4 Non-communicable diseases

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The human, social and economic burdens associated with non-communicable diseases (NCDs) have been rising globally, and at present NCDs are the leading cause of death in most countries and the main driver of disability worldwide.\textsuperscript{a,b}

Previously, NCDs were associated with affluence and late stages of demographic transition. Currently, NCDs are disproportionately and increasingly affecting low- and middle-income countries, with policies, legislation, services and infrastructure often struggling to keep pace with the rapidly growing number of people affected.\textsuperscript{c} In sub-Saharan Africa, the relative contribution of NCDs to the total burden of disease (years of life lost) is predicted to reach 35.9% by 2040, compared with 53.6% for communicable diseases together with maternal, perinatal and nutritional conditions.\textsuperscript{d}

South Africa has one of the highest NCD prevalence rates in sub-Saharan Africa. From 2009, the burden of disease associated with NCDs has exceeded the burden from communicable diseases in terms of years of life lost and disability-adjusted life years. Despite the persistent human immunodeficiency virus (HIV) epidemic, the number of NCD-related deaths has surpassed the number of deaths due to communicable diseases together with maternal, perinatal and nutritional conditions.\textsuperscript{e,f} Recent mortality data confirm this trend: in 2016, 57.5% of the 456,612 deaths recorded in South Africa were due to NCDs, compared with 31.3% due to communicable diseases together with maternal, perinatal and nutritional conditions and HIV/ Acquired Immune Deficiency Syndrome (AIDS)), and 11.2% due to external causes (e.g. accidents, homicide and suicide). This amounts to an average 1.7% annual increase in the proportion of NCD-related deaths over the total number of deaths from 2009.\textsuperscript{g} Many patients with HIV/AIDS and tuberculosis (TB) also experience NCDs, and a significant number of maternal deaths are due to hypertension.

Non-communicable diseases include a large number of conditions, broadly characterised by their non-infectious nature, long duration, and generally slow progression. Cardiovascular diseases, hypertension, chronic obstructive pulmonary disorders, diabetes, cancers and mental disorders account for a large proportion of the burden associated with NCDs. The seven indicators presented in this chapter aim to provide some indication of the distribution and temporal trends of these categories of diseases in the country. The seven indicators are:

✦ Prevalence of non-raised blood pressure
✦ Prevalence of obesity and overweight
✦ Prevalence of diabetes
✦ Treatment coverage for diabetes
✦ Cervical cancer screening coverage
✦ Mental disorders treatment rate new
✦ Mental health separation rate.

Age-standardised prevalence of non-raised blood pressure, treatment coverage for diabetes, and cervical cancer screening coverage are three of the four indicators that define the NCD management section of the Universal Health Coverage (UHC) index proposed in 2018 by Hogan and colleagues\textsuperscript{h} to track progress in the achievement of Goal 3.8 of the Sustainable Development Goals (SDGs).\textsuperscript{i} The prevalence of non-raised blood pressure is considered a proxy for both effective health promotion and effective medical services in the prevention of cardiovascular disease. The treatment coverage for diabetes is a direct indicator of diabetes management, which in the last available estimates of the UHC index for South Africa, replaces the proxy indicator used in Hogan’s original proposal (mean fasting plasma glucose).\textsuperscript{a} Cervical cancer treatment coverage is used as a proxy for cancer detection and treatment.\textsuperscript{g}


\textsuperscript{g} Ibidem.

\textsuperscript{h} Hogan DR, Stevens GA, Hosseinpoor AR, Boerma T. Monitoring universal health coverage within the Sustainable Development Goals: development and baseline data for an index of essential health services. Lancet Glob Health. 2018;6(2):e152-e168.

Section A: Non-communicable diseases

The estimates reported in this chapter were affected by lack of primary data of adequate quality, especially the following: uncertainty regarding the population data used as denominators for some indicators; incompleteness of facility data sourced from the District Health Information Software (DHIS); and limitation of the survey data used for blood pressure, overweight and diabetes indicators.

Non-raised blood pressure and overweight and obesity prevalence were estimated directly from survey data and may be imperfectly representative due to small sample sizes in some districts. Multiple surveys in the period of interest increased the reliability of the trend estimates, but all datasets used here originated from the same study (the National Income Dynamics Study), and independently collected data are needed to confirm or dispute the results.

The modelling techniques applied to overcome the lack of data on diabetes prevalence and treatment coverage were certainly not free from problems, and consequently some of the local-level estimates seem unlikely. The models developed for this chapter were based on a series of assumptions which, although plausible and supported by reliable evidence, are subject to a large degree of uncertainty. The actual numerical values of the indicators reported in the tables and graphs must therefore be interpreted with caution. This is especially true for local estimates in small districts (in terms of size of the population and, consequently, number of people selected in the sample) where the uncertainty tends to be higher, and for treatment coverage estimates that rely on self-reported treatment status.

