate partner violence (IPV) is the most common form of violence worldwide (Oram et al., 2022). It encompasses various forms of abuse between partners or former partners, including physical, sexual, psychological, and economic abuse. Globally, IPV has been recognised as a gendered issue whereby women bear the burden of intimate partner violence (BMJ, 2021). However, the prevalence of male victims is becoming an increasing public health concern (Scott-Storey et al., 2023). IPV is a pronounced health problem with it affecting individuals of

all socio-economic backgrounds (Stockman et al., 2015). It results in physical and mental health issues, with a history of violence being associated with cumulative consequences even after the violence has stopped (BMJ, 2021).

Interpersonal violence is the second largest burden of disease in South Africa following HIV/AIDS, with the country reporting the highest rate of intimate partner homicide globally (Gordan, 2016). A high prevalence of intimate partner violence has pronounced economic costs, including significant expenditure on services such as healthcare, the loss of income for victims and their families, reduced productivity among victims due to their health being compromised, and a negative impact on human capital formation (Duvvury et al., 2013). The above-mentioned economic costs are unfavourable for any nation, but more so for a developing country like South Africa that needs to maximise economic productivity.

IPV creates a great need for care and support because of the physical and psychological harm that victims experience. IPV disproportionately affects women, which would imply that the need for care and support for women experiencing IPV would be greater because of the high prevalence of victimhood.

Despite the need for care and support among victims of IPV, various barriers exist that prevent victims from getting the care and support they need. Barriers include; a lack of knowledge among victims about the resources that are available to them, a lack of confidence in healthcare practitioners (HCPs), poor detection of victims by HCPs, stigmatisation and more (Langhinrichsen-Rohling et al., 2020; Silva et al., 2022). Hence, IPV victimisation is often underreported, meaning victims do not always get the care and support that they need, resulting in unmet needs. Interestingly, with unmet need because of the increasing prevalence of IPV among men things are more nuanced. Storey-Scott and others' (2023) review of IPV among men highlights how help-seeking behaviour by men for IPV is far less than that of women. The reduced help-seeking behaviour increases the probability of unmet need. Harmful masculinity is one of the pervasive structure that affects both the expression and experience of IPV among men. Most societies are shaped by patriarchal beliefs that position men in the dominant position, making men more hesitant to seek help out of fear of being ostracised. Further, measures of IPV typically focus on addressing the needs of women therefore, what men perceive to be abusive or violent acts is poorly understood resulting in deficiencies in the conceptualisation of men’s experience of IPV, increasing the probability of them being overlooked when they seek care and support. Men also tend to experience more psychological abuse, which is harder for health practitioners to identify, adding to the veil of silence and

resulting in greater unmet need. Hence, this study adds to the existing literature concerning the health economics of need and unmet need, by including men in the analysis of need and unmet need for care and support by victims of IPV.

3. Aims and Objectives

Given that this study utilizes the Humanitarian approach and Levesque et al.'s (2013) framework to conceptualize need and unmet need. The need for care is recognized as arising from any disruption to well-being, while unmet need is understood as unrealized access. Therefore, the research question below was posed within the context of these frameworks

The primary objective of this paper was to investigate the prevalence of need and unmet need. Furthermore, the study aimed to determine whether the prevalence of need or unmet need varied by sex, and if differences existed, to identify the significant factors contributing to these variations. This inquiry was conducted with a particular emphasis on IPV, given its high prevalence within the South African context.

3.1 Questions related to the need for care and support

- Of the sub-components of need - poor health, unable to work, depressed and inability to socialise- which one is the greatest contributor to overall need?
- Does need differ across sex?
- Which correlates of need are significant contributors to the difference in need across sex?
- Is IPV a significant correlate of need?
    - If so, does IPV contribute to the difference in need across sex ?

3.2 Questions related to unmet need

- Of the sub-components of need - poor health, unable to work, depressed and inability to socialise- which one is the greatest contributor to overall unmet need?
- Does unmet need differ across sex?
- Which correlates of unmet need are significant contributors to the difference in unmet need across sex?

- Is IPV a significant correlate of unmet need? If so, does IPV contribute to the difference in unmet need across sex?

Considering the literature discussed in section 2 of the paper. It is hypothesised that there is a significant prevalence of need and unmet need, and that these factors differs across sex. Additionally, it is predicted that need for care and support would be greater for women than for men. However, unmet need will be more pronounced for men. Furthermore, it is hypothesised that a history of IPV is a significant correlate, increasing need for women and unmet need for men.

4. Data

The data that was used in this study is from the Quality of Life survey of 2020/2021. The data collection was conducted by GeoSpace International and is freely available on the Data First Portal. The survey consists of an interviewer-administered component that focuses on themes including basic services, transport, health, Covid-19, and community . The second part of the questionnaire is self-completed and deals with sensitive content including income and violence, for this study the relevant categories are health and violence. The survey consisted of 214 questions and was available in English and eight other languages. Data collection occurred across Gauteng covering all 529 wards in the province. At least 600 interviews were done per municipality and clustered within randomly sampled Enumeration Areas (EAs). To ensure the integrity of the data, spatial checks using GIS data were used to ensure that interviews were conducted at the appropriate points. Automated checks were also done on incoming data to identify sampling challenges. Telephonic call-backs were used as a means to resolve data queries, and only interviews that were deemed valid were included in the final dataset resulting in a sample size of 13 616, and from that 11 284 of the observation were relevant for need and 3 875 of the observations were relevant for unmet need. The data was weighted to ensure that it represented the population at a municipal and provincial level (QoL, 2021).

5. Methodology

5.1. Need for Healthcare

The analysis assessed the following:

- The prevalence of need.

- The correlates of need.
- How need differed across sex and significant contributors to the gender gap.

The models:
A summary statistic was used to determine the prevalence of need. A Logistic regression was used to determine the correlates of need. A logistic regression and t-test were used to identify disparities in need across sex. Lastly a decomposition was used to analyse the contributors to the differences in need across sex. A detail description of the decomposition is given in section 5.4.

The dependent variable-need:
The need variable was derived from the four sub-components, poor health status, unable to work, and inability to socialise. Along with the depressed variable based on the PHQ-2 mental health measure for depressive symptoms. The construction of the dependent variable is outlined in Table 1.

