



Sex, gender and NCDs

Brief 3

Authors:

Percept Actuaries and Consultants

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Research briefs on non-communicable diseases in South Africa

We have developed a series of briefs aiming to explain, explore and quantify the burden of non-communicable diseases (NCDs) in South Africa. Throughout the briefs, we draw together both existing quantitative data as well as emerging qualitative data. The primary qualitative data presented in the form of vignettes, has been collected by Dr Beth Vale, through in-depth ethnographic research.

These briefs are timely, given the rising global burden, and particularly the rising burden in low- and middle-income countries (LMICs), of NCDs. Given South Africa's high prevalence of HIV, there has also been a recent focus on the link between HIV and NCDs as the population living with HIV grow increasingly older with the successful uptake of antiretrovirals. An ageing population is more at risk for NCDs as we will explain in our briefs. As we move towards universal health coverage (UHC) it is imperative that we understand the needs of our population now and how these may change going forward. We have produced twelve briefs in this series.

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- Actuarial Society of South Africa (ASSA): ASSA has an interest in being part of the development of high-quality evidence to support resource allocation and decision-making and the interplay between the supply and demand sides of the health system.
- RGA Reinsurance Company of South Africa Ltd (RGA): RGA has an interest in the ways in which life insurance can be responsive to the changing burden of disease and the ways in which we can use data to drive decision-making.

Take-home messages

- The female sex has more risk factors for NCDs given their genetic and hormonal make-up.
- Gendered roles prevent men from seeking healthcare and prevent women from engaging in physical activity/self-care. Both have negative impacts on health outcomes and disease progression.
- The mix of sex and gender make prevention and disease management a complex endeavour: both are important considerations for planning and policy-making.
- Household survey data shows that both men and women perceived their health status to be far better than what objective measures showed. This shows the urgent need for community based screening and testing for NCDs.
- Household survey data showed that more women reported never doing any physical activity and fell into the obese category as per BMI calculations.
- Within the medical scheme population, the odds of being male with Hypertension was 1.17 times higher than the odds of being female with Hypertension. The odds of being male with Diabetes was 1.38 times higher compared to the odds of being female with Diabetes. Both results were adjusted for age and were statistically significant.



Introduction

Non-communicable diseases (NCDs) have become prominent causes of death globally, for both men and women.¹ This brief sets out to describe the relationships between NCDs and sex, and NCDs and gender.

Sex is defined by the biological differences between men and women, specifically genetics and hormone levels; while gender relates to *“the continuum of complex psychosocial self-perceptions, attitudes, and expectations people have about members of both sexes.”*² Gender is therefore ultimately about the way a person identifies, and the roles that are imposed upon that person as a result. Inequity is intersectional; gender, race, socio-economic status, and physical ability (to name a few) all contribute simultaneously to a person’s experience in and of the world. Within a healthcare setting, gender has been shown to impact access to services and health information and this is no doubt complicated by South Africa’s deep disparities.³ Gender also has a role to play in the types of risks a person is exposed to.⁴ Therefore, it is important to consider both sex and gender when crafting health policy.

Biological differences (sex) and gender norms do appear to have an impact on the type, onset and severity of NCDs.⁵ Data has shown sex- as well as gender-related differences in risk factors, disease progression, treatment and outcomes for the population living with NCDs.⁶

When talking about the sexes, we’ll refer to females and males. When speaking of the genders, we’ll use the terms women and men. We acknowledge the fact that both sex and gender are non-binary and for those who identify as something other than the two we have mentioned, health access and outcomes are likely to also differ.⁷ We don’t delve into this in this brief, though it remains an important area for further research.

Data and methods

We use two broad quantitative data sets for this paper, household survey data and Council for Medical Schemes (CMS) data. Survey data includes General Household Survey (GHS) data, Demographic and Health Survey (DHS) data and National Income Dynamics Study (NiDS) data. When we analysed the quantitative datasets for comparison against one another, we standardised based on age, given the relationship between age and NCDs (see brief 2). We do this standardisation against the Statistics South Africa mid-year population estimates for 2018 for all datasets for fair comparison.

Household survey data gives us insight into the experience of NCDs in communities. The household survey does ask for sex as an input, but we do not know whether participants (or the survey enumerator) completed their surveys in terms of their biology (sex) or gender (societal role/how they identify). For the sake of ease, we will assume these two align, helping us to understand the data more richly, based on the interplay between sex and gender that we discuss in this brief.

For the survey data, we use statistical methods to present our data. Statistical significance is a mathematical approach used to determine whether something has happened by chance or is truly as a result of a particular factor (in our case, sex, and gender). Our household survey analysis identifies **statistically significant** sex- and gender-based differences, both in prevalence of NCD risk factors, as well as NCDs themselves.¹ We use asterisks to denote the extent of the significance for the graphs we present:

* = $p < 0.1$: statistically marginally significant

¹ As mentioned, we have assumed gender and sex align for the purpose of analysing the household survey. Therefore, we refer to men and women in this section unless there is an explicit relationship to sex alone.