Prevalence of non-raised blood pressure

Raised blood pressure, i.e. systolic blood pressure (SBP) ≥ 140 mmHg and/or diastolic blood pressure (DBP) ≥ 90 mmHg, is a major risk factor for cardiovascular disease and many other pathologies (including renal impairment, retinal haemorrhage and visual impairment). Blood pressure levels are directly and strongly correlated with the risk of stroke and coronary heart disease. Treating systolic and diastolic blood pressure until they are less than 140/90 mmHg is associated with a significant reduction in cardiovascular complications.

The indicator discussed here, namely prevalence of non-raised blood pressure, is defined as the percentage of adults (15 years and older) in the general population with SBP <140 mmHg and DBP <90 mmHg.

National overview

In 2017, the age-standardised prevalence of non-raised blood pressure in the general adult population was 79.3%. In line with the consistently increasing trend observed from at least 2008 (Figure 1), this value was higher than the estimate for 2015, albeit only marginally.

Figure 1: National age-standardised prevalence of non-raised blood pressure among adults (15 years and older), 2008 - 2017

Source: HST estimates from the National Income Dynamics Study data.


l Note that the indicator does not distinguish between individuals whose blood pressure is naturally below the threshold and those whose blood pressure is reduced due to treatment. As a consequence, the values analysed here are not comparable with estimates of prevalence of hypertension (or lack thereof). In fact, in epidemiological practice hypertension is defined as having either raised blood pressure or being in treatment or both, and for this reason prevalence of hypertension is always higher than prevalence of raised blood pressure.
Provincial overview

In 2017, the age-standardised prevalence of non-raised blood pressure was fairly consistent across provinces, ranging from 74.5% in the Northern Cape (NC) to 84.4% in Mpumalanga (MP) (Figure 2). Compared with 2015, modest decreases can be observed in Limpopo (LP) (0.5%) and the Western Cape (WC) (0.6%) but modest increases in North West (NW) (0.4%), and Gauteng (GP) (0.9%). Other provinces showed more substantial decreases (1.8% in KwaZulu-Natal (KZ), and 2.1% in the Free State (FS), or increases (3.0% in the Northern Cape, 3.4% in the Eastern Cape (EC) and 3.6% in Mpumalanga). Longer-term trends were positive for all provinces, with average increases during the period 2008 - 2017 varying from 3.0% in Limpopo to 13.1% in Mpumalanga.

**Figure 2:** Age-standardised prevalence of non-raised blood pressure among adults (15 years and older) by province, 2017

District overview

As shown in Figure 3, the prevalence of non-raised blood pressure varied quite substantially across districts, from a minimum of 68.8% in Zwelentlanga Fatman Mgcawu (NC) to a maximum of 92.6% in Sedibeng (GP). Map 1 shows a clear geographical pattern in the prevalence of non-raised blood pressure, with the lowest prevalences concentrated in the Western Cape, Northern Cape and part of the Free State, and the highest prevalences consistently recorded in the northern part of the country (Mpumalanga, Limpopo and Gauteng).

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**Source:** HST estimates from National Income Dynamics Study data.

**District overview**

As shown in Figure 3, the prevalence of non-raised blood pressure varied quite substantially across districts, from a minimum of 68.8% in Zwelentlanga Fatman Mgcawu (NC) to a maximum of 92.6% in Sedibeng (GP). Map 1 shows a clear geographical pattern in the prevalence of non-raised blood pressure, with the lowest prevalences concentrated in the Western Cape, Northern Cape and part of the Free State, and the highest prevalences consistently recorded in the northern part of the country (Mpumalanga, Limpopo and Gauteng).
Figure 3: Age-standardised prevalence of non-raised blood pressure among adults (15 years and older) by district, 2017

Source: HST estimates from National Income Dynamics Study™ data.
Section A: Non-communicable diseases

Map 1: Age-standardised prevalence of non-raised blood pressure among adults (15 years and older) by district, 2017

With few exceptions, long-term temporal trends increased consistently across districts (Figure 4). Between 2008 and 2017, only six districts (Sarah Baartman (EC), iLembe and uMkhanyakude (both KZ), Waterberg (LP), Zwelentlanga Fatman Mgcawu (NC) and Cape Winelands (WC)) experienced a reduction in the prevalence of non-raised blood pressure. All the remaining districts experienced an increase, varying from a modest 0.5% in eThekwini (KZ) to a remarkable 27.1% in Dr K Kaunda (NW).