Table 1: Dependent Variable-Need for care

Variables	**Outcome**	**Question from Survey**
Poor Health	= 1 if poor or very poor, = 0 if good or excellent	Q13.6:
Unable to Work	= 1 if always or some of the times and = 0 if hardly never and never	Q.13.7:
Inability to Socialise	= 1 if always or some of the times and = 0 if hardly never and never	Q13.8:
Depressed	= 1 if the total score is 3 and above, = 0 if below 3, derived from the sum of the scores on each of the following two variables:	Q13.9 and Q13.10:
Need	1 if poor_health ==1 | unable_work ==1 | inability_socialise ==1 | depressed ==1, = 0 otherwise	

**Scoring of PHQ-2 mental health measure in appendix*

5.2.Unmet need

The analysis analysed the following:

- The prevalence of unmet need.
- The correlates of unmet need.
- How unmet need differed across sex and significant contributors to the gender gap.

The models:

A summary statistic was used to determine the prevalence of unmet need. A Logistic regression was used to determine the correlates of unmet need. A logistic regression and t-test were used to identify differences in unmet need across sex. Lastly a decomposition was used to identify the contributors to the difference in unmet need across sex. A detail description of the decomposition is given in section 5.4.

The dependent variables-unmet need:

The unmet variable is derived from four constituent variables, unmet health, unmet work, unmet socialise and unmet depressed. The description of this variable can be found in Table 2.

Table 2: Dependent Variable-Unmet Need

Variables	**Outcome**	**Question from Survey**
Unmet Health	= 1 if poor or very poor and chose response 6 to Q13.1, = 0 if otherwise	Q13.6:
Unmet Work	= 1 if always or some of the times and chose response 6 to Q13.1, = 0 if otherwise	Q.13.7:
Unmet Socialise	= 1 if always or some of the times and chose response 6 to Q13.1, = 0 if otherwise	Q13.8:
Unmet Depressed	= 1 if the total score is 3 and above and chose response 6 to Q13.1, = 0 if otherwise	Q13.9 and Q13.10
Unmet Need	=1 if unmet_health ==1| Unmet_work == 1, unmet_socialise ==1, unmet_depressed ==1, = 0 otherwise	

**Scoring of PHQ-2 mental health measure in appendix*

5.3.Independent variable

Variable of interest-IPV:

The IPV variable is the primary variable of interest across all focus areas, need and unmet need. The construction of the variable is described in Table 3.

Table 3 : IPV variable

Type of violence	Outcome	Question from survey
Hitting	= 1 if yes and current or former partner, = 0 if otherwise	Q15.8 and Q15.9
Kicking	= 1 if yes and current or former partner, = 0 if otherwise	Q15.11 and Q15.12
Weapon	= 1 if yes and current or former partner, = 0 if otherwise	Q15.14 and Q15.15
Sexual	= 1 if yes and current or former partner, = 0 if otherwise	Q15.16 and Q15.17
IPV	= 1 if hitting ==1 | kicking ==1| weapon == 1 | sexual == 1, = 0 otherwise.	

Covariate variables:

The covariates that were included in the models are; sex, age, race, social capital index, education, household size, community trust and IPV support. Along with, employment, married disempowered, and wealth index which is derived using a multiple correspondence analysis. The list of the variables is available in Table 4.

Table 4: The covariates

Independent	Outcome	Survey Question
Age	Continuous	Q14.2
Sex	= 1 if female, = 0 if male.	Q.A2
Race	= 1 if black, = 0 otherwise	Q.A1
Social Capital Index	Continuous	The variable is constructed from variables on community cohesion, social trust and reciprocity.
Education	Continuous	Q14.1
Household Size	Continuous	Q14.5
Married	= 1 if yes, =0 if otherwise	
Community Trust	=1 if most people can be trusted, =0 if otherwise	Q4.3

IPV Support	=1 if strongly agree and agree, =0 if neither agree or disagree, disagree or strongly disagree	Q15.20
Employment	= 1 if no, = 0 if yes	Q10.4
Disempowered	=1 if strongly agree and agree, =0 if neither agree or disagree, disagree or strongly disagree	Q8.3:
Wealth index	Continuous (normalised);	The variable is constructed from variables on asset ownership, access to public services and housing characteristics.

5.4. Decomposition

The main objective of this paper is to assess gender health gaps concerning need and unmet need for care and support. To identify gender differences in these components of healthcare the Blinder-Oaxaca decomposition was used. The method decomposes differences in mean levels of outcome into those due to observable characteristics, endowments/characteristic effect, and those due to unobservable characteristics, coefficients/coefficient effect, (Blinder, 1973; Oaxaca, 1973). The study used multivariate decompositions, which allowed for detailed decompositions and standard errors for both the endowment and coefficient components. Multivariate decompositions are used for non-linear decompositions, which are the decompositions in this study. Multivariate decompositions help overcome issues of path dependency and identification issues that can arise when choosing a reference category for dummy variables included in the predictors (Power et al., 2011).

The Multivariate Blinder-Oaxaca decomposition in the context of gender health disparities can be written as follows:

$$\bar{y}^M - \bar{y}^R = \left[F\left(X^{\overline{M}}\hat{\beta}^M\right) - F\left(X^{\overline{R}}\hat{\beta}^M\right)\right] + \left[F\left(X^{\overline{R}}\hat{\beta}^M\right) - F\left(X^{\overline{R}}\hat{\beta}^R\right)\right]$$

**The equation is adapted from Murendo et al., 2018.*

In the above equation, for need the superscripts M and R represent women and men respectively. Y bar is the outcome of interest that is averaged over each group. The β are the

estimates of the logit regression, and $F()$ is the cumulative distribution of the logistic distribution. The X and β are in vector form. The first bracket measures the gap due to differences in endowments, which is the expected observation if the comparison group were given the reference group's distribution of covariates. The second bracket measures the gap due to the coefficient effect is immeasurable or unobservable endowments. It looks at the anticipated difference if the reference group experienced the same behavioural response as the comparison group to X. Note a positive coefficient in the explained component (distribution of characteristics) is indicative that a reduction in inequality is expected if men and women are made equal on the distribution of the covariates (Power et al., 2011), whilst a negative coefficient is indicative of the opposite. Please note that when analysing unmet need the superscripts M and R represent men and women respectively, in other words women become the reference group and men become the comparison group.

