10 HIV

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South Africa remains at the centre of the global HIV and AIDS epidemic, with an estimated 6.8 million people affected by the disease at the end of 2014.[a] While the country has made significant strides in improving access to treatment and reducing mother to child transmission, spread of the epidemic is still of serious concern. There were 469 000 new infections recorded at the end of 2012, with particularly high incidence levels among young women aged 15–24 years.[b] KwaZulu-Natal (KZN) has consistently experienced the highest prevalence level among 15–49-year-olds at 37.4% in 2011 and 2012, followed by Mpumalanga (MP) and Free State (FS) with prevalence rates greater than 30.0%.[c] Fuelling the spread of the disease is the reported decline in knowledge levels about HIV and AIDS, and an increase in risky sexual behaviour.[c]

Tuberculosis (TB) continues to be the leading cause of death in people with HIV and AIDS. According to the World Health Organization (WHO), the risk of developing TB is estimated to be between 26 and 31 times greater in people living with HIV than among those who are not infected.[d] South Africa has a high incidence of both HIV and TB, and continues to face the challenge of preventing these conditions, while also improving the management of patients who are co-infected.

The country has responded to these challenges by setting ambitious strategic targets to reduce new HIV infections by at least 50% using combined preventive approaches. In addition, the National Strategic Plan (NSP)[e] aims to: (i) initiate at least 80% of eligible patients on antiretroviral treatment (ART); (ii) reduce the number of new TB infections and deaths by 50%; (iii) ensure an enabling and accessible legal framework that protects and promotes human rights; and (iv) reduce self-reported stigma related to HIV and TB by at least 50%. Current South African policy has also been revised to ensure that all HIV-positive TB patients have access to treatment, irrespective of their CD4 count.

As an adjunct to national targets, the new UNAIDS global 90-90-90 targets[f] call for the following to be achieved by 2020: 90% of all people with HIV to be diagnosed, 90% of people diagnosed with HIV to receive ART, and 90% of those on ART to have a suppressed viral load, with achievement of the first target being key to achievement of the second and third[g]. South Africa has adopted these targets, and district management teams in high-burden areas in the country are adapting their strategies and operational plans to align and focus their efforts to achieve both national and global targets.

This chapter covers four HIV-related indicators, namely: (i) male condom distribution coverage; (ii) HIV testing coverage (including antenatal care (ANC)); (iii) percentage of TB cases with known HIV status, and (iv) TB/HIV co-infected client on ART rate. These indicators cover aspects of HIV prevention and treatment of TB/HIV co-infected patients. It is important to note that HIV testing coverage and the TB/HIV co-infected client initiated on ART rate were only introduced in the National Indicator Data Set (NIDS) with routine data collection from April 2013. Therefore trend data for these indicators are not yet available. The source of two indicators, namely, TB/HIV co-infected client on ART rate and percentage of TB cases with known HIV status, is the Electronic TB register (ETR.Net). The four indicators should be interpreted in the context of other prevention and treatment indicators to establish outcomes and impact of interventions.

10.1 Male condom distribution coverage

Male condom distribution coverage refers to the number of male condoms distributed through public health facilities, identified outlets and other non-medical sites in a given 12-month period per male aged 15 years and older. In a joint position paper by the Joint United Nations Programme on HIV and AIDS (UNAIDS), the WHO and the United Nations Population Fund (UNFPA),[h] condoms are reported to form a critical component in a comprehensive and sustainable approach to prevention of HIV and other sexually transmitted infections (STIs), and they have the added benefit of being effective in preventing unintended pregnancies. Distribution of condoms remains an integral and cost-effective component of South Africa's prevention efforts. However, despite condoms being made freely available and accessible to the South African population since 2007, risky behaviour and insufficient levels of condom use continue to drive the HIV epidemic.[b] Even though the National Communication Survey of 2012[i] showed progress with condom use at first sex, and increasing condom

a UNAIDS Country Profile. Available from: http://www.unaids.org/en/regionscountries/countries/southafrica [accessed 20 April 2015].

b Shisana O, Rehle T, Simbayi LC, et al. South African National HIV Prevalence, Incidence and Behavioural Survey, 2012. Cape Town: HSRC Press; 2014.

c South African National Department of Health. The 2012 National Antenatal Sentinel HIV and Herpes Simplex type-2 Prevalence Survey. Available from: http://www.health-e.org.za/wp-content/uploads/2014/05/ASHIVHerp_Report2014_22May2014.pdf [accessed 18 August 2015].

d World Health Organization. TB and HIV Topics. Available from: http://www.who.int/hiv/topics/tb/about_tb/en/ [accessed 24 August 2015].

e South African National AIDS Council (SANAC). National Strategic Plan on HIV, STIs and TB 2012-2016. Pretoria: SANAC, 2011.

f Joint United Nations Programme on HIV/AIDS (UNAIDS). 90-90-90: An ambitious treatment target to help end the AIDS epidemic. Geneva: UNAIDS; October 2014.

g World Health Organization. Consolidated guidelines on HIV testing services, 2015. Geneva: WHO; 2015.

h UNFPA, WHO and UNAIDS. Position statement on condoms and the prevention of HIV, other sexually transmitted infections and unintended pregnancy. Available from: http://www.who.int/hiv/mediacentre/news/condoms-joint-positionpaper/en/ [accessed 18 August 2015].

i The Third National HIV Communication Survey, 2012. Available from: http://jhhesa.org/sites/default/files/hiv_survey.pdf [accessed 18 August 2015].

use among young people over the last decade, the 2012 Human Sciences Research Council (HSRC) household survey[j] reported declining condom use in all age groups compared with the 2008 survey.[k] A concerning finding of the 2012 South African National HIV Prevalence, Incidence and Behavioural Survey[b] is that despite the country's intensified efforts to ramp up condom distribution, the "2012 condom use at last sex act by both males and females across all age groups decreased to 36.2%, returning to levels similar to those recorded in 2005 (35.4%)". Targeted behaviour-change interventions that focus on correct and consistent condom use, delayed sexual debut, reduced multiple concurrent partners, and reduced intergenerational sexual relationships must form part of a comprehensive prevention strategy.