** = $p < 0.05$: statistically significant

*** = $p < 0.01$: statistically highly significant

The CMS aggregates data from all medical schemes in South Africa, including demographic data as well as how the beneficiaries utilised health services. The data is consolidated across the schemes to provide a total medical scheme population picture. We have used the category of those with **at least one claim** during the 2017 calendar year for our data analysis. There are many reasons why a member may choose to not enroll in a disease management programme, which can often result in that data being an underestimate. Therefore, at least one claim for a condition provides a richer picture of the prevalence. As with the survey data, there is not a separate entry for gender and sex, and therefore we have assumed they align and used evidence of how sex and gender interact to interpret the findings.

For the CMS data, we ran a test of association using odds ratios on Stata for demographic factors (age and sex) associated with Hypertension and Diabetes Mellitus Type II, respectively. The results discussed in this brief were also tested for statistical significance.

We also use qualitative data in this brief, based on primary data collection in one pocket of South Africa, to marry the quantitative findings to the reality on the ground.

Lastly, when researchers study NCDs, obesity is one of the key risk factors discussed. The current accepted measure of obesity is the Body Mass Index (BMI), and is what is used in the survey data. However, many scientists have spoken about the shortcomings of the tool. As an indirect measure, BMI does not account for age, sex, bone structure, fat distribution or muscle mass, all of which affect body fat measurements.⁸ For example, athletes might have relatively high BMIs owing to high muscle mass and hence be classified as overweight, when they actually have low body fat.⁸ BMI can also over- and under-estimate actual body fat measures in terms of age and sex. With age comes decreasing muscle mass and increasing body fat, yet these changes may not be reflected in overall weight and so BMI will not be truly representative.⁸ Furthermore, the association between BMI and body fat differs between females and males (particularly post-menopausal women), oftentimes leading to overestimation of obesity in women, as a result of this unaccounted for sex difference.⁹ Therefore, the BMI results of men and women may not be perfectly comparable. Therefore, although BMI is a simple and low-cost tool, it remains very crude and is quickly falling out of favour. Where we discuss BMI findings, we ask readers to be mindful of the tool's shortcomings.

Biology: the link between NCDs and sex

Differences in the types of NCDs experienced by males and females can be partially explained by biological differences, which affect the development and manifestation of NCDs and their risk factors. These biological differences are both genetic and hormonal in nature.

There is a clear link between a **predisposition to weight gain** in females and the risk this presents for NCD onset. Studies have found that poor nutrition in childhood is positively associated with obesity in adult females, but not in adult males.¹⁰ Females have also been found to be more overweight at older ages (compared to males who are more likely to be overweight when young) owing to hormonal changes.¹¹ Furthermore, the correlation between **Diabetes and obesity** is more prominent in females.¹¹ However, females also experience the **positive effects** of regular exercise and reduced alcohol consumption, more strongly than males.¹²

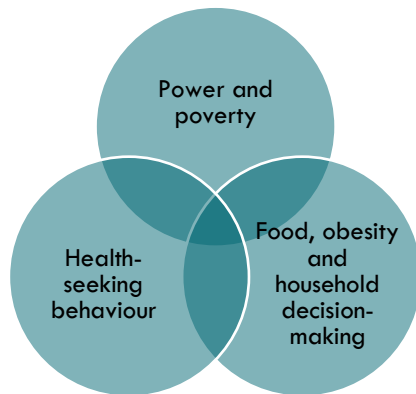
Evidence supports that the association between Hypertension and Diabetes and Hypertension and cardiac disease is stronger in females than males, effectively making **Hypertension** more risky for females given its association with diabetic and cardiac co-morbidities.¹² Importantly, the prevalence of Hypertension in females spikes significantly **post-menopause** because of the hormonal changes¹² it brings.¹³ Research shows that males are more likely to be hypertensive than females at younger ages,



which is why they are more likely to experience cardiac disease at younger ages than females.¹⁴ As the South African population ages, we expect to see the number of female hypertensives increase.¹³

Because females live longer, and are therefore more likely to age, they are biologically at greater risk of NCDs. We have also shown that females tend to have higher risk factors as a result of biological sex factors. Therefore, age- and sex-standardization of NCD prevalence rates is vital to forecast the future burden of disease.

Collision of sex and gender



In this section, we focus on the inter-relationship between sex and gender, because for most people, their sex and gender align (they identify with the gender associated with their biological sex), and therefore the impact of NCDs is compounded by both factors.

Power and poverty: women-headed households are larger and poorer

Socially constructed power differentials favour men. This translates to higher levels of domestic

violence against women and is of particular pertinence in South Africa, where rates of femicide and rape are extremely high.¹⁵ These high rates of violence against women place them at increased risk for mental health problems.¹⁶

Women receive a lower income on average than men (**gender-poverty gap**) in South Africa¹⁷, often leaving women more affected by poverty. As a result, women-headed households are 1.95 times as likely to have per capita income below the upper-bound poverty line (R1,227 per month, as per StatsSA 2019), compared to men-headed households. Put in another way, 31.4% of women-headed households have per capita income below the upper-bound poverty line, compared to 16.1% of male headed households. This is due in part to the unemployment rate in women as compared to men; women-headed households are two times more likely to have no employed members, compared to men-headed households (39.5% of female headed households have no employed members, compared to 19.9% of male headed households).¹⁸ Compounding this impoverishment, women-headed households tend to have more dependents in the home.¹⁸ Data from the GHS shows that the average number of household members in women-headed households is 3.6, compared to 3.0 in men-headed households.¹⁸ Women-headed households are also 1.8 times as likely to have greater than six household members, compared to men-headed households.¹⁸ The impact of this is that women are often caring for more people, with less money- exacerbating stress and making them more likely to suffer from mental health issues such as depression and anxiety and influencing the food choices they are able to make.^{16,19} According to CES-10 scores (Likert-scale questions to ascertain the likelihood of someone experiencing depression) in the NiDS survey, women are slightly more likely to show depression-related symptoms than men are: 4.1% as compared to 3.5% in men.²⁰