Source: HST estimates from National Income Dynamics Study™ data.
Figure 4: Annual trends for age-standardised prevalence of non-raised blood pressure among adults (15 years and older) by district, 2008 - 2017

Source: HST estimates from National Income Dynamics Study\(^n\) data.

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A decreasing trend in mean blood pressure and prevalence of hypertension in the general adult population of South Africa have been observed previously, and attributed mainly to increased uptake of antihypertensive treatment. More research and data collection are needed to confirm this finding and exclude the possibility of an unreliable result. However, given the strong direct relationship between raised blood pressure and cardiovascular disease, if this trend is confirmed it will undoubtedly contribute toward the achievement of Goal 3.4 of the SDGs, namely one-third reduction of premature mortality from NCDs. According to a comparative analysis of age-standardised death rates for NCDs reported by Nojilana and colleagues, this reduction is already happening.

It is also reassuring to note a consistent trend towards improvement in blood pressure control in the large majority of districts.

**Prevalence of obesity and overweight**

Overweight and obesity are defined as abnormal or excessive fat accumulation that may impair health. Excessive body fat is a strong independent predictor of cardiovascular disease and diabetes, and substantially increases the risk of developing a series of other pathological conditions, including various types of cancers and musculoskeletal and mental disorders, with important negative consequences on quality of life, work productivity, and healthcare costs.

The indicator analysed here represents the percentage of adults (15 years and older) whose body mass index (BMI) equals or exceeds the conventional threshold of 25 kg/m² which identifies a body weight that is excessive for a given height. Body mass index is not a direct measure of body fat, but correlates relatively well with various direct measures such as skinfold thickness, underwater weighing, and with the results of other more complex measurement techniques. More interestingly, from a public health perspective, a large body of research shows that BMI is strongly correlated with the risk of developing the negative health outcomes cited above, chiefly cardiovascular diseases and diabetes.

**National overview**

Overall, the age-standardised prevalence of obesity and overweight in the South African adult population increased slightly in the last decade, from 47.9% observed in 2008 to 48.2% in 2017. However, the graph in Figure 5 indicates that this overall small difference between values recorded 10 years apart is far from the result of a gradual increase. On the contrary, it suggests that the net change is the result of the reversal of an initially strong positive trend, which brought down the peak prevalence observed in 2012 to values similar to those observed in 2008.

**Figure 5: National age-standardised prevalence of overweight and obesity among adults (15 years and older), 2008 - 2017**

Source: HST estimates from National Income Dynamics Study data.

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Section A: Non-communicable diseases

Provincial overview

Comparison of the prevalence of overweight and obesity recorded across provinces in 2017 (Figure 6) indicates relatively small differences, with an overall range of less than 7 percentage points. The province with the highest prevalence was the Western Cape (51.4%), and the province with the lowest prevalence was Mpumalanga (44.6%).

Long-term trends (estimated as differences between values recorded in 2008 and 2017) decreased for the Western and Eastern Cape (5.8% and 2.8%, respectively) and Gauteng (2.0%); remained constant for Mpumalanga; and increased for all other provinces (1.5% for KwaZulu-Natal, 4.3% for Free State, 5.3% for Limpopo, 5.8% for North West, and 7.6% for the Northern Cape).

Figure 6: Age-standardised prevalence of overweight and obesity among adults (15 years and older) by province, 2017

Source: HST estimates from National Income Dynamics Study data.

District overview

Variations in the prevalence of obesity and overweight were more evident across districts, as shown in Figure 7 and Map 2. There was more than 25 percentage points difference between the lowest prevalence (36.6% in Namakwa (NC) and the highest (62.3% in uMzinyathi (KZ)).
Figure 7: Age-standardised prevalence of overweight and obesity among adults (15 years and older) by district, 2017

Source: HST estimates from National Income Dynamics Study® data.
Section A: Non-communicable diseases

Map 2: Age-standardised prevalence of overweight and obesity among adults (15 years and older) by district, 2017

Source: HST estimates from National Income Dynamics Study\textsuperscript{\texttrademark} data.

The comparison of overweight and obesity trends across districts (Figure 8) also confirms the large variability, even between districts in the same province.
Figure 8: Annual trends for age-standardised prevalence of overweight and obesity among adults (15 years and older) by district, 2008 - 2017

Source: HST estimates from National Income Dynamics Study\textsuperscript{a} data.
The data presented above confirm previous findings, namely that the proportion of adults who are obese and overweight is much higher today than 20 years ago. However, the data also offer some preliminary indication that even given population ageing, this trend may start stabilising, if not reversing. If confirmed by future research, this observation would certainly be a source of positive expectation regarding future decreases in the incidence of the many pathological conditions correlated with unhealthy BMI levels.