6. Results

6.1 Need

6.1.1 The prevalence of need

The summary statistics table below is followed by logistic regression for need.

Table 5: Summary Statistics for need

Variable	Sample (n)	Mean	Std. Dev	Min	Max
Poor Health	11,284	.1174229	.3219378	0	1
Unable to Work	11,284	.2263382	.4184791	0	1
Inability to Socialise	11,284	.2164126	.411817	0	1
Depressed	11,284	.1467565	.3538787	0	1
Need	11,284	.3590925	.4797556	0	1

The findings revealed that 35% of people had a need for care and support. The largest contributor of that need was being unable to work at 22.63%. The inability to socialise, whereby a person's health prevents them from socialising, is the second largest contributor at 21,64%. This is followed by being depressed at 14,67% and lastly being in a state of poor health contributes 11,74% to needing care and support.

6.1.2 The correlates of need

Table 6: Logistic regression for need

	Model I
Sex	1.3935***
	(.0729)
Black	2.2103***
	(.2455)
Age	1.0239***
	(.0026)
Education	0.9535***
	(.0131)
Employment	0.7562***
	(.0394)
Wealth Index	1.0449
	(.0394)
Married	0.8169**
	(.0570)
IPV	1.5073**
	(.2399)

**Standard deviations are the values in brackets*

When analysing the correlates of need we see that education, employment and being married are all protective correlates, in other words they reduce the odds of needing care and support. Concerning education, the results showed that the odds ratio was 0.95 in other words an additional year of education reduced the odds of needing care by 5%. Marriage also reduced the odds of needing care with being married having an odds ratio 0.82 meaning that being married decreased the odds of needing care and support by 18%. Employment had the largest

association with reducing the odds of needing care, with being employed reducing the odds of needing care and support by 29%, with an odds ratio of 0.71. on the other hand, being older in age increased an individual's odds of needing care with the an additional year in age increasing the odds of needing care by 1.02. Additionally, a self-reported history of IPV was also unfavourable, with the odds of needing care increasing by 1.51 for such individuals. Being Black was also a significant correlate to need ($p<0.001$), as being black doubled ones odds of needing care, with the variable having an odds ratio of 2.06. A point of interest for this study was the findings of being female. The results revealed that being female increased the odds of needing care and support, with women having an odds ratio of 1.39. The t-test further affirmed that there are significant differences in need across sex. A t-value of -10.54 further confirmed that the null hypothesis of no significant difference in need across sex should be rejected at a 95% level of significance ($p<0.001$).

6.1.3 Gender gaps in need

Table 7: Decomposition for need

	Per cent	**Standard Error**
Explained: due to differences in characteristics	32.66***	0.0039
Unexplained: due to difference in coefficient	67.34***	0.0117
Due to differences in characteristics		
Wealth	-0.03	0.0000
Education	1.90**	0.0007
Black	2.21***	0.0005
Age	4.13***	0.0006
Employment	15.93***	0.0029
IPV	6.17**	0.0022
Married	2.36**	0.0013
Due to differences in coefficient		
Wealth	-1.28	0.0010

Education	-23.02	0.0491
Black	33.20	0.0334
Age	31.81	0.0352
Employment	11.40	0.0085
IPV	-4.25	0.0037
Married	-6.06	0.0136

Table 8: Logistic regression for need when sex==1 and sex==0

	Sex==1	**Sex==0**
Black	2.21***	1.8554***
	(.2455)	(.2426)
Age	1.02***	1.0202***
	(.0026)	(.00031)
Education	.9535***	.9626**
	(.0131)	(.0142)
Employment	0.7562***	.6549***
	(.0557)	(..0510)
Wealth Index	1.0449	0.9771
	(.0394)	(.0699)
Married	.8169***	0.8574*
	(.0571)	(.0699)
IPV	1.5074**	2.1866**
	(.2399)	(.6018)

**Standard deviations are the values in brackets*

The decomposition showed that both endowments and coefficients contributed to the observed gender differences in the need for care. Endowments contributed 32,66% ($p<0.001$) and coefficients contributed 67,34% to the difference. Therefore, coefficients were a more significant contributor to the gender gap in need. When considering the gender gap in need due to endowments the results revealed that education was the smallest contributor to the difference, but was still significant ($p<0.001$). If educational levels among women (average = 11.2 years) were to be equivalent to that of men (average=11.5 years) the gender gap concerning the need for care and support would decline by 1.90% ($p=0.010$). Additionally, in terms of race if black women were equated to black men the gender health gap in need for care would decrease by 2.21% ($p<0.001$). Additionally, equalising the rate of marriage would reduce gender disparity in need. The findings showed that 58% of women in the sample were married while 66% of men were married. If women got married to the same extent that men did, the gender gap in need would decline by 2.36% ($p<0.001$). The results also indicated that on average within the sample women were older than men, with women having an average age of 42 years of age and men having an average age of 41 year old. Therefore, if the average among women was lowered to equal that of men the gender gap in need would decrease by 4.13% ($p<0.001$). Further, the findings revealed that while 55,83% of men within the sample were employed only 37,74% of women were employed. Therefore, if employment among women could be increased to levels equivalent to that of men the gender gap for need would decrease by 15.93% ($p<0.001$). Lastly, the findings showed that the prevalence of IPV among women was 4.68% while it was only 1.52% for men therefore by equalising the level of IPV so that women experience the same level of IPV as men the gender gap in need would decrease by 6.17%.Although, coefficients were significant at a group level none of the coefficients were significant at an individual level.

6.2 Unmet Need

6.2.1 Prevalence of unmet need

Table 10: Summary Statistics of unmet need

Variable	Obs	Mean	Std. dev.	Min	Max
Unmet Health	1,283	.0085737	.0922322	0	1
Unmet Work	2,455	.009776	.0984091	0	1
Unmet Social	2,344	.0106655	.1027438	0	1
Unmet Mental	1,566	.0536398	.2253776	0	1
Unmet Need	3,875	.028129	.1653628	0	1

The results indicated that 2,8% of individuals experienced unmet need concerning care and support. Unmet need was conceptualised using four sub-components, including unmet mental care which was the largest contributor to unmet need at 5.36%. Unmet social was the second largest contributor at 1.07%. This was followed by unmet work at 0.98%% and the smallest contributor to unmet need was unmet health at 0.86%, which refers to being in poor state of health and not receiving the needed care.