Food, obesity, and household decision-making: *'they're going to complain...but you must explain'*

As the more-likely household cooks, women have a powerful role in deciding family diets, which is strengthened if they are also the household heads. South African homes are increasingly headed by women:²¹ Today, about 38% of households are female-headed,²² either because there are no adult men



residing there, or because women – whether as social grant beneficiaries or wage earners – are the primary breadwinners. Research suggests that as women's spending power increases, so too does their decision-making power within households: women who receive child support grants, for example, find that receiving the grant gives them greater say in how family resources are spent.²³

Even though women might have a significant say in food choices, these choices are also heavily constrained. In poorer households, dietary decision-making is more likely to be driven by what is affordable, filling, and long-lasting, rather than what is healthy (Vignette 1).

Vignette 1: The household pot

In May 2019, I met with two nurses, who work in the General Ward at one of the Karoo's municipal hospitals. Both nurses had been residents of the region for most of their lives and lived in the same neighbourhoods as their patients.

When reflecting on the Karoo's chronic illness burden, they offered this observation about local food practice: 'If you look at the standard household', they said, 'it's a grandmother, her children – or perhaps her children are working away from home – and her grandchildren. People also struggle to get housing, so there are many people in one home. And not everyone has contributed [monetarily] to the pot. So, if you haven't contributed to the pot, you take what you can get. You can't decide what to eat.'

During one consultation in August 2019, a woman in her 50's was discussing her eating habits with the dietitian. She is taking chronic medication for cholesterol and Hypertension, Disprin for her heart, as well as diuretics and iron supplements to help address kidney failure. 'I cook for the kids at home, but I eat very little', she says. 'I dish the plate, but I don't want to eat it'. 'How old are the kids?' the dietitian asked. 'In primary school', the woman replied. The dietitian nodded. 'They're going to complain about having tasteless food (without salt, stock or curry powder), but you must explain.'

Women are often cooking based on the tastes and interests of those they are caring for, including children and the elderly. In this context, the needs of adult men may not be primary. This is especially true if these men are migrant workers, who are regularly away from home. In the Karoo, the search for work has often taken job-seekers to urban metros, especially as farms continue to shed labour.

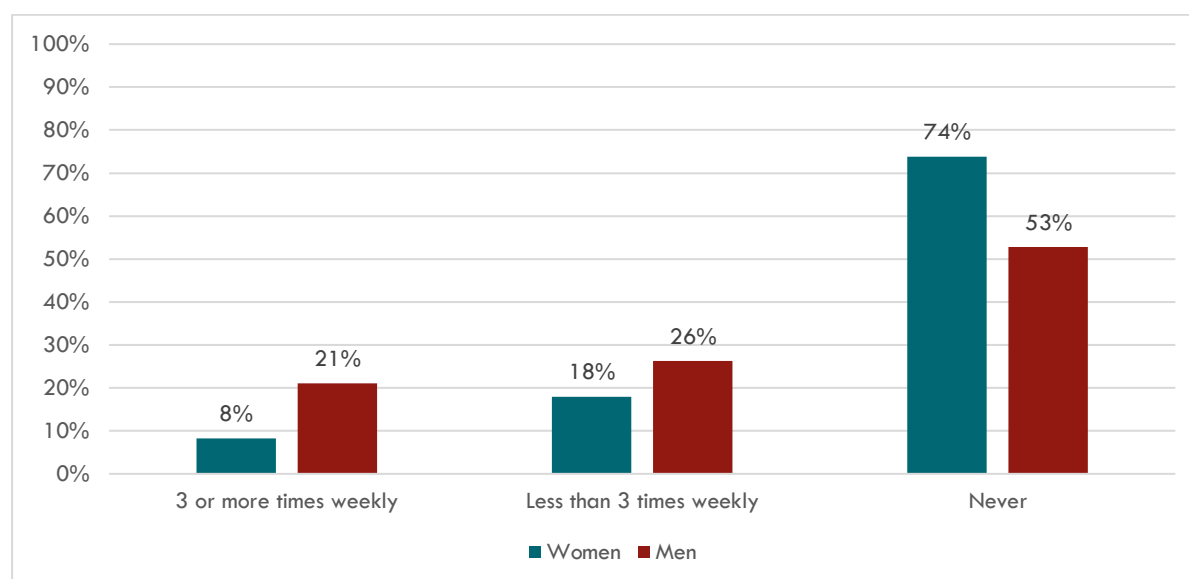
It's not only migrant working men that might have limited say in household food choices: Unemployed men, even those living at home, might also be constrained in their ability to shape their family's diet. With poorer access to social grants and no wage income, it becomes nearly impossible for them to contribute financially to the household pot.

Because gender often informs roles and responsibilities in the home, it also shapes the various ways in which both men and women might be able to participate (or not) in family food choices.