Evidence suggests that for every 500 condoms distributed, one new HIV infection is averted, leading to the ambitious target of 1 billion condoms distributed per year.[l] In 2014/15, a total of 712 387 234 male condoms were distributed compared with 506 378 224 distributed in 2013/14, and 387 460 799 distributed in 2012/13. All provinces recorded increases in male condom distribution coverage between 2012/13 and 2014/15.

On average, 38.4 male condoms were distributed per male 15 years and older in 2014/15 compared with 27.9 in 2013/14. Provincial comparisons shown in Figure 1 indicate that only two provinces, namely KwaZulu-Natal and the Western Cape (WC), surpassed the South African average condom distribution coverage rate. KwaZulu-Natal performed the best with a coverage of 58.9, and the Northern Cape (NC) was the worst-performing province with only 20.3 male condoms distributed per male 15 years and older. However, the Northern Cape demonstrated an improvement from the previous year's rate of 11.5 condoms per male over 15 years.

Figure 1: Male condom distribution coverage by province, 2014/15

The district with the highest coverage was uMgungundlovu (KZN) at 216.8 male condoms, while the lowest coverage was recorded in Namakwa (NC), with 10.3 condoms per male 15 years and older (Figure 2 and Map 1). KwaZulu-Natal contributed nine of the 10 top-performing districts in 2013/14, but the pattern changed in 2014/15, with the province contributing only five of the top 10 districts. Figure 3 shows the performance of National Health Insurance (NHI) districts, with seven of the 11 NHI districts exceeding the national average of 38.4 condoms per male 15 years and older. In 2014/15, the top-performing NHI district for this indicator was uMgungundlovu with coverage as noted above, which while impressive, may be unrealistic for other provinces. The poorest-performing NHI district was Pixley ka Seme (NC) at 11.4. It is important that all NHI districts begin to perform consistently above the South African national average as they are the focus of intense service-delivery improvement initiatives, which are closely monitored at provincial and national level.

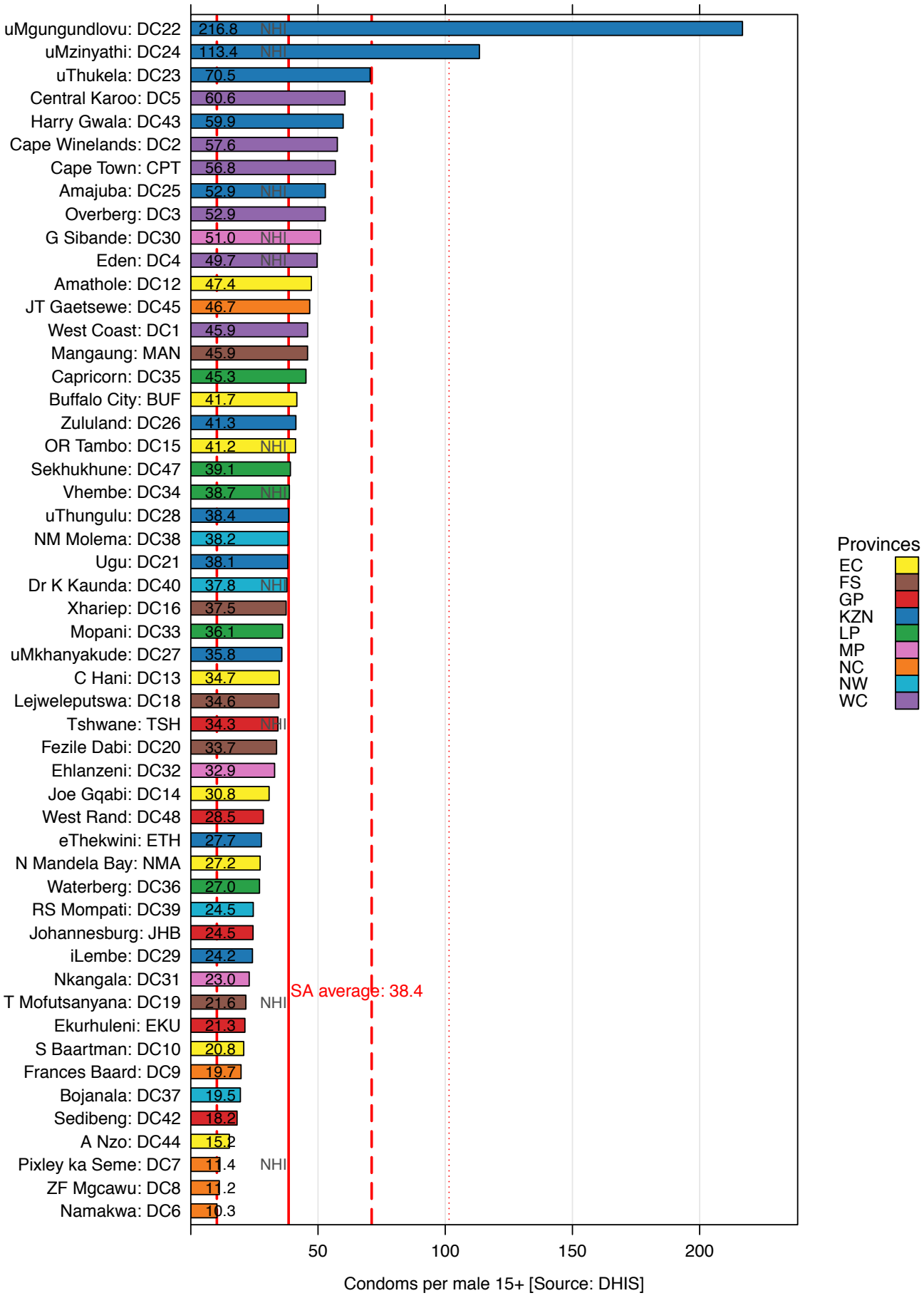
Male condom distribution showed a consistent upward annual trend in most of the districts (Figure 4). Coverage by socio-economic quintile (SEQ) is shown in Figure 5, with coverage being highest in SEQ3 and lowest in SEQ4.

j South African National HIV, Behaviour and Health Survey 2012 - See more at: http://www.hsrc.ac.za/en/research- areas/Research_Areas_HAST/HAST_National_HIV_Survey#sthash.3ZHkhG7A.dpuf [accessed 18 August 2015].

k Shisana et al. South African national HIV prevalence, incidence, behaviour and communication survey 2008: A turning tide among teenagers? 2009. Cape Town: HSRC Press. http://www.hsrc.ac.za/Document-3238.phtml

l Corbett EL, Marston B, Churchyard GJ, De Cock KM. Tuberculosis in sub-Saharan Africa: opportunities, challenges, and change in the era of antiretroviral treatment. Lancet. 2006;367(9514):926-37.