Some implausibly large year-to-year variations in the prevalence of obesity and overweight point to limitations in the available survey data, including small sample sizes at district level and inhomogeneous response rates across population groups. However, it is unlikely that sampling variability and survey measurement limitations alone could explain some of the observed differences between districts, repeated over various years. These differences call for further research to identify possible causes.

Diabetes mellitus (or simply ‘diabetes’) is a serious, long-term pathological condition characterised by raised blood glucose levels. It is a major source of morbidity, mortality and health costs worldwide. Globally, the number of adults living with diabetes in 2019 was estimated at 463 million, projected to grow to 578 million by 2030. Untreated diabetes results in raised blood glucose levels for a prolonged period of time and is directly associated with a series of severe health complications, including cardiovascular disease, neuropathy, kidney damage and eye disease (leading to visual loss, and possibly blindness).

In order to track temporal trends and inter-district discrepancies relative to diabetes in South Africa, this section considers two different (but correlated) indicators. The first, namely prevalence of diabetes, is a direct measure of the spread of the disease in the population and is defined as the percentage of adults (15 years and older) in the general population who are diabetic. The second, namely treatment coverage for diabetes, is a measure of the response of the health system, and is defined as the percentage of adult diabetics (15 years and older) in the general population who are on treatment.

Unfortunately, data on the prevalence of diabetes in the general population are scarce in South Africa, and rely mostly on self-report and/or focus on specific populations or selected geographical regions. In the last decade, only two surveys have produced diabetes estimates based on blood samples collected in large nationally representative samples: the South African National Health and Nutrition Examination Survey (SANHANES) in 2012, and the South Africa Demographic and Health Survey (SADHS) in 2016. However, the sampling design and realisation of these surveys do not allow for the production of reliable estimates at sub-provincial level.

The values of the indicators reported and discussed below are, therefore, indirectly estimated using the modelling technique described in the Introduction and Overview chapter of this publication.

National overview

The modelled prevalence of diabetes in the general adult population of South Africa showed an almost linear increase from 5.5% estimated for 2008 to 10.6% estimated for 2017 (Figure 9). This large increase was accompanied by an 8.6 percentage point decrease in treatment coverage (Figure 10).
Figure 9: National prevalence of diabetes among adults (15 years and older), 2008 - 2017 (modelled)

Source: HST estimates from National Income Dynamics Study\(^n\) and South Africa Demographic and Health Survey\(^w\) data.

Figure 10: National diabetes treatment coverage among adults (15 years and older), 2008 - 2017 (modelled)

Source: HST estimates from National Income Dynamics Study\(^n\) and South Africa Demographic and Health Survey\(^w\) data.

Provincial overview

As shown in Figure 11, both prevalence and treatment coverage varied widely across provinces. Estimated prevalence was lowest in Mpumalanga (6.9%) and more than double that rate in the Western Cape (17.8%), which had the highest prevalence estimation.

Treatment coverage varied from 29.6% in the Western Cape to 46.1% in the Northern Cape (Figure 12).
**Section A: Non-communicable diseases**

**Figure 11: Prevalence of diabetes among adults (15 years and older) by province, 2017 (modelled)**

- **Source:** HST estimates from National Income Dynamics Study and South Africa Demographic and Health Survey data.

**Figure 12: Diabetes treatment coverage among adults (15 years and older) by province, 2017 (modelled)**

- **Source:** HST estimates from National Income Dynamics Study and South Africa Demographic and Health Survey data.

**District overview**

There was a 17-fold variation in the prevalence of diabetes across districts, ranging from the minimal value estimated for Sedibeng (GP) (1.7% in 2017) to the extremely high value (29.0%) estimated for Buffalo City (EC) (Figure 13). There was some clustering of districts with a high prevalence of diabetes; this is best seen in Map 3, which shows high-prevalence areas concentrated in the Western Cape, part of North West, and the metropolitan municipalities in KwaZulu-Natal and the Eastern Cape.
Figure 13: Prevalence of diabetes among adults (15 years and older) by district, 2017 (modelled)

Source: HST estimates from National Income Dynamics Study® and South Africa Demographic and Health Survey™ data.
Section A: Non-communicable diseases

Map 3: Prevalence of diabetes among adults (15 years and older) by district, 2017 (modelled)

Source: HST estimates from National Income Dynamics Study\textsuperscript{a} and South Africa Demographic and Health Survey\textsuperscript{b} data.

Treatment coverage also varied widely across districts, from a low of 8.5% in West Rand to 72.6% in Sedibeng (both GP) (Figure 14 and Map 4).
Figure 14: Diabetes treatment coverage among adults (15 years and older) by district, 2017 (modelled)

Source: HST estimates from National Income Dynamics Study® and South Africa Demographic and Health Survey™ data.
**Map 4: Diabetes treatment coverage among adults (15 years and older) by district, 2017 (modelled)**

Source: HST estimates from National Income Dynamics Study and South Africa Demographic and Health Survey data.