Gendered roles typically entail men working, while **women** (who may also be working outside the home) **perform household and caregiving duties**. This means that women often have less leisure time available to engage in physical activity or self-care, despite females being more prone to weight gain as discussed in section 1.²⁴ In South Africa, 45.2% of women are **not physically active**, compared to 27.9% of men²⁵; in line with global trends of higher levels of physical inactivity in women.²⁴ Reasons for this include amount of available leisure time, as well as the perceptions of what physical activity is appropriate for women – both are related to gender rather than sex. Additionally, safety concerns for women, particularly in the South African context, often prevent outdoor activity. This is exacerbated by gyms and other exercise groups/places, which may present safer environments for women, being unaffordable. Household survey data supports the claim that physical activity is linked to gender in South Africa, illustrating that women are more likely to do no physical activity (see Figure).

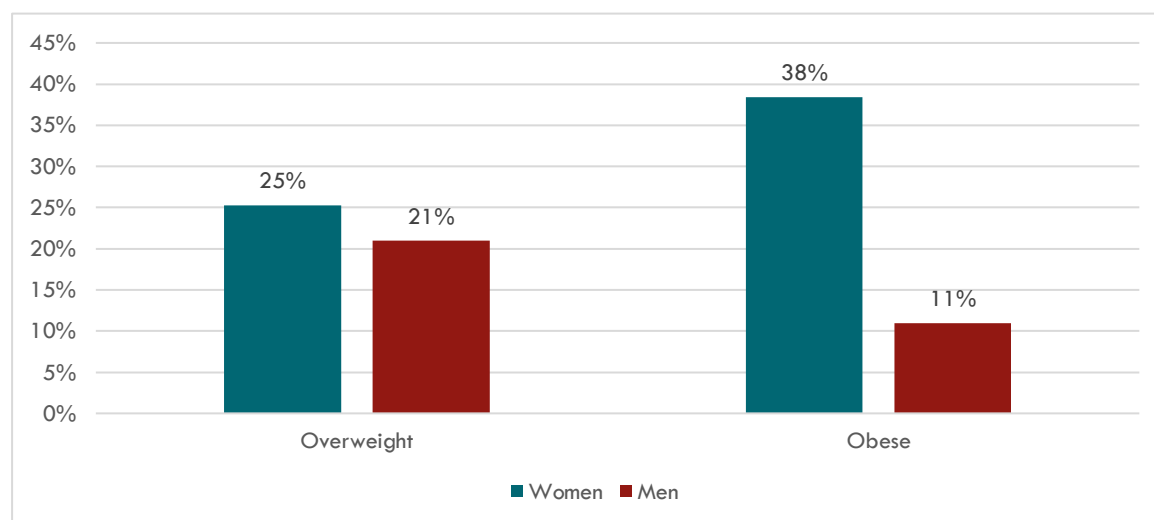


Figure 1: How often do you engage in physical activity² * (NiDS 2017²⁰, own analysis)**



It is therefore unsurprising that **obesity³ is on the rise** in South Africa, given the intersection of poverty, gender and sex-related risks.²⁶ The gender discrepancy in obesity prevalence in South Africa is in line with global trends, where women are more likely to be obese than men, particularly in lower- and middle- income countries.²⁷ In a study conducted by the World Health Organization, South Africa ranked 44th out of 192 countries in terms of the proportion of the population labeled obese (as per BMI).²⁸ For comparison, the US, widely considered one of the more obese nations, ranked 19th out of 192 countries.²⁸ Figure shows that 64% of South African women are classified as overweight or obese (using BMI),⁴ double the rate of South African men classified as overweight or obese (32%).²⁰

Figure 2: Proportion falling into overweight and obese categories⁵* NiDS 2017²⁰, own analysis)**



² Age standardised

³ We explain in the methods section why the term 'obesity' is not always useful when it is determined through the body mass index measurement.

⁴ Overweight: BMI between 25-30 and Obese: BMI >30

⁵ Age standardised



The gap between obesity in men and women is also larger in countries with higher levels of gender inequality, such as South Africa.¹¹ This is as a result of many interacting factors, including that women are more prone to poverty, which in turn can lead to unhealthy diets which can result in obesity. Furthermore, the association between under-nutrition in childhood and obesity in adulthood manifests more commonly in women, who are more prone to be subject to malnourishment in childhood as a result of patriarchal structures.¹¹ This gender difference, coupled with the sex predisposition we discussed in section 1, makes women at high risk for obesity and the associated NCDs.

However, it is not only women who are at risk. **Many men find themselves working in jobs that are physically demanding.** This has severe nutritional impacts, since the food-types which are quick to eat, affordable and readily available, are often high-calorie meals to sustain energy. Furthermore, given the gendered nature of cooking, if men are working far from home, they are less likely to eat home-cooked meals, and may rather opt for ready-made food that they can buy (Vignette 2).

Vignette 2: Gendered work and food

In this part of the country, those men lucky enough to find work are often on the move, working short-term contracts on farms or municipal projects. In the early mornings, men dressed in overalls are often gathered on the side of the Karoo's main roads, hoping to be collected for a day's labour.

To work on the move has implications for how men eat during the day. Packed home-cooked meals are a rarity; instead, meals must be bought on-the-go.