Figure 2: Male condom distribution coverage by district, 2014/15



Map 1: Male condom distribution coverage by sub-district, 2014/15

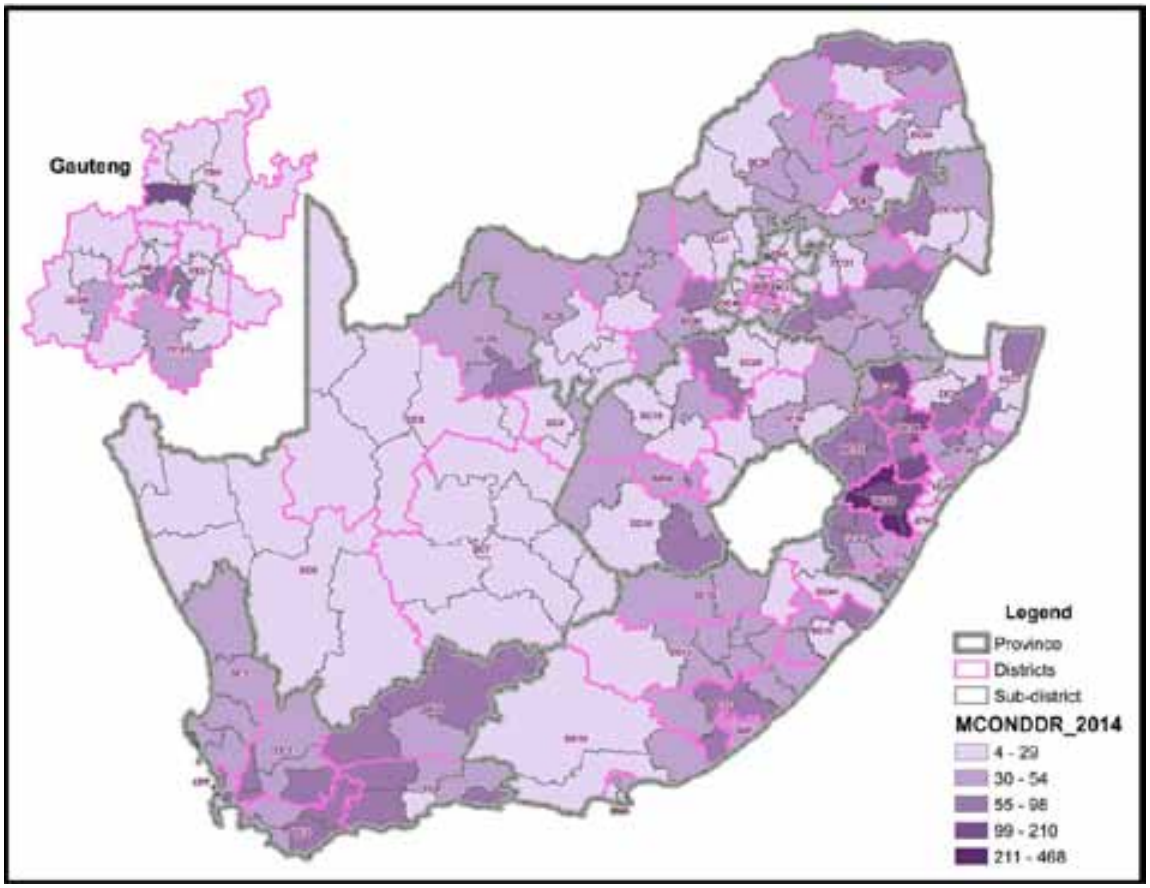


Figure 3: Male condom distribution coverage by NHI district, 2014/15