Table 11: 6.2.2 The correlates of unmet need

	Model IV
Sex	0.2119***
	(.0582)
Black	2.2131*
	(.9681)
Age	.9546***
	(.0106)
Education	0.9698

	(.0479)
Employment	1.1367
	(.2820)
Wealth Index	1.4667**
	(.2013)
Social Capital Index	0.6723**
	(.1098)
Community Trust	1.5126*
	(.3741)
Disempowered	0.8609
	(.2243)
Household size	0.8306**
	(.2243)
Married	0.9758
	(.2441)
IPV	0.4377
	(.2899)
IPV Support	1.2653
	(.3154)

**Standard deviations are the values in brackets*

The findings show that age, wealth index, social capital and household size and sex were all significant correlates of unmet need at a 5% significance level. Concerning age the results showed that with an additional year of age the odds of unmet need concerning care declined, with age having an odds ratio of 0.95. Social capital was also found to be a protective measure against unmet need with increased social capital reducing the odds of experiencing unmet need by 33%, at an odds ratio of 0.67 (p=0.015). Increased household size was also found to reduce

the odds of unmet need as household size had an odds ratio of 0.83 (p=0.012). Unexpectedly, wealth was found to increase the odds of unmet need with an additional unit in wealth index increasing the odds of unmet need by 1.47. Lastly, sex was found to be a significant correlate of unmet , with being female reducing the odds of experiencing unmet need at an odds ratio of 0.21. The t-test confirmed that there was a significant differences in unmet need across sex with a t-value of 1.45 at a 5% significance level.

6.2.3 Gender gaps in unmet need

Table 12: Decomposition of unmet need

	Per cent	**Standard Error**
Explained: due to differences in characteristics	8.62*	(.0023)
Unexplained: due to difference in coefficient	91.38***	(.0081)
Due to differences in characteristics		
Wealth Index	-1.14	(.0002)
Education	0.43	(.0004)
Black	-0.66	(.0003)
Age	2.43*	(.0007)
Employment	-0.87	(.0010)
IPV	2.86**	(.0006)
Married	-0.49	(.0007)
Social Capital Index	0.97	(.0000)
Community Trust	0.13	(.0000)
Disempowered	-0.07	(.0001)
Household Size	5.88	(.0019)
IPV Support	-0.85*	(.0002)
Due to differences in coefficient		

Wealth Index	2.07	(.0011)
Education	-42.97	(.0309)
Black	-15.42	(.0204)
Age	-4.58	(.0225)
Employment	2.63	(.0057)
IPV	3.10*	(.0008)
Married	6.40	(.0075)
Social Capital Index	-.0.05	(.0001)
Community Trust	-8.09	(.0039)
Disempowered	-7.87	(.0041)
Household Size	20.40	(.0102)
IPV Support	-35.74**	(.0064)

Table 13: Logistic regression of unmet need when sex==1 and sex==0

	Sex==1	**Sex==0**
Black	2.9980	2.1081
	(2..6831)	(1.0562)
Age	.9601**	0.9580***
	(.0191)	(.0122)
Education	1.0530	.9702
	(.1223)	(.0538)
Employment	.8175	.9244
	(.4130)	(.0538)
Wealth Index	1.7996**	1.4037**
	(.4315)	(.2206)

Social Capital Index	0.7215	0.6706**
	(.2407)	(.1116)
Community Trust	2.2347*	1.3446
	(1.0282)	(.4092)
Disempowered	1.2300	0.7546
	(.5494)	(.2394)
Household Size	0.8065	0.9197
	(.1062)	(.0686)
Married	0.8726	1.0757
	(.3659)	(.3454)
IPV	.0951**	1.1876
	(.0992)	(.2874)
IPV Support	3.7990**	0.9811
	(1.9754)	(.2875)

**Standard deviations are the values in brackets*

The results showed that at a group level only coefficients were significant ($p<0.001$) contributors in explaining the gender gap in unmet need, with coefficients explaining 91.38 of the difference. However, when analysing endowments at an individual level a self-reported history of IPV was found to be a significant contributor to the gender gap in unmet need. The decomposition revealed that if men with a history of self-report IPV were equalised to women that the gender gap in unmet need would decrease by 2.86%.

7. Discussion

7.1 Need

Overall, the results revealed that healthcare needs differ by sex, with women experiencing greater need. One significant reason for this, according to empirical evidence, is fiscal austerity.

Government spending cuts have led to substantial reductions in public healthcare funding. For instance, in the 2021/22 fiscal year, healthcare spending was reduced by 2.2% in real terms, despite the ongoing COVID-19 pandemic. More recently, in the 2023/24 fiscal year, the health budget was further cut by 4.9% in real terms (Sachs et al., 2023), resulting in severe underfunding. Despite these austere measures, underspending by National Departments still occurs. In Gauteng, the Health Department underspent by R2.7 billion in the 2022/23 fiscal year. Although this underspending negatively impacts all South Africans, it disproportionately affects women due to their greater reliance on public care (Lencoasa, 2023).

While it is important for the state to consolidate its debt, it must not overlook its social responsibility. Therefore, it is imperative that the state prioritizes progressive healthcare policies focused on improving health outcomes and addressing existing gender disparities. The findings also suggest that narrowing the gap in need between black women and black men would reduce the overall gender disparity. However, as race is not a changeable characteristic, targeted interventions for black women, such as health screenings and outreach programs aimed at increasing health literacy, could help them better identify and access services to maintain their health. By reducing their need for care, such interventions would contribute to closing the gender gap in healthcare needs."