In February 2019, a man walked into the small-town Karoo pharmacy where I had been observing. He was there to collect his heart medication. 'And what are you eating?' the pharmacist asked, searching for his prescription. The man explained that he worked twelve-hour shifts. At lunch time, he and the other men shared Coca-Cola, chips, and white bread. 'You're killing yourself', the pharmacist said, looking at him with concern. But, for this man, a change in daily eating habits would have been difficult to achieve. When would he have time to prepare food? And if he were to opt for a different meal, what would that mean for the practice of sharing between workers? Food, after all, is as much a social question as a health question. 'When I get a wife, I'll do better', he tells the pharmacist, perhaps imagining that his wife would be able to assist with the cooking. The pharmacist leans over to hand him his medication. 'You have to make it till then', she says.

Health seeking behaviour: 'We mostly see women and children'

Gender plays a large role in the health status of men- from the foods they choose to eat while working to the way that they interact with the health system. It is well-researched that men tend to delay seeking out care due to perceptions of masculinity (Vignette 3).²⁹



Vignette 3: Masculinity & Health Seeking

'When you have Diabetes, the first thing that comes to mind is: "What am I going to lose? Is it a leg? Is it an arm? Is it my eyesight?"

It was December 2019 and I was interviewing a diabetic amputee, who was also a pastor. 'Tell me about when you were first diagnosed?' I asked him. 'I took out life insurance and was asked to go to the doctor to do some tests. When it came to checking the sugar – then it was 22. He looked at me and said, "You must go to a hospital right now" [...] He put me straight on insulin'. Both his parents were diabetic, but he said he had never screened.

At first, the newly-diagnosed pastor had to confront commonly-held beliefs that sickness is weakness. Sometimes to be a pastor — people have it in their minds, that a pastor can't get sick. They would wonder 'what did you do?' Indeed, taking on a chronic illness identity often runs counter to hegemonic masculinity,¹ which expects men to be strong and in-control. Receiving instruction on how to eat, cook, and take medication can be seen as threatening to these masculine ideals.

In addition, when men are the sole providers in the family, there is often no time to visit clinics or seek medical care (see Vignette 4). Given this reality, many men are unaware of any medical conditions they may have, which puts them at greater risk for adverse health outcomes.

Vignette 4: Gendered work and health-seeking

In December of 2019, I spent a day following the mobile clinic, as it travelled from one farm to the next, delivering medication to workers. Plumes of dust billowed out from behind the boxy white van as we travelled the twenty kilometres of dirt road to reach our first stop, crossing dry riverbeds where troughs had been positioned for animals to drink. The Karoo is always desert, but now even the hardiest of plants were dying. Animals were surviving on feed, which meant someone had to feed them. Workers' hours were extended into early mornings and late evenings.

We parked the van in front of a row of mud-brown workers' cottages, in a rare strip of tree shade. Multi-coloured laundry had been hung out to dry in the hot sun. The children were first to see us. Then came the women, stepping out from their various houses, or climbing the hill from the farm owner's residence.

'We mostly see women and children', Sister Kanemeyer (pseudonym) explained, 'because the men are all working.' While the women were busy with domestic work, the men were feeding animals, tending to fences, or nurturing pastures. This meant they were not only less likely to attend the physical clinic in town but were also often not available to receive mobile services.

Both sex and gender act as protective for women when it comes to accessing healthcare. They make use of health services during pregnancy (sex) and in caring for their children (gender), which makes it easier for healthcare providers to monitor and take care of women's health, given their regular contact with the system. However, providers often underestimate women's risk for NCDs. For example, women with cardiac disease tend to experience worse clinical outcomes than men, including an increased mortality rate.³⁰ It is suggested that these poor outcomes are largely a result of under diagnosis and treatment, because of the misconception that cardiac disease is not a high risk in females.¹² This would make women less likely to attribute early signs and symptoms to cardiac disease and may make providers less inclined to run cardiac-related tests on women. This mix has a negative impact on health outcomes for women. The analysis of the medical scheme population shows that the odds of being male with Hypertension was 1.17 times higher than the odds of being female with Hypertension***, however this could be related to gender perceptions of cardiac disease (for which Hypertension is a risk factor) as discussed above.