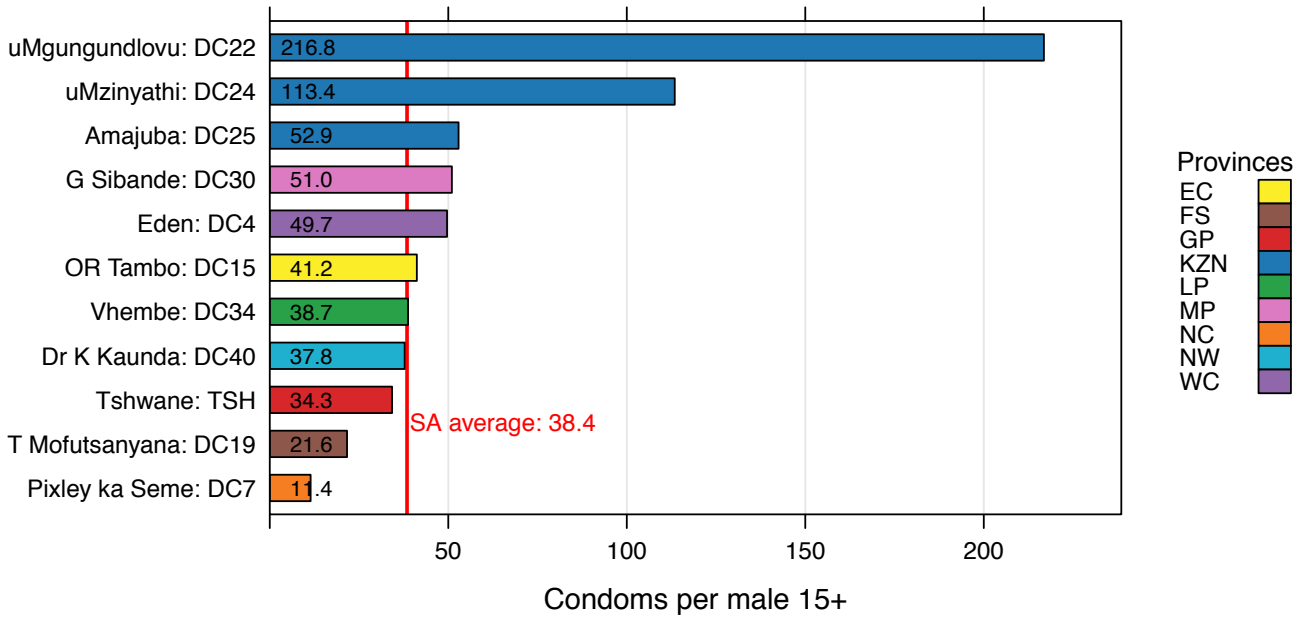


Figure 4: Annual trends: Male condom distribution coverage

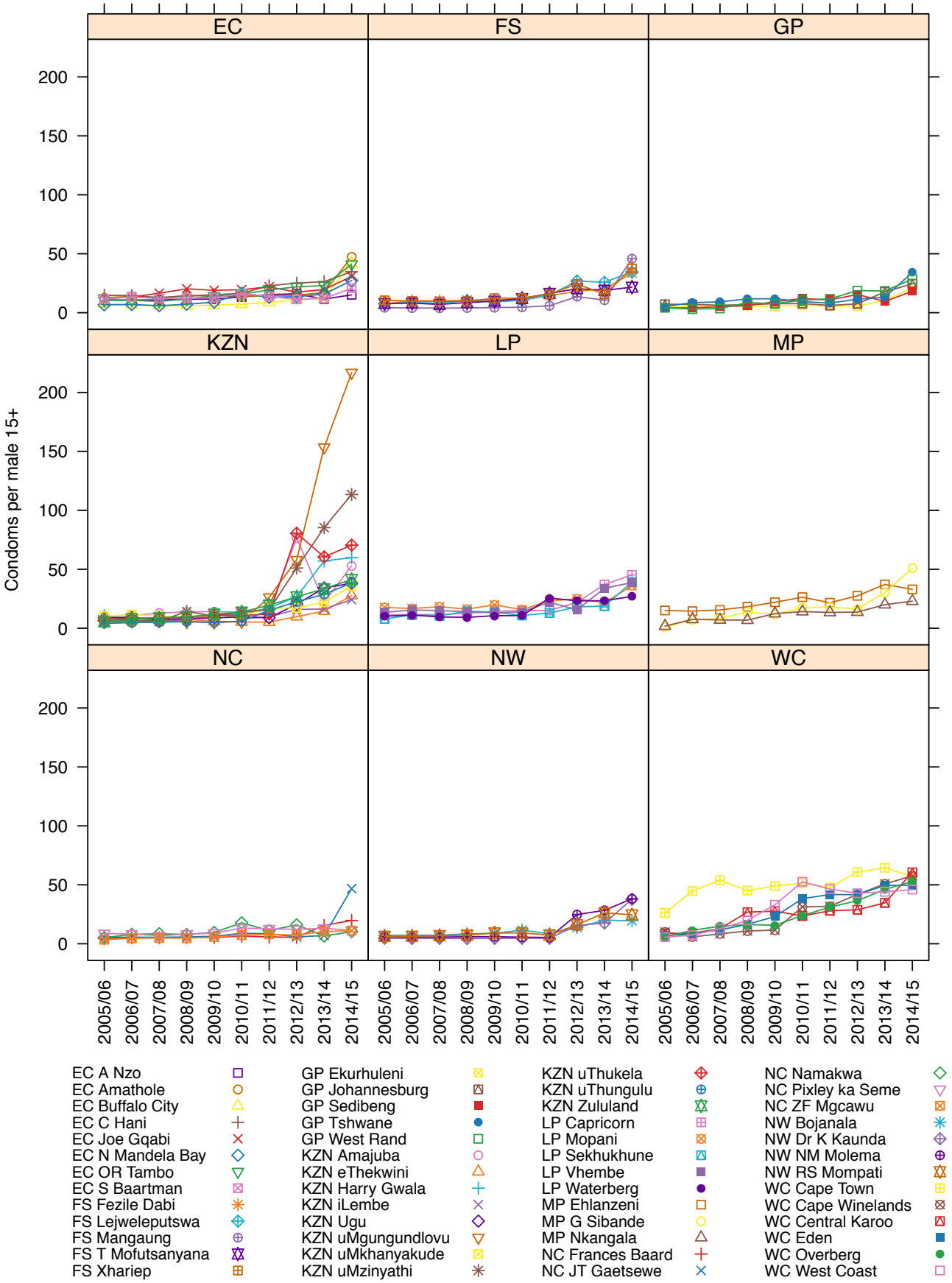
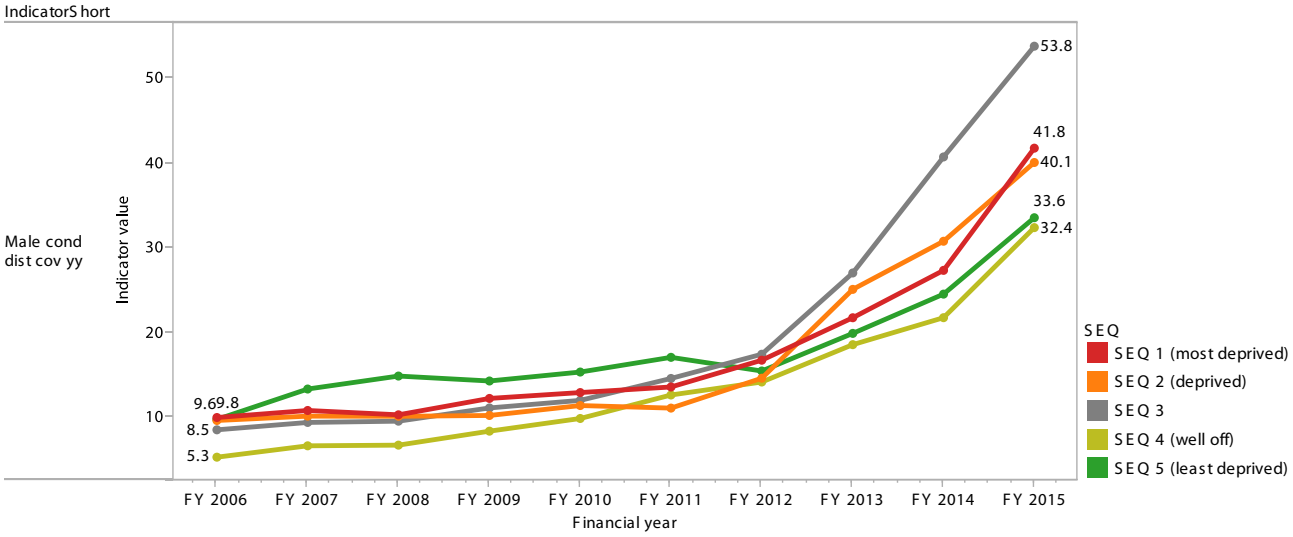