"Equalizing the years of education so that women attain the same average number of years as men was also found to reduce the gender gap in healthcare needs. This finding aligns with existing research on the relationship between education and health. Hahn and Truman (2015) assert that education is a vital component of both current and future health. The Fundamental Cause Theory (FCT) posits that social factors like education are foundational in determining access to resources that improve overall health. Similarly, the Human Capital Theory (HCT) conceptualizes education as an investment that yields returns, which can be used to enhance an individual's health (Zajcova and Lawrence, 2018).Education is positively associated with health because it improves skills and knowledge, enabling individuals to be more productive and gain greater access to resources. This, in turn, allows them to adopt healthier lifestyles, thereby reducing their need for healthcare and support. Furthermore, education empowers individuals with knowledge and develops their ability to reason and problem-solve, increasing their effective agency and enabling them to live healthier lives (Hahn and Truman, 2015)."

"Increasing the marriage rate among women to match that of men, who have an average marriage rate of 66%, was also found to decrease the gender gap in healthcare needs. Research shows that, on average, married men and women live approximately two years longer than

their unmarried counterparts. This increased longevity is attributed to the positive influence of marital partners on health behaviours. Studies indicate that married individuals tend to eat better and are less likely to smoke or drink excessively, leading to better health and reduced need for care.

However, while there are health benefits associated with marriage, the findings suggest that these benefits are more pronounced for men married to women than for women married to men. Women are often the ones who reinforce healthy behaviours within marital relationships (Richards et al., 2023). Therefore, although increasing marriage rates among women could reduce the gender gap in healthcare needs, the potential impact should not be overstated."

Lowering the prevalence of intimate partner violence (IPV) among women was also found to reduce the gender gap in healthcare needs. IPV is a significant health problem that affects individuals across all socio-economic backgrounds (Stockman et al., 2015). Women often have a greater need for care and support because they disproportionately bear the burden of IPV. Due to patriarchal constructs, women typically have less agency over their bodies and are more vulnerable to abuse, which negatively impacts their health (BMJ, 2021). In South Africa, power asymmetries in relationships are a major contributor to IPV. Many women enter relationships with men to escape poverty or other socio-economic challenges. Therefore, initiatives that target the reduction of gender inequality—such as improving girls' access to education, enhancing employment opportunities for women, and addressing period poverty—are essential (Foreign Policy, 2024). These interventions aim to empower women, reducing their vulnerability to IPV, ultimately improving their health and decreasing their need for care.

A critical link exists between health and employment. This relationship is complex and bidirectional: health impacts the quality of work one can perform, and conversely, the quality of work influences a person's health. For the purposes of this study, the impact of employment on health is of particular interest. The findings indicate that if women were employed at the same rate as men, the gender gap in healthcare needs would decline by approximately 15%. Employment, especially in well-paying jobs, is associated with better access to quality education, safer neighbourhoods, and nutritious food—all of which positively affect a person’s health and reduce their need for care (RWJ, 2013). In South Africa, many women remain excluded from the productive economy due to their childbearing role and societal expectations to assume care work for children and the elderly within the household (Stats SA, 2023; Lencoasa, 2023). Therefore, policies aimed at alleviating the pressures faced by women—such

as state-provided care for children and the elderly or programs focused on upskilling women for better-paying jobs—are necessary. Such interventions would ensure that women become productive participants in the economy, promoting better health and lessening their need for care.

7.2 Unmet Need

Unmet need is a persistent healthcare issue primarily driven by barriers to care. These barriers often include a lack of available resources and insufficient knowledge among healthcare providers (HCPs) to effectively treat patients (National Academies of Science, 2018). In South Africa, particularly in Gauteng, underspending on healthcare, especially in the development of healthcare infrastructure (Bloom, 2023), exacerbates this issue by limiting accessibility. Poorly equipped health facilities deter individuals in need of care, and even those who seek care often face availability issues, meaning that the facilities are not adequately equipped to meet their needs (PHCPI, 2022). A more comprehensive understanding of the causes of unmet need also requires considering acceptability, which refers to the cultural and social factors that influence an individual's willingness to seek and receive care (Levesque et al., 2013). The findings of this study suggest that gender disparities exist concerning unmet need, with men disproportionately carrying this burden. Further research is needed to explore these disparities and develop targeted interventions.

Previous research has found that men's use of healthcare across various domains—including organizational, interpersonal, and individual levels—is influenced by themes related to masculinity. Socialized ideas of manhood often lead men to delay seeking healthcare, even when they are seriously ill or injured (Novak et al., 2019). In individuals with a history of self-reported IPV, findings revealed that if men with such a history were compared to women with a similar background, the gender gap in unmet healthcare needs would decrease by 2.86%. This result is expected, considering that men who experience IPV often remain untreated due to factors like IPV assessments, which are typically designed with a focus on female victims. Additionally, 'toxic masculinity' leads many men to believe they must be 'tough' and cannot be victims of abuse. As a result, men often tolerate physical and emotional pain and are reluctant to report abuse (Storey-Scott, 2023). In a patriarchal society like South Africa, where an individual's ability to seek care is heavily influenced by personal and social values, it is expected that men with a history of IPV would become more isolated and resistant to seeking care, perceiving it as inappropriate. Despite the impact of cultural and societal forces, the

positive aspect is that these constructs are not static. Therefore, interventions aimed at reframing views on masculinity and redefining what constitutes masculine behavior are important. For instance, educating men that seeking care is not feminized is crucial. Regarding IPV, it is essential that assessments become more comprehensive to identify male victims as well. Furthermore, it is important to educate society that abuse is not gender-specific. In other words, men must be made aware that they too can experience abuse, and that such experiences do not diminish their manhood. This re-education is necessary to address gendered differences in unmet healthcare needs.