The South African NCD picture: what we already know

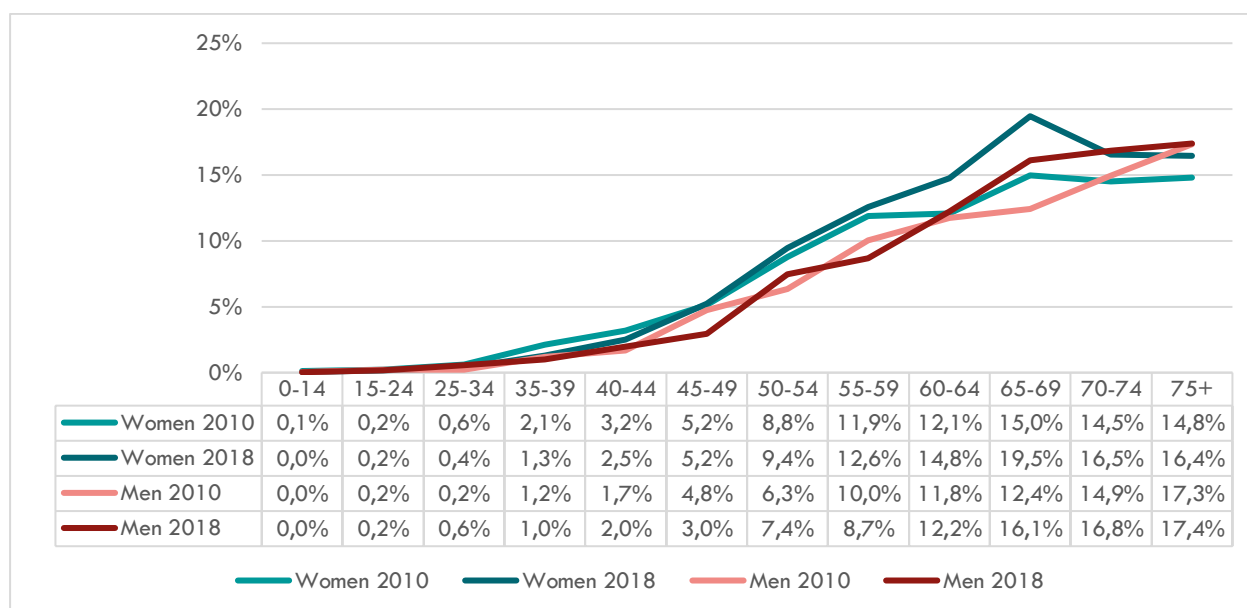
There is not detailed data on the prevalence and incidence of NCDs in the public sector population- one of the main instigators for our work in this regard. Therefore, we rely on survey data and CMS data to try and understand the status quo.

The survey data, as discussed, includes both self-reported and objective measures of disease. Self-reported data gives some insight into how people perceive their well-being and brings to life the impact of sex and gender on this.

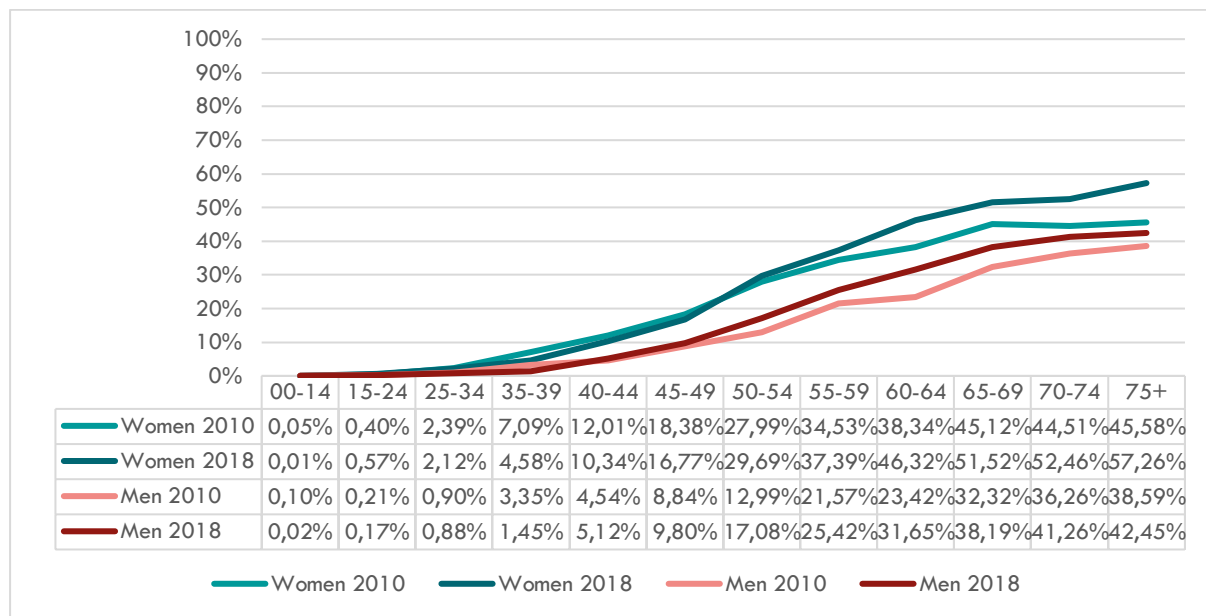
Self-reported data: perceptions of risk

When 2010 and 2018 self-reported rates of Diabetes are age-standardized to reflect 2018 mid-year population estimates as per StatsSA, self-reported prevalence over all ages increased from 2.8% to 2.9% for women respondents. Given the low prevalence, however, a 0.1% on the existing 2.8% prevalence reflects a proportionate increase of 3.6%. For men, self-reported prevalence increased from 2.3% to 2.4%, resulting in a proportionate increase of 4.3% over the 10-year period. For women, the increased perception of ill-health between 2010 and 2018 occurs from age 50, whereas for men the increase is seen after 60 years.

Figure 3: Self-reported Diabetes prevalence by age and gender, 2010 vs 2018 (GHS 2010³¹, GHS 2018¹⁸, own analysis)



Self-reported Hypertension prevalence increased by 5.5% (from 8.7% to 9.2%) and 14% (from 5.2% to 5.9%) in women and men, respectively (see Figure). For men, the increased perception of Hypertension between 2010 and 2018 occurs from age 50, younger than what was reported for Diabetes. This could be due to the gendered association between Hypertension and men, that is not as strong for Diabetes.