Figure 5: Trends in average district values by SEQ for male condom distribution coverage



10.2 HIV testing coverage (including antenatal care)

"HIV counselling and testing (HCT) is vital for identifying HIV-positive persons and provides an entry point to comprehensive HIV prevention, treatment, care and support".[m] Efforts to increase HIV testing coverage must be prioritised in order to ensure that the NSP target of a 50% reduction in HIV infections is realised. South Africa can be commended on its efforts to increase citizen awareness around HIV status and access to treatment. HCT coverage (excluding antenatal care) doubled from 19.9% in 2008 to 37.5% in 2012 among males, and from 28.7% in 2008 to 52.6% in 2012 among females. This refers to the percentage of people who tested for HIV in the 12 months preceding the 2012 HSRC Survey.[b] These increases were probably influenced by the HCT campaign launched in 2010, which is often lauded as one of the largest prevention efforts in the world.

South African government guidelines[i] advise that all adults should be offered HCT whenever an opportunity arises, with this repeated at least annually depending on risk. South Africa's HCT efforts are further designed to:

- Create an enabling environment that promotes universal access to safe, effective and good-quality HCT services;
- Encourage individuals, couples, families, and communities to test for HIV in the interests of their own health;
- Promote support for positive living, healthy lifestyles and good nutrition;
- Encourage and support voluntary disclosure of HIV status and the minimisation of stigma;
- Facilitate referral and access to prevention, treatment, care and support services following HIV testing;
- Facilitate and promote integration of HCT with family planning (FP) services, and services for TB, STIs, and other communicable and non-communicable diseases; and
- Integrate affordable, feasible, accessible, safe, and sustainable HCT services into the health system.[i]

The combined preventive approach adopted in South Africa includes condom distribution, male medical circumcision, and other behaviour-change and behaviour-modification interventions. The HCT campaign is a comprehensive package offered free of charge to test for HIV and to screen for TB and other chronic diseases. The campaign targets various workplaces and communities across the country, ranging from farms and taxi ranks to mines, banks and universities. In October 2014, South Africa bolstered its massive HIV-testing programme by including eye refraction and blood pressure tests as part of the campaign. Government has also scaled up the public servant response to HIV and AIDS through a national HCT campaign that aims to counsel and test its 1.2 million public servants.[n] The HCT target set out in the Department of Health's Annual Performance Plan is 10 million people tested annually from 2014 onwards, with the hope of having 50 million people tested by 2019. [o]

To monitor gains made in HIV testing, the HIV testing coverage indicator measures all people aged from 15 to 49 years who were tested for HIV (including antenatal care) during the year as a percentage of the total population in this age group. People are tested either through provider-initiated or client-initiated counselling and testing services. The indicator

m National Department of Health. National consolidated guidelines for the prevention of mother-to-child transmission of HIV (PMTCT) and the management of HIV in children, adolescents and adults. Pretoria: NDoH; 2014.

n The South African Government. HIV Counselling and Testing (HCT) Campaign. Available at: http://www.gov.za/about-government/government-programmes/hiv-counseling-and-testing-hct-campaign [accessed 20 August 2015].

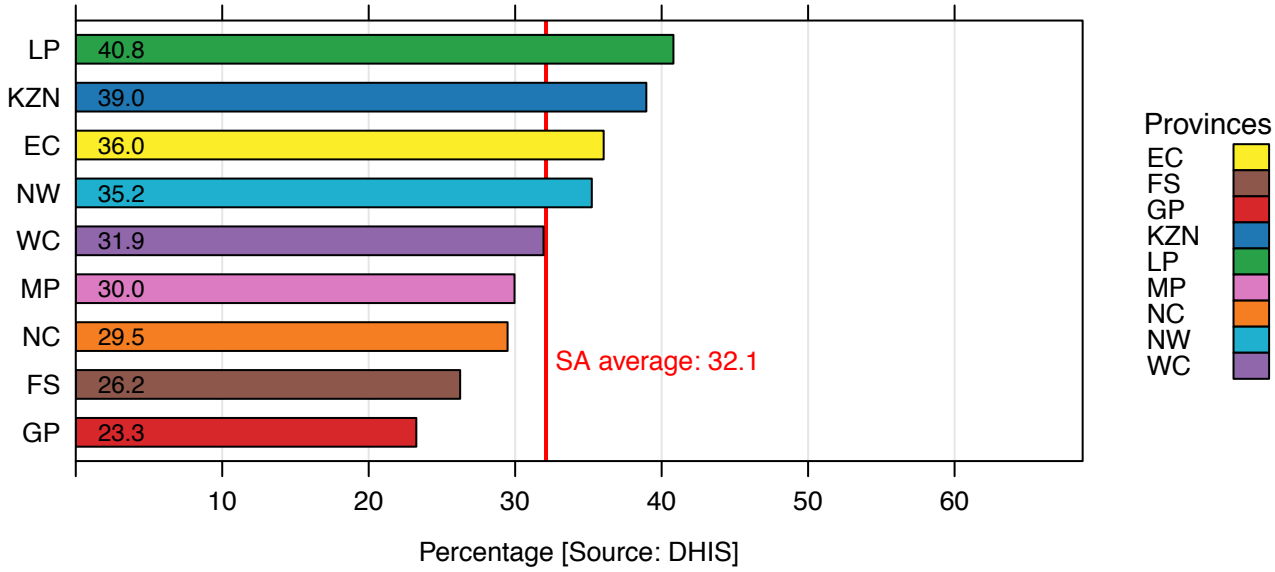
o South African National Department of Health. Annual Performance Plan 2014/15–2016/17. Pretoria: NDoH; 2014.