Concerning the correlates of unmet need. The results revealed that a higher wealth index was associated with increased odds of experiencing unmet need, with the wealth index having an odds ratio of 1.47. While the finding was unexpected, as historically, literature has shown that higher earnings are associated with greater access to healthcare and thus better overall health, Levesque's framework (2013) offers a basis for an alternative explanation when unmet need is considered within the context of access. Access is influenced by factors on both the supply and demand sides, which may help explain why wealth can increase the likelihood of unmet needs. The framework suggests that healthcare needs are shaped by the ability to perceive those needs. Typically, individuals with higher wealth indexes have more access to resources, fostering greater self-awareness, including awareness of their health and healthcare needs (St. Peters, 2021). However, recognizing one's healthcare needs does not guarantee the availability of adequate services to meet those needs (Acheson, 1978). Thus, it can be hypothesized that increases in wealth are linked to a higher likelihood of experiencing unmet needs, due to the enhanced ability to perceive healthcare needs without a corresponding increase in available services." Another interesting finding was that an additional year in age reduced the odds of experiencing unmet need. It is commonly accepted that getting older is associated with poorer health as older individuals are more susceptible to illness and injury (WHO, 2021). Despite the greater need for care unmet need among the elderly is lower than unmet need among the young. A possible explanation for this could be public policy that prioritising elderly interest through provisions such as pensions (Tooze, 2024). This prioritisation of the elderly enables them access to resources that aids them meet their needs. In contrast, young people do not have policy interventions that prioritises their interest and therefore, are not afforded the same access. This means that they are more vulnerable to experiencing unmet need. Therefore, interventions like the Basic Income Grant would help address the issue of access for young people and possibly reduce unmet need among them.

8. Limitation

Despite the relevance of this study there were various limitations. Firstly, small data size for unmet need only 3875 of the observations were relevant for unmet need, further the sample size for the sub-components had even smaller samples sizes due to the limited responses by participants, resulting the possibility of selection bias. However, the integrity of the collection process of the data and the fact that the survey was available in English and eight other languages. Additionally, data collection occurred across Gauteng covering all 529 wards in the province help to reduce the probability of selection bias. Secondly, the data was secondary and therefore not collected solely for the intentions of this study. Consequently, it was not possible to do some of the analysis, that was initially projected, because there were no observable observations. Below are the analyses that could not be performed because of the nature of the data.

Ideally, an analysis of unmet need would have included an examination of the association between unmet need and access to healthcare. This would have allowed for an assessment of whether the availability of reachable healthcare facilities reduces unmet need and its gendered impact. Unfortunately, there were insufficient observations to conduct this analysis. Additionally, it was not possible to assess the relationship between financial protection and unmet need, or to examine whether reliance on public healthcare facilities is associated with higher levels of unmet need. Given the challenges facing public healthcare in South Africa, it would have been valuable to determine if the use of public healthcare does, in fact, increase unmet need, particularly among women, who are more reliant on public services. Lastly, due to the nature of the data on unmet need, the sample size was notably smaller than the sample for need, which limited the analysis further.

9. Conclusion

It is evident that the concepts of need and unmet need vary significantly between sexes, with women shouldering the burden of need and men the burden of unmet need. To address the gender gap in need, increasing employment among women would be the most impactful strategy. Employment is critically linked to health, as it provides greater access to resources and services that are positively associated with well-being. Therefore, targeted interventions to boost female participation in the labour force are essential to closing the gender gap in need.

The results also suggest that reducing the average number of female victims of IPV to match that of men would significantly narrow the gender gap in need. Since women disproportionately bear the burden of IPV, it is unsurprising that reducing its prevalence among women would help to close this gap. Interventions aimed at curbing IPV among women are not only crucial for public health but also for alleviating the economic costs associated with IPV. Although this study acknowledges that women primarily bear the burden of IPV, it is essential to recognize that the lower reported levels of IPV among men are multifaceted and warrant further investigation. Research suggests that these low levels are not necessarily indicative of men not experiencing IPV, but rather of men not reporting it.

In terms of unmet need, men face a significant challenge. Men's health-seeking behaviors, coupled with societal and cultural norms, often result in their not accessing the healthcare they need. The factors contributing to unmet needs underscore the interconnectedness of health with broader social and economic issues. Addressing these unmet needs requires a focus on the social and cultural constructs that perpetuate them. Future research should explore the effectiveness of interventions, such as educational programs that promote cultural and societal reforms, in changing men’s perceptions of need and their willingness to seek care. Such interventions could play a vital role in reducing unmet needs among men.

10. Reference List

- Acheson, R. (1978) " The definition and identification of need for healthcare" *Journal of Epidemiology and Community Health,* 32(1): 10-15.
- Albanesi, C., Tomasetto, C. and Guardabassi,V. (2021) "Evaluating interventions with victims of intimate partner violence: a community psychology approach" *BMC Women's Health*, 21(138).
- Alcalde-Rubio, L et al. (2020) "Gender disparities in clinical practice: are there any solutions? Scoping review of interventions to overcome or reduce gender bias in clinical practice" *International Journal for Equity in Health,* 19(166).
- Asadi-Lari, M., Packham C., and Gray, D. (2003) "Need for redefining needs" *BioMed Central,* 1(34)
- Battle,CL.andZlotnick.C. (2005) "Prevention of Postpartum Depression"*Psychiatric Annals*, 35(7): 590:598
- Blinder, A.S. (1973) "Wage Discrimination: Reduce form and Structural Estimates" *Journal of Human Resources,* 8: 436-455
- Bloom, J. (2023) " Gauteng Health underspends by R2.7bn" Available at: https://www.politicsweb.co.za/politics/gauteng-health-underspends-by-r27bn--jack-bloom (Accessed 31 March 2024).
- BMJ (2021) "Intimate partner violence as a public health problem" *BMJ.* Available from: https://blogs.bmj.com/bmj/2021/03/25/intimate-partner-violence-as-a-public-health-problem/ (accessed 17 July 2023).
- Bradshaw, J. (1972) Taxonomy of social need. In McLachlan G (ed), *Problems and Progress in Medical care: Essays on Current Research*, 7th ed. Oxford: Oxford University Press: 71-81
- Duvvury, N et al. (2013) "Intimate partner violence: economic costs and implications for growth and development" *Women's voice, Agency and Participation Research Series,* 3. Available from: https://www.worldbank.org/content/dam/Worldbank/document/Gender/Duvvury%20et%20al.%202013%20Intimate%20Partner%20Violence.%20Economic%20costs%20and%20implications%20for%20growth%20and%20development%20VAP%20No.3%20Nov%202013.pdf. (Accessed 17 July 2023).
- Foreign Policy. (2024) "The Economics of Period Poverty" *Foreign Policy.*
- Gordan, C. (2016) " Intimate partner violence is everyone's problem, but how should we approach it in a clinical setting" *SAMJ,* 106(10): 962-965.
- Gavurova, B., Ivankova, V., Rigelsky,M. and Suler, P (2021) " Gender health inequalities and economic productivity OECD countries" 34:2853-2871.
- GWU. (2021) "What is Preventative Health" *The George Washington University.* Available from: https://healthcaremba.gwu.edu/blog/what-is-preventive-healthcare/ (Accessed 7 April 2023).
- Hahn, R. and Truman B. (2015) "Education Improves Public Health and Promotes Health Equity", 45(4): 657-678.
- Himmelweit,S. (2016), 'Conclusion: Explaining Austerity and its Gender Impact', in H. Bargawi, G. Cozzi, and S. Himmelweit (eds.) *Economics and Austerity in Europe. Gendered Impacts and Sustainable Alternatives*. London: Routledge
- ICOWHI. (2011) " Health of Women and Girls Determines the Health and Well-Being of Modern World: A White Paper from the International Council on Women's Health Issues" *Health Care Women International,* 32(10): 870-886.