Figure 4: Self-reported Hypertension by age and gender (GHS 2010, GHS 2018, own analysis)


According to self-reported responses in the GHS, DHS and NiDS, women have higher prevalence for most NCDs: Diabetes, heart attacks/ cardiac disease, cancer, stroke, and asthma, as well as Hypertension and high cholesterol. However, self-reported rates are not always reliable when disaggregated by sex, because of the gendered perceptions that may influence reporting and health seeking in men. This insight is relevant for insurance underwriting where self-declarations of health may be biased by differences in health-seeking behavior.

It is helpful to know how people perceive their health, but objective measures of health status remain crucial in managing and controlling NCD onset and progression.

Objective measures: Survey vs CMS

The survey data allows us to analyse self-reported prevalence against actual measures using medical equipment (like blood pressure machines and blood sugar readings). This allows us to see whether people's perceptions match reality. We have further broken down the survey data into those who reported to be on a medical scheme vs those who did not. We have then included in the same graphs based on the CMS data for the medical scheme population, which includes data for everyone who had at least one claim related to the NCD under investigation. While we would expect the survey objective measures and the CMS data to align, we see that it does not. Some of the reasons driving this difference could be:

- Hypertension results could be skewed by the stress induced when the survey enumerator was conducting the survey, resulting in a higher than normal reading (so-called "white-coat hypertension");
- Survey enumerators picking up cases per chance, before the person is experiencing any symptoms that may encourage them to seek out care;
- Gender-related factors regarding health-seeking behavior;
- Medical scheme members not claiming for their medication costs because their benefit plans do not cover medication and as such there is no reason to do so.

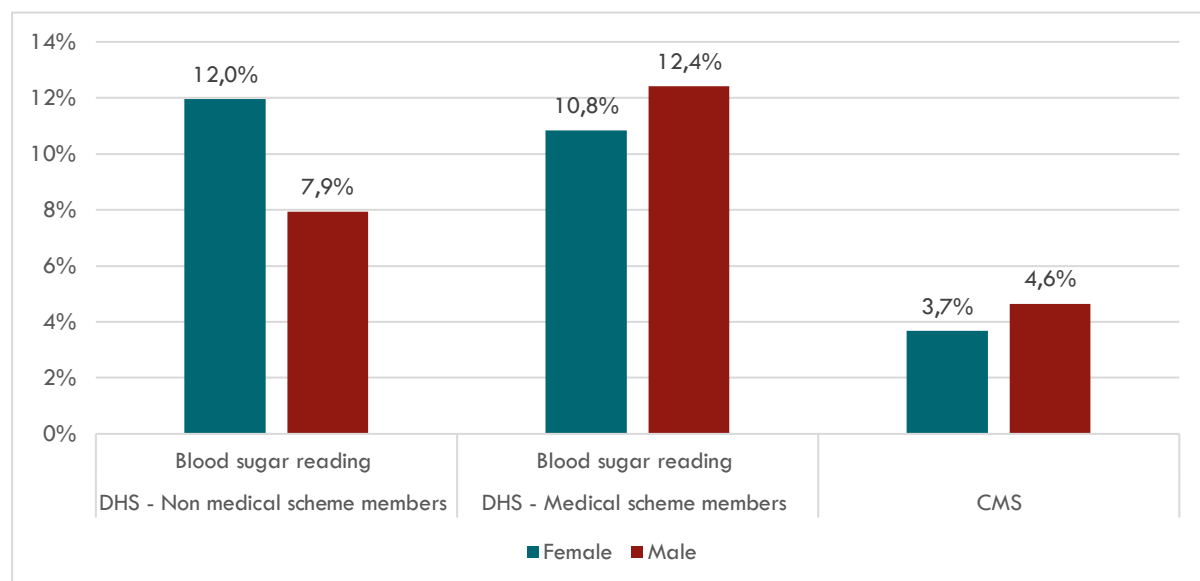
The age standardised (to the same StatsSA population) prevalence of Diabetes in the private sector is 4.6% for men and 3.7% for women. For the survey respondents who were on medical schemes, objective

measures showed 12.4% prevalence of Diabetes for men and 10.8% for women and - more than double the CMS rates. The CMS data showed that the odds of being male with Diabetes was 1.38 times higher compared to the odds of being female with Diabetes when adjusted for age***.

However, both the objective measures from survey data and CMS data are substantially above the self-reported prevalence of 2.4% in men and 2.9% in women in the GHS. This indicates that people perceive their health to be better than it is in reality, which makes them less likely to access care.

The gender differences in blood sugar readings between non-medical scheme members and medical scheme members are notable – this may be related to the discussion earlier about Diabetes risk factors, poverty and women. Medical scheme cover acts as a proxy for socio-economic status.