The temporal trends in diabetes prevalence (Figure 15) increased in all but six districts, namely Joe Gqabi (EC), Sedibeng and West Rand (both GP), King Cethswayo (KZ), Frances Baard (NC) and Dr K Kaunda (NW).

In contrast, treatment coverage decreased in most districts, with the exception of Joe Gqabi (EC), Sedibeng and Ekhuruleni (both GP), Mopani and Vhembe (both LP), Gert Sibande (MP), John Taolo Gaetsewe (NC), Dr K Kaunda and Dr Ruth Segomotsi Mompati (both NW), and Overberg (WC) (Figure 16).
Figure 15: Annual trends for diabetes prevalence among adults (15 years and older) by district, 2008 - 2017 (modelled)

Source: HST estimates from National Income Dynamics Study and South Africa Demographic and Health Survey data.
## Annual trends: Diabetes treatment coverage | both sexes | 15+ years | NiDS modelled

### Figure 16: Annual trends for diabetes treatment coverage among adults (15 years and older) by district, 2008 - 2017 (modelled)

Source: HST estimates from National Income Dynamics Study® and South Africa Demographic and Health Survey® data.
Section A: Non-communicable diseases

Cervical cancer screening coverage

Cervical cancer is a leading cause of death from cancer among women. While it isn't clear what causes cervical cancer, human papilloma virus (HPV) infection certainly plays a role in its occurrence. Multiple sexual partners, early sexual activity, other sexually transmitted infections, smoking, and weakened immune system are other risk factors for cervical cancer. Actions to reduce the risk of cervical cancer include: HPV vaccine, safe sex, avoiding or quitting smoking, and routine screening tests to identify and treat early-stage cervical cancer.

Cervical cancer coverage measures the number of women aged 30 years and older who received a screening for cervical cancer, as a proportion of 10% of all women aged 30 years and above. According to the South African cervical cancer prevention and control policy, starting at the age of 30 years, women should have cervical smears (for screening) done at 10-year intervals. The screening frequency is higher in women considered to be at high risk. Cervical pap smear or visual inspections with acetic acid (VIA) are the methods of screening often used.

National overview

During the decade from 2008/09 to 2018/19, the proportion of South African women aged 30 years and above screened for cervical cancer at least once every 10 years increased steadily from 43.2% to 65.1%, despite a small decrease between 2016/17 and 2017/18, as shown in Figure 17.

Figure 17: National cervical cancer screening coverage among women aged 30 years and older, 2008/09 - 2018/19

Source: DHIS.

Provincial overview

In 2018/19, cervical cancer screening coverage among women aged 30 years and older varied substantially across provinces. The proportion of women (30 years and older) screened for cervical cancer at least once every 10 years ranged from 46.0% in the Northern Cape to 89.9% in Mpumalanga, as shown in Figure 18. Despite year-by-year fluctuations, cervical cancer screening coverage increased between 2008/09 and 2018/19 across all provinces (Figure 19).

Source: DHIS.

Section A: Non-communicable diseases

Figure 18: Cervical cancer screening coverage among women 30 years and older by province, 2018/19

Figure 19: Annual trends for cervical cancer screening coverage among women (30 years and older) by province, 2008/09 - 2018/19

District overview

The cervical cancer screening coverage varied substantially across districts, with the lowest coverage rate (37.7%) recorded in Namakwa (NC), and the highest coverage of 138.6% in Harry Gwala (KZ) (Figure 20). Eight districts (seven in KwaZulu-Natal) reported a coverage above 100%. The reasons may have been poor data quality or an under-estimation of the female population 30 years and older. However, given the very high prevalence of HIV among women in KwaZulu-Natal, which puts them in the high-risk category, it is likely that these women have had pap smears more frequently than once every 10 years. This increases the numerator, thereby making rates of over 100% more likely. Four of the five districts in the Northern Cape had a cervical screening coverage below 50%.
Figure 20: Cervical cancer screening coverage among women 30 years and older by district, 2018/19
Section A: Non-communicable diseases

Map 5 shows some clustering of districts for level of screening coverage by local municipality/sub-district (LM/SD).