encompasses HIV testing done within public health facilities as well as any other non-medical sites that report data to the District Health Information Software (DHIS). During 2014/15, tests administered to antenatal clients were included in order to provide a more comprehensive picture of coverage. The inclusion of antenatal clients resulted in a 3.1% increase in HIV testing coverage (29.0% without antenatal care versus 32.1% including antenatal care). This indicator was only introduced in April 2013 and some degree of the poor performance may be due to data quality and recording issues associated with the roll-out of new data elements. Some of the cited reasons for poor performance are as follows:

- Professional nurses do not offer the service to clients as expected;
- Data quality issues result in double counting or not all tests being counted;
- A high number of patients already know their status and have either not been advised that annual testing should be undertaken or have chosen not to do so;
- High workload of professional nurses.

The two provinces with the highest HIV testing coverage were KwaZulu-Natal and Limpopo (LP) with 39.0% and 40.8% of adults aged 15-49 years tested for HIV in 2013/14 respectively (Figure 6). The two poorest-performing provinces were the Free State and Gauteng (GP) at 26.2% and 23.3% respectively. The HIV testing coverage for the Free State and Western Cape was vastly different between 2013/14 and 2014/15. The Western Cape coverage increased from 9.1% in 2013/14 to 31.9% in 2014/15. This is probably due to a more complete data set being available for 2014/15, as only data for the last quarter were submitted in 2013/14. The drop in HIV testing coverage in the Free State from 29.0% in 2013/14 to 26.0% in 2014/15, despite antenatal care numbers being included, is of concern as it is the only province with a drop in coverage. It is assumed that data quality issues may have played a part here.

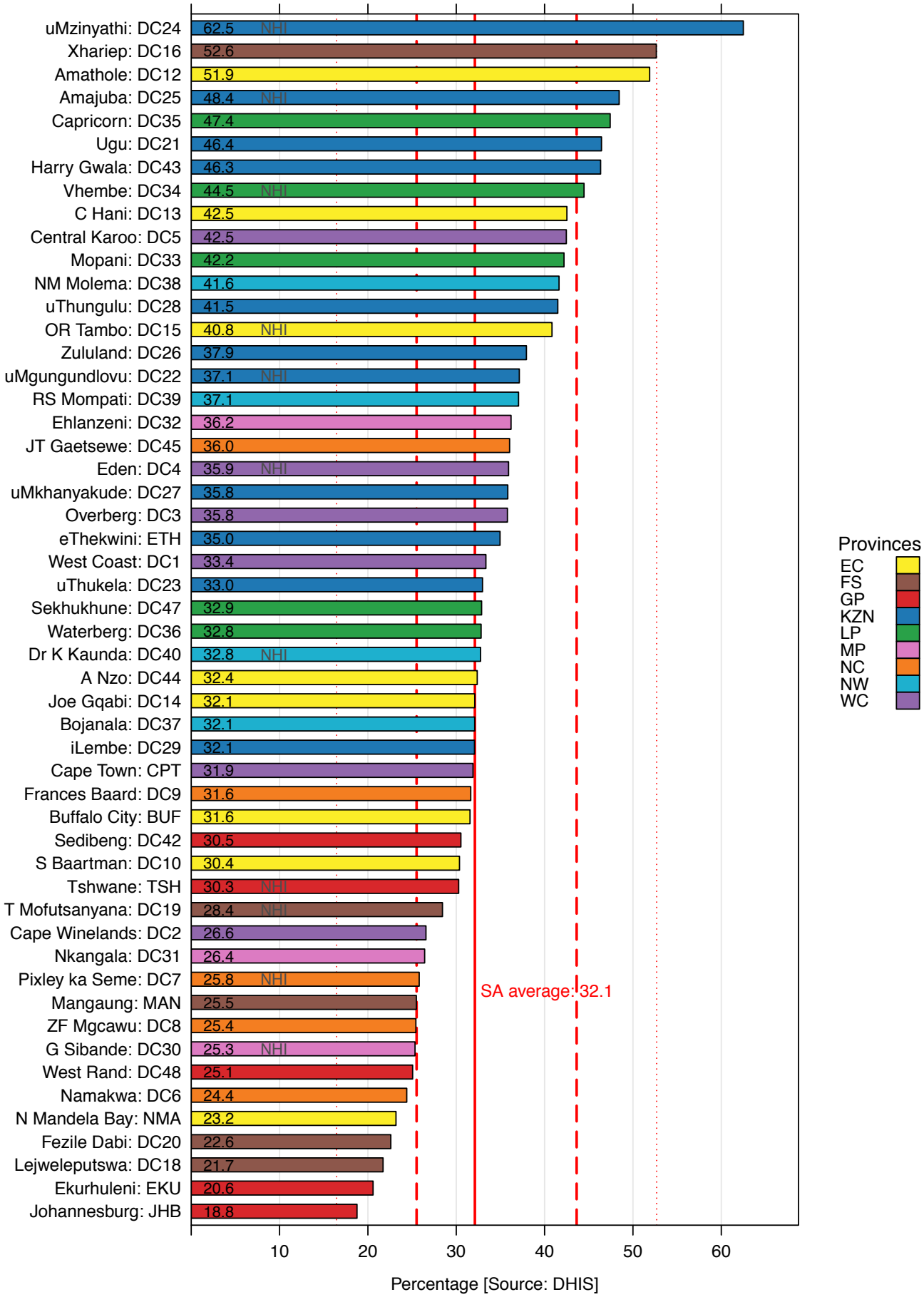
Figure 6: HIV testing coverage (including antenatal care) by province, 2014/15