- Institute of Medicine. (2002) "Unequal treatment: Confronting racial and ethnic disparities in health care" *PubMed.* Washington DC: The National Academies Press.
- Jaeggi et al. (2021) "Do wealth and inequality associate with health in small-scale subsistence society" Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8225390/ (17 July 2023).
- Langhinrichsen-Rohling et al. (2020) "Addressing Intimate Partner Violence within the Healthcare System" 1-29.
- Lencoasa (2023) "We are short-chaning South African women with budget cuts, corruption and underspending in health" *Daily Maverick.* Available at: https://www.dailymaverick.co.za/article/2023-08-25-south-african-women-short-changed-in-health/ (Accessed 17 July 2023).
- Levesque, J., Harris, M. and Russell, G. (2013) "Patient-centred access to health care: conceptualising access at the interface of health systems and populations" *International Journal for Equity in Health,* 12(18).
- Marx, M., London L. and Müller, A. (2018) " Missing knowledge of gendered power relations among non-governmental organsisations doing right to do health work: a case study from South Africa" *BMC International Health and Human Rights,* 18 (33).
- Mayosi, B. and Benatar, S. (2014) " Health and Health Care in South Africa – 20 years after Mandela" *New England Journal of Medicine,* 371: 1344-1352
- Mukoma, G et al. (2023) "Healthy eating and physical activity: Analysing Soweto's young adults' perspectives with an intersectionality lens" *PLOS Glob Public Health, 3(7).*
- Murendo, C. and Murenje G. (2018) "Decomposing gender inequalities in self-assessed health status in Liberia" *Global Health Action,* 11(3).
- National Academies of Sciences (2018) "Health Care Utilization and Adults with Disabilities" Available at: https://www.ncbi.nlm.nih.gov/books/NBK500097/ (Accessed 17 July 2023).
- Nathanson, C. (1975) "Illness and the feminine role: A theoretical review" *Social Science and Medicine,* 9:57-62.
- Nathanson, C. (1977) 'Sex, illness and medical care: A review of data, theory and method', *Social Science and Medicine* 11:13-25.
- Novak, J., Peak T., Gast, J. and Arnell M (2019) " Associations between Masculine Norms and Health-Care Utilisation in Highly Religious, Heterosexual Men" *American Journal of Men's Health,* 13(3).
- Ntuli, M et al. (2016) "Gender Inequalities in Morbidity: A South African Investigation" *Journal of Econometrics*, 40(3): 1-25.
- Oaxaca R. (1973) "Male-female wage differentials in urban labour markets", *International Economics Review*. 14:693–709.
- Oram, S. et al. (2022) "The Lancet Psychiatry Commission on intimate partner violence and mental health: advancing mental health services, research, and policy" *The Lancet*, 9(6):485-524.
- Pan American Health Organization. (2019). "Masculinities and Health in the Region of the Americas". Washington, D.C.: PAHO.
- Powers DA, Yoshioka H, Yun M-S. (2011) "mvdcmp: multivariate decomposition for nonlinear response models". *Stata J*ournal, 11:556–576.
- St Peters, E. (2021) " Wealthy, Healthy" *Harvard Medical School*, Available at: https://hms.harvard.edu/news/wealthy-healthy (Accessed 17 July 2023).
- Rensburg, R. (2021) "Healthcare in South Africa: how inequity is contributing to inefficiency" *The Conversation.* Available from: https://www.wits.ac.za/news/latest-

news/opinion/2021/2021-07/healthcare-in-south-africa-how-inequity-is-contributing-to-inefficiency.html (Accessed 17 July 2023).

- Richards, L., Franks M. and Shrout R. (2023) " Marriage provides health benefits-and here's why" *The Conversation,* Available at: https://theconversation.com/marriage-provides-health-benefits-and-heres-why-190731 (Accessed 17 July 2023).
- Rodriguez-Santana, I et al. (2023) " Need, demand, supply in healthcare: working definition, and their implications for defining access" *Health Economics, Policy and Law,* 18(1): 1-13.
- RWJ (2013) " How does employment, or unemployment affect health", Available at:
- Sachs, M., Amra, R., Madonko, T. and Willcox, O. (2023). "Austerity without consolidation" *SCIS Working Paper No. 60.*
- Sanmartin,C et al. (2002) " Changes in unmet health care needs" Statistics Canada, 13(3).
- Sibeko, B. (2019) "The cost of austerity: lessons for South Africa" *IEJ.*
- Silva, T. et al. (2022) "Barriers to help-seeking from healthcare professionals amongst women who experience domestic violence- a qualitative study Sri Lanka" *BMC Public Health,* 22 (721).
- Stevens, A. and Gillam, S (1998) " Needs assessment: from theory to practice: *BMJ,* 316:1448-1452
- Storey-Scott, K. et al. (2023) "What about men? A critical review of men's experience of intimate partner violence" Sage, 24(2): 852-872
- Swetlitz, N. (2021) "Depression's Problem with Men" *AMA Journal of Ethics*
- WHO (2021) "Gender and health", Available at: https://www.who.int/news-room/questions-and-answers/item/gender-and-health (Accessed 17 July 2023).
- WHO. (2002). "Health, economic growth, and poverty reduction". *The report of working group 1 of the Commission on Macroeconomics and health.* World Health Organization. Available from: https://apps.who.int/iris/bitstream/handle/10665/42492/9241590092.pdf;jsessionid=19B0494A7B879D7BE2F98CC714DFCFC5?sequence=1 (Accessed 17 July 2023)
- Zajacova, A. and Lawrence, E (2018) " The relationship between education and health: reducing disparities through a contextual approach" *Annual Review of Public Health,* 39:273-289.