**Map 5: Cervical cancer screening coverage among women (30 years and older) by local municipality/sub-district, 2018/19**

Table 1: Local municipality/sub-district with cervical cancer screening coverage below 40%, 2018/19

<table>
<thead>
<tr>
<th>Province</th>
<th>District</th>
<th>Local municipality/sub-district</th>
<th>Cervical screening coverage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern Cape</td>
<td>Namakwa</td>
<td>Kamiesberg</td>
<td>22.5</td>
</tr>
<tr>
<td>Northern Cape</td>
<td>Pixley Ka Seme</td>
<td>Ubuntu</td>
<td>24.2</td>
</tr>
<tr>
<td>Northern Cape</td>
<td>Namakwa</td>
<td>Richtersveld</td>
<td>26.6</td>
</tr>
<tr>
<td>Limpopo</td>
<td>Capricorn</td>
<td>Polokwane</td>
<td>28.5</td>
</tr>
<tr>
<td>Northern Cape</td>
<td>Zweelentlanga Fatman Mgcawu</td>
<td>Kai !Garib</td>
<td>29.9</td>
</tr>
<tr>
<td>KwaZulu-Natal</td>
<td>uMgungundlovu</td>
<td>uMngeni</td>
<td>30.7</td>
</tr>
<tr>
<td>Northern Cape</td>
<td>Pixley Ka Seme</td>
<td>Kareeberg</td>
<td>32.3</td>
</tr>
<tr>
<td>Free State</td>
<td>Thabo Mofutsanyana</td>
<td>Phumelela</td>
<td>32.5</td>
</tr>
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<td>Gauteng</td>
<td>Johannesburg</td>
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<tr>
<td>Gauteng</td>
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<td>Namakwa</td>
<td>Khâi-Ma</td>
<td>34.1</td>
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<td>Northern Cape</td>
<td>John Taolo Gaetsewe</td>
<td>Ga-Segonyana</td>
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</tr>
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<td>Gauteng</td>
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<td>Ekurhuleni N1</td>
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</tr>
<tr>
<td>Free State</td>
<td>Mangaung</td>
<td>Bloemfontein</td>
<td>37.9</td>
</tr>
</tbody>
</table>

Source: DHIS.
Variable trends were seen in cervical cancer screening coverage by district across years, as shown in Figure 21. Data suggest that cervical cancer coverage has recovered from a drop observed between 2017/18 and 2018/19, and is continuing the improvement seen between 2008/09 and 2017/18. To what extent this improvement translated into early detection and treatment of cervical cancer cannot be ascertained from the available data.

Figure 21: Annual trends for cervical cancer screening coverage by district, 2008/09 - 2018/19

Source: DHIS.
Section A: Non-communicable diseases

Mental disorders treatment rate new

Mental disorders refer to a wide range of conditions that affect mood, thinking, perception, behaviour and relationships with others. Depression, anxiety disorders, and dementia are some common mental disorders. There are effective strategies to prevent mental disorders such as depression, and effective treatments are available to alleviate the suffering caused by these conditions.

‘Mental disorder treatment rate new’ measures the number of clients treated for mental disorders (depression, anxiety, dementia, psychosis, mania, suicide, developmental disorders, behavioural disorders and substance use) as a proportion of total primary health care (PHC) headcount expressed as a percentage.\(^y\) The numerator is PHC new client treated for mental disorders, and the denominator is total PHC headcount.

National overview

In 2018/19, the mental disorder treatment rate new in South Africa was 0.4% (Table 2).

Provincial overview

In 2018/19, the mental disorder treatment rate new ranged from almost 0% in KwaZulu-Natal to 1.2% in the Free State. Only two districts in KwaZulu-Natal submitted numerator data for this indicator. Data for the numerator were not collected in the Western Cape at all, so this province was not included in the reporting.

Table 2: Mental disorder treatment rate new by province, 2018/19

<table>
<thead>
<tr>
<th>Province</th>
<th>2018/19 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern Cape</td>
<td>0.2</td>
</tr>
<tr>
<td>Free State</td>
<td>1.2</td>
</tr>
<tr>
<td>Gauteng</td>
<td>0.4</td>
</tr>
<tr>
<td>KwaZulu-Natal</td>
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</tr>
<tr>
<td>Limpopo</td>
<td>1.1</td>
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<tr>
<td>Mpumalanga</td>
<td>0.5</td>
</tr>
<tr>
<td>Northern Cape</td>
<td>0.4</td>
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<tr>
<td>North West</td>
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</tr>
<tr>
<td>Western Cape</td>
<td>0.0</td>
</tr>
<tr>
<td>South Africa</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Source: DHIS.


District overview

By district, the mental disorder treatment rate new ranged from 0.1% in eight districts (excluding the six districts in the Western Cape and nine of the 11 districts in KwaZulu-Natal) to 4.0% in Mopani (LP), as shown in Table 3. Namakwa reported a rate of 0%; however, it is not clear if the district had not submitted data for the numerator or if no new client was treated for a mental disorder in the period.