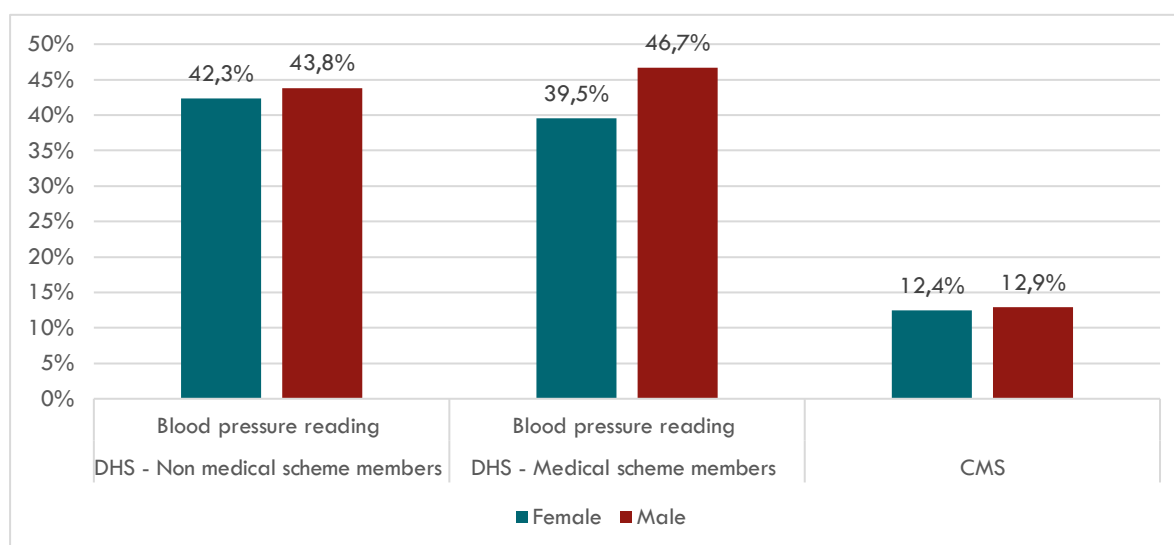
Figure 5: Diabetes prevalence by age, gender and medical scheme enrolment (DHS³², CMS³³)



Similarly, the prevalence of Hypertension in the private sector is 12.9% in men and 12.4% in women, compared to objective measures of medical scheme members, which shows 46.7% prevalence in men and 39.5% in women. The survey data shows little variation between scheme and non-scheme members. Once again, the self-reported rates are far below the objective measures and CMS data. Given that Hypertension can often occur without signs or symptoms, and the reality that people perceive themselves as well, this clearly calls for the need for community based screening and case finding.

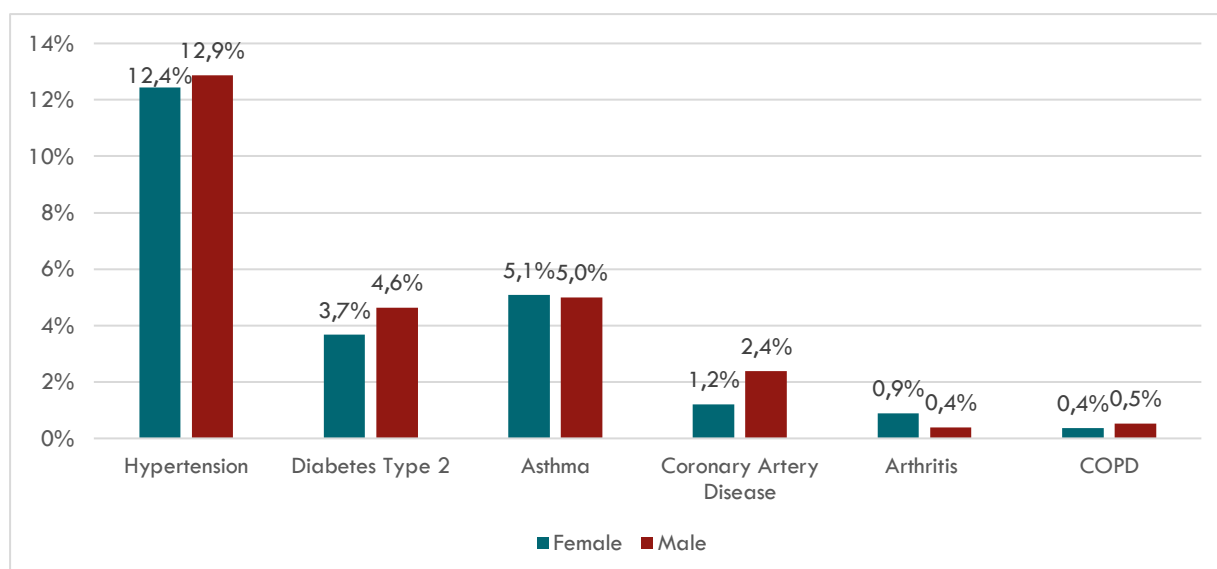


Figure 6: Hypertension by prevalence by age, gender and medical scheme enrolment (DHS³², CMS³³)



The CMS data gives us more objective data about the prevalence of many more NCDs than what is captured by survey data, because schemes collect that data primarily for billing purposes. The data allows us to monitor trends and provides insight into the potential burden of disease for NCDs in the public sector population. Our last figure shows the proportion of medical scheme members who claimed at least once in the period for a particular NCD condition. Men predominate in Hypertension, Diabetes and Coronary Artery disease.

Figure 7: Beneficiaries with at least one claim for NCDs in 2017 (CMS³³)



Conclusion

Women have more risk factors due to the collision of sex and gender for NCDs. Men are often unable or unwilling to seek out healthcare when needed, making them a key intervention group for health promotion and prevention messaging. Where resources are limited, we need to ensure our health promotion and prevention efforts are targeting the most vulnerable, which requires targeted policy for particular NCDs. In South African society, which tends to still be patriarchal, clinging to normative gender roles, sex and gender are an important lens for NCD policy making.



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