Twenty-nine districts had coverage above the national average of 32.1%; 10 of these districts were in KwaZulu-Natal (Figure 7 and Map 2). In 2014/15, three districts reached an HIV testing coverage of more than 50%. These were uMzinyathi (KZN) at 62.5%, Xhariep (NC) at 52.6%, and Amathole (Eastern Cape (EC)) at 51.9%. The lowest coverage for districts with a complete year of data was 18.8% in Johannesburg (GP). There was some inter-district variation in performance among the NHI pilot districts; however, it is pleasing to see that six of the 11 NHI districts achieved HIV testing coverage above the national average of 32.1% (Figure 8).

Early trend data in Figure 9 indicate that there is a general increase in HIV testing coverage. However, 14 districts recorded decreases in performance over the period from 2013/14 to 2014/15, with the highest drop occurring in three districts in the Free State, namely Fezile Dabi (from 31.0% to 22.6%), Lejweleputswa (from 29.0% to 21.7%), and Thabo Mofutsanyane (from 35.0% to 28.4%), followed by Harry Gwala (from 52.8% to 46.3%) in KwaZulu-Natal. Efforts to increase HIV testing coverage in these districts should be prioritised.

Figure 7: HIV testing coverage (including antenatal care) by district, 2014/15



Map 2: HIV testing coverage (including antenatal care) by sub-district, 2014/15

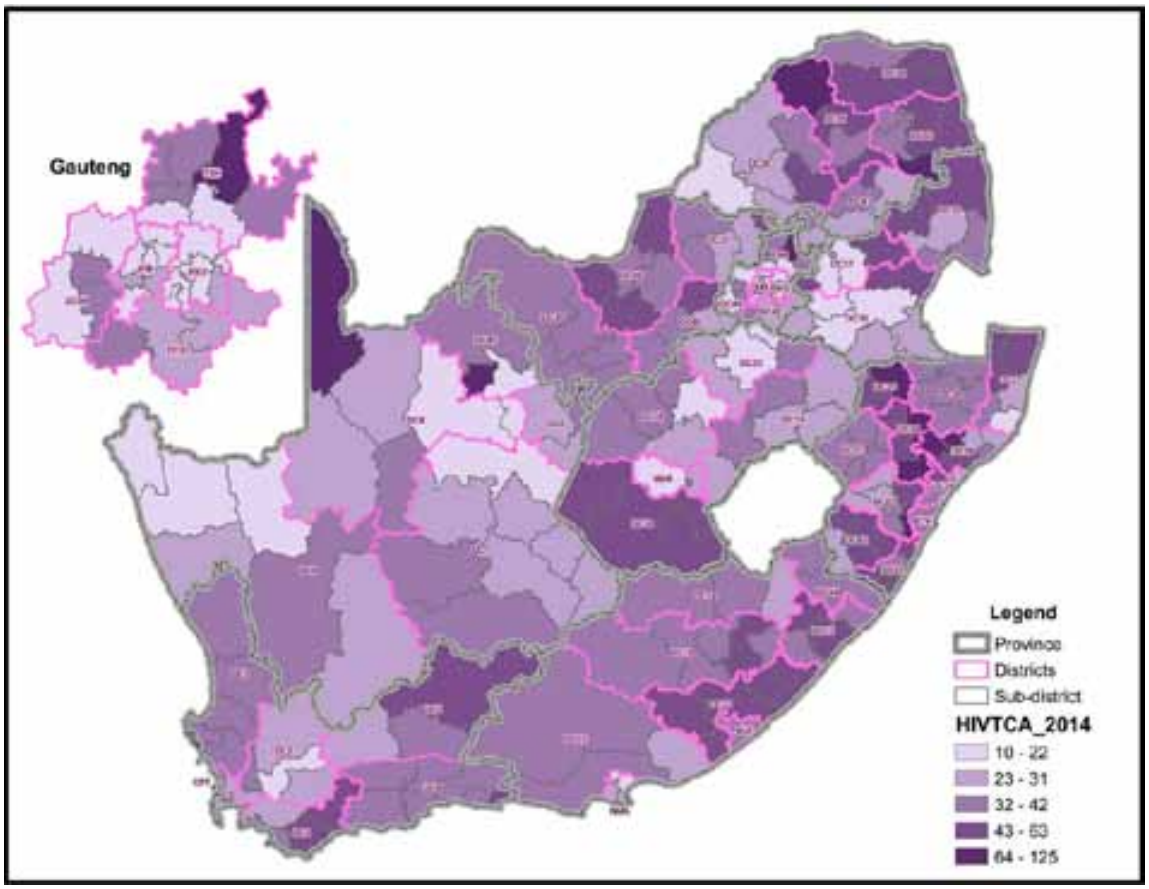


Figure 8: HIV testing coverage (including antenatal care) by NHI district, 2014/15