Table 3: Mental disorder treatment rate new by district, 2018/19

<table>
<thead>
<tr>
<th>District</th>
<th>2018/19 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern Cape</td>
<td></td>
</tr>
<tr>
<td>Alfred Nzo</td>
<td>0.2</td>
</tr>
<tr>
<td>Amathole</td>
<td>0.1</td>
</tr>
<tr>
<td>Buffalo City</td>
<td>0.2</td>
</tr>
<tr>
<td>Chris Hani</td>
<td>0.2</td>
</tr>
<tr>
<td>Joe Gqabi</td>
<td>0.3</td>
</tr>
<tr>
<td>Nelson Mandela Bay</td>
<td>0.5</td>
</tr>
<tr>
<td>OR Tambo</td>
<td>0.3</td>
</tr>
<tr>
<td>Sarah Baartman</td>
<td>0.2</td>
</tr>
<tr>
<td>Free State</td>
<td></td>
</tr>
<tr>
<td>Fezile Dabi</td>
<td>1.2</td>
</tr>
<tr>
<td>Lejweleputswa</td>
<td>0.6</td>
</tr>
<tr>
<td>Mangaung</td>
<td>2.9</td>
</tr>
<tr>
<td>Thabo Mofutsanyana</td>
<td>0.4</td>
</tr>
<tr>
<td>Xhariep</td>
<td>0.3</td>
</tr>
</tbody>
</table>
### Mental health separation rate

In South Africa there are currently 24 public psychiatric hospitals that only admit patients with psychiatric health problems (Table 4). However, district, regional, provincial, tertiary and national central hospitals also admit psychiatric patients for a period of 72 hours. If the patients require further care, they are referred to a psychiatric hospital.

Research from various sources\(^2\) indicates that the patient population requiring short-term hospitalisation for management of acute psychiatric problems such as suicide, brief psychosis, or panic attacks, or brief hospitalisation for severe psychiatric disorders such as schizophrenia or bipolar disorder, constitutes approximately 3% of the general population in South Africa.

In the past, people with mental health problems requiring hospitalisation were frequently admitted and treated in the large centralised specialised psychiatric hospitals. The future envisages an integrated model in which beds are provided in general hospitals, with the specialised psychiatric hospitals being utilised for long-term care where indicated.


Mental health separation rate by province, 2018/19

<table>
<thead>
<tr>
<th>Province</th>
<th>Number of public psychiatric hospitals</th>
<th>Total number of public hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern Cape</td>
<td>4</td>
<td>110</td>
</tr>
<tr>
<td>Free State</td>
<td>1</td>
<td>53</td>
</tr>
<tr>
<td>Gauteng</td>
<td>6</td>
<td>132</td>
</tr>
<tr>
<td>KwaZulu-Natal</td>
<td>6</td>
<td>114</td>
</tr>
<tr>
<td>Limpopo</td>
<td>3</td>
<td>53</td>
</tr>
<tr>
<td>Mpumalanga</td>
<td>0</td>
<td>51</td>
</tr>
<tr>
<td>Northern Cape</td>
<td>1</td>
<td>19</td>
</tr>
<tr>
<td>North West</td>
<td>2</td>
<td>26</td>
</tr>
<tr>
<td>Western Cape</td>
<td>4</td>
<td>102</td>
</tr>
<tr>
<td>South Africa</td>
<td>24</td>
<td>660</td>
</tr>
</tbody>
</table>

Source: DHIS.

The mental health separation rate measures the proportion of clients admitted for mental health problems. Inpatient separations is the total number of inpatient discharges, inpatient deaths and inpatient transfers out. Inpatient separation is used as a proxy for admissions, and is used to monitor mental health admission trends in public hospitals.

National overview

In 2018/19, the mental health separation rate was 2.5% at national level (Figure 22). The 24 public psychiatric hospitals had a mental health separation rate of 100%. The overall rate of 2.5% includes patients admitted for a mental health problem in public psychiatric and other hospitals, indicating that on average 2.5% of all patients admitted in all public hospitals in 2018/19 were admitted for a mental health problem. The 2.5% average mental health separation rate seems to be in line with the research findings.

Provincial overview

In 2018/19, the mental health separation rate by province ranged from 1.1% in Gauteng to 8.8% in the Free State (Figure 22).