11. Appendix

Survey Questions for covariates

Questions	Answers
Q.A1: To which population group does the respondent belong?	1. Black African 2. Coloured 3. Indian/Asian 4. White 5. Other
Q.A.2: What is the sex of the respondent	1. Male 2. Female
Q4.3: Generally speaking, do you think that most people in your neighbourhood or community can be trusted or that	1. Most people can be trusted 2. You need to be very careful 3. Don't know
Q8.3: People like me cannot influence developments in my community?	1. Strongly agree 2. Agree 3. Neither agree nor disagree 4. Disagree 5. Strongly disagree
Q10.4: Are you unemployed and looking for work?	Are you unemployed and looking for work?
Q14.2: How old are you?	Number, limited from 18-115
Q14.1: What is the highest level of education you have completed?	1. No Education 2. Grade 0 or Grade R 3. Grade 1 or Sub A 4. Grade 2 or Sub B 5. Grade 3, Std 1 6. Grade 4, Std 2 7. Grade 5, Std 3 or ABET 1 8. Grade 6, Std 4 or ABET 2 9. Grade 7, Std 5 10. Grade 8, Std 6, Form I or ABET 3 11. Grade 9, Std 7, Form II, NQF 1 or ABET 4 12. Grade 10, Std 8, Form III, National Trade Certificate 13. Grade 11, Std 9 or Form IV 14. Grade 12, Std 10, Matric 15. A certificate from a college, technikon or university 16. A diploma from a college, technikon or university 17. Technikon or university degree 18. Post graduate degree - e.g. Hons, MA, PhD 19. Unspecified
	Numerical; limited to 1-30
Q15.20: If I wanted to leave a bad relationship, I could access the support and resources I need.	1. Strongly agree 2. Agree 3. Neither agree nor disagree 4. Disagree 5. Strongly disagree

Survey Questions for dependent variables

Q13.1 Where do you usually go for health care?	1. Private health care facilities 2. Public health care facilities (Skip to 13.3) 3. Use public and private facilities (Skip to 13.3) 4. Traditional healer (Sangoma) 5. Spiritual healer (e.g. faith-realted) Not applicable, don't usually need health care (Skip to 13.5)
Q13.6: Would you describe the state of your own health in the past 4 weeks as excellent, good, poor, or very poor?	1. Excellent 2. Good 3. Poor 4. Very Poor
Q.13.7: How often, if ever, does the state of your health prevent you from doing daily work?	1. Always 2. Some of the time 3. Hardly ever 4. Never
Q13.8: How often, if ever, does the state of your health prevent you from taking part in your usual social activities?	1. Always 2. Some of the time 3. Hardly ever 4. Never
Q13.9: Over the past two weeks, how many days have you been bothered by little interest or pleasure in doing things?	1. Not at all 2. A few days 3. More than half the days
13.10: Over the past two weeks, how many days have you been bothered by feeling down, depressed or hopeless?	1. Not at all 2. A few days 3. More than half the days

Summary Statistic of need for female observations

Variable	Sample (n)	Mean	Std. dev.	Min	Max
Black	6,027	.846524	.3604757	0	1
Age	6,027	41.75925	15.43212	18	80
Education	6,027	11.2079	2.996582	0	17
Employed	6,027	.3774681	.4847937	0	1
Wealth Index	6,027	.0017455	.9838494	-4.098453	1.276255
Married	6,027	.5800564	.4935903	0	1
IPV	6,027	.0467894	.2112051	0	1

Summary Statistic of need for male observations

Variable	Sample (n)	Mean	Std. dev.	Min	Max
Black	5,257	.8310824	.3747148	0	1
Age	5,257	40.5604	14.90612	18	80
Education	5,257	11.463	2.92014	0	17
employed	5,257	.5583032	.4966363	0	1
Wealth index	5,257	-.0451014	1.050949	-4.129398	1.306193
Married	5,257	.6638767	.4724266	0	1
IPV	5,257	.0152178	.1224299	0	1

Summary Statistic of unmet need for female observations

Variable	Sample (n)	Mean	Std. dev.	Min	Max
Black	2,323	.9001291	.2998923	0	1
Age	2,323	45.02325	16.31897	18	80
Education	2,323	10.49978	3.252691	0	17
Employed	2,323	.3086526	.4620369	0	1
Wealth Index	2,323	-.0472369	.963935	-4.098453	1.230636
Social Capital Index	2,323	.0858535	.9702188	-1.01536	4.055663
Community Trust	2,323	.3366337	.4726601	0	1
Disempowered	2,323	.3379251	.4731047	0	1
Household Size	2,323	4.028412	2.414795	1	22
Married	2,323	.5200172	.4997067	0	1
IPV	2,323	.0551012	.2282267	0	1
IPV Support	2,323	.5738269	.494626	0	1

Summary Statistic of unmet need for female observations

Variable	Sample (n)	Mean	Std. dev.	Min	Max
Black	1,552	.878866	.3263881	0	1
Age	1,552	43.08119	15.97027	18	80
Education	1,552	10.7893	3.021959	0	17
Employed	1,552	.4490979	.4975626	0	1
Wealth Index	1,552	-.1431432	1.073364	-4.129066	1.248
Social Capital Index	1,552	.0023728	1.057034	-1.01536	4.055663
Community Trust	1,552	.3537371	.4782829	0	1
Disempowered	1,552	.3460052	.4758482	0	1
Household Size	1,552	3.163015	2.397312	1	24
Married	1,552	.6456186	.4784796	0	1
IPV	1,552	.0251289	.1565669	0	1
IPV Support	1,552	.5457474	.4980633	0	1

PHQ-2 mental health Scoring

	Not at all	Several days	More than half the days	Nearly every day
Lost interest or had little pleasure in doing things	0	1	2	3
Felt down, depressed or hopeless	0	1	2	3

Total score = sum of two items
PHQ-2 score equal or greater than 3 is suggestive of elevated symptoms of depression