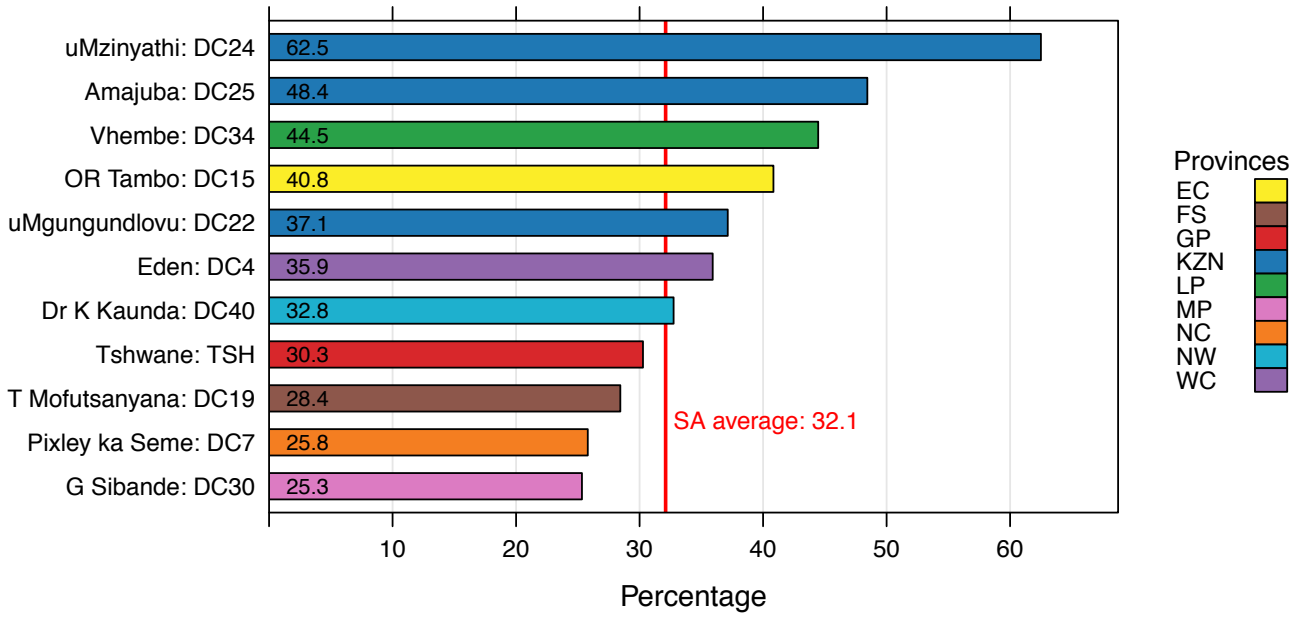
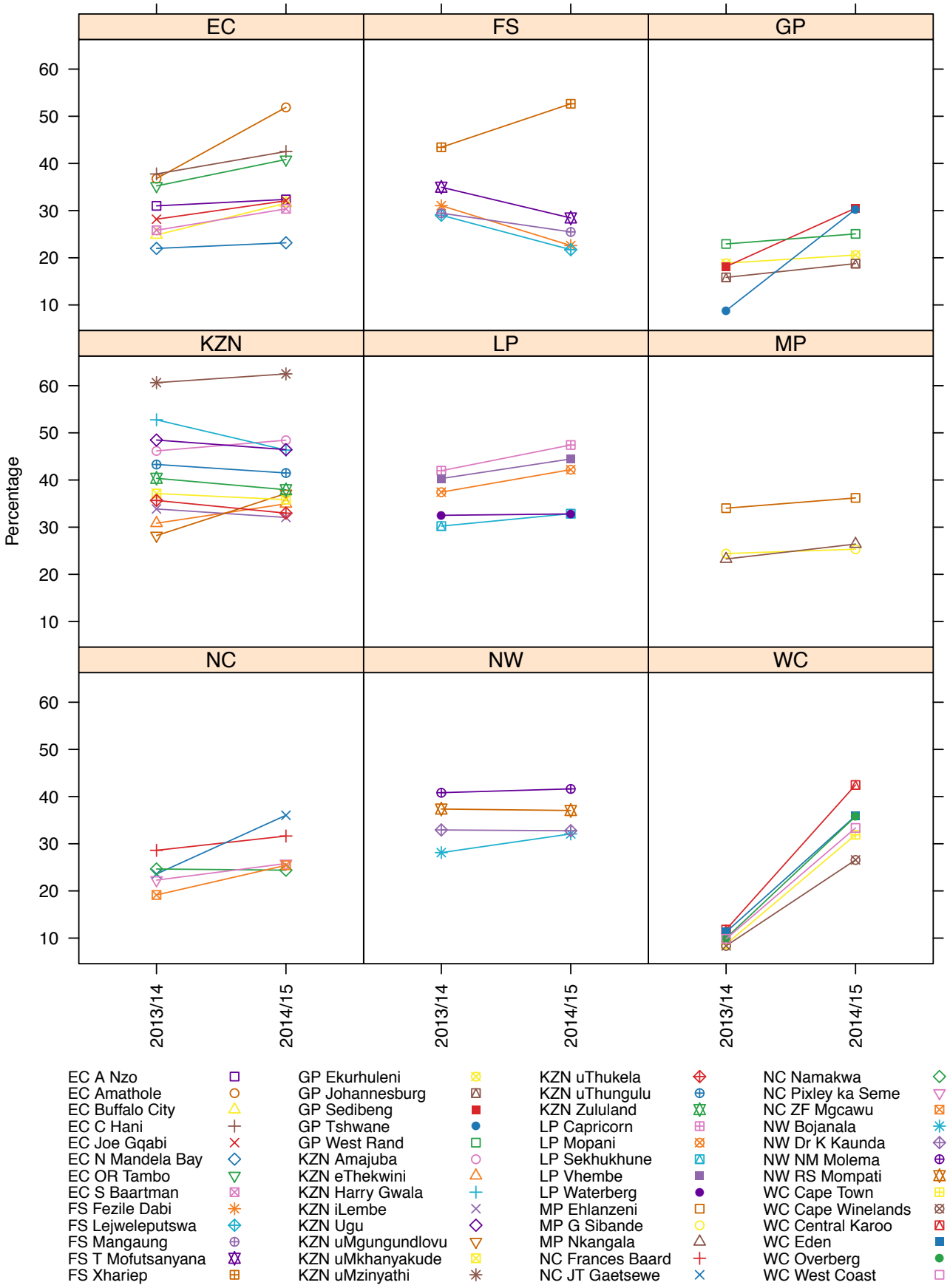