Figure 22: Mental health separation rate by province, 2018/19

District overview

In 2018/19, the mental health separation rate by district ranged from 0.1% in Mopani (LP) to 14.8% in Maugaung (FS) (Figure 23). Map 6 shows that within provinces there was substantial variation in the mental health separation rate by district. Rates in Maugaung and Lejweleputswa appear suspicious and may have been due to poor data quality.
Figure 23: Mental health separation rate by district, 2018/19
Section A: Non-communicable diseases

Key observations
✦ Values for numerators and denominators for three indicators, namely cervical cancer screening coverage, mental disorders treatment rate, mental health separation rate, were obtained directly from DHIS and therefore might include implausible values for some districts due to poor data quality or lack of data.
✦ The trend in age-standardised prevalence of non-raised blood pressure increased at both national and provincial level. Most districts followed the same trend, with a few exceptions.
✦ The age-standardised prevalence of overweight and obesity increased over the 10-year period, but the 2017 data seem to suggest stabilisation.
✦ Diabetes prevalence is increasing rapidly in South Africa as a whole. With a few exceptions, this is also true at local level, although the pace of growth showed significant variation across districts. The values of the indicators are not age-standardised, which means that part of the growth is a likely consequence of population ageing, given the strong relationship between age and risk of diabetes. However, the observed rate of increase is well beyond what can be explained by demographic changes alone and clearly points towards a rapidly expanding diabetes epidemic in the country, similar to what is happening worldwide, and in low- and middle-income countries in particular.\textsuperscript{bb}
✦ In contrast, diabetes treatment coverage is decreasing rapidly almost everywhere. This is not surprising given that data on the incidence of new diabetes diagnoses, analysed in previous editions of the District Health Barometer (DHB),\textsuperscript{cc} show rates of increase less than half the estimated rates shown here. Even though the comparison must take into account that the cited incidence data only include public health facilities, the difference points clearly towards an increasing number of undiagnosed (and therefore untreated) diabetic patients in South Africa. Both these trends are counter to the desired achievement of the SDG targets. In particular, increasing diabetes prevalence and decreasing treatment coverage make the achievement of Target 3.4 (reduction of premature mortality for NCDs) more difficult. Moreover, decreasing diabetes treatment coverage will make achievement of Target 3.8 more difficult (coverage of essential services is a component of this target).
✦ After a transient decline between 2017/18 and 2018/19, cervical cancer screening coverage increased sustainably in the country over the last decade, with about 65% of eligible women (aged 30 years and older) currently receiving screening. The impact of this positive pattern on the incidence of cervical cancer is difficult to ascertain in the absence of updated data.
✦ In 2018/19, treatment of mental health disorders in PHC patients was generally low, likely reflecting a combination of under-recognition and under-treatment of these conditions in PHC patients, and under-reporting to the DHIS when recognised and treated.
✦ In 2018/19, mental health problems accounted for 2.5% of hospital admissions in all hospitals, providing a baseline figure against which future trends can be monitored. The observed national average was driven by high admission rates in two provinces, namely Free State and the Western Cape.

Conclusions
✦ Despite the existence of a comprehensive set of policies covering the major risk factors for NCDs (including legislation to reduce tobacco consumption and intake of fatty acids, salt, sugar and unhealthy food),\textsuperscript{dd} cervical cancers,\textsuperscript{a} and mental health,\textsuperscript{ee} the data discussed in this chapter suggest that the burden associated with NCDs is currently large and unlikely to be reduced in the short term.
✦ Estimates of diabetes prevalence and coverage are worrying and seem to suggest that the health system is not keeping up with rapidly increasing needs. Estimates regarding blood pressure control, and possibly obesity, show moderate signs of improvement, but both indicators are not on par with the objectives set by the government’s Strategic Plan for the Prevention of Non-communicable Diseases.\textsuperscript{ff}
✦ After a transient decrease between 2017 and 2018, cervical cancer screening coverage continued to improve in 2018/19, sustaining the overall trend observed over the last decade.

Potential issues with the quality and completeness of available data on mental health service provision, and lack of time-trend figures, currently preclude effective use of these data in understanding the performance of the health system in dealing with mental health disorders.

**Recommendations**

- As recommended by Kengne and Sayed, strategies for early detection and diagnosis of diabetes and adequate management of diabetic patients should be implemented urgently to improve treatment coverage and reduce adverse health consequences of untreated diabetes.
- Comparative analyses of data from multiple sources should be undertaken to produce reliable estimates on the prevalence of raised blood pressure and the distribution of BMI and other obesity indicators, and to confirm or refute the suggestion of a possible recent reversal of a previously increasing trend.
- More data should be collected and analysed on the actual prevalence and incidence of diabetes in the general population.
- Data from other sources, such as the National Cancer Registry and the National Health Laboratory Service, should be exploited to understand how the improving cervical cancer screening coverage rate is affecting the incidence, types and outcomes of cervical cancer in the country.
- Data quality and completeness must be improved so that there can be better appraisal of efforts by the health system to prevent and control mental disorders and achieve SDG Target 3.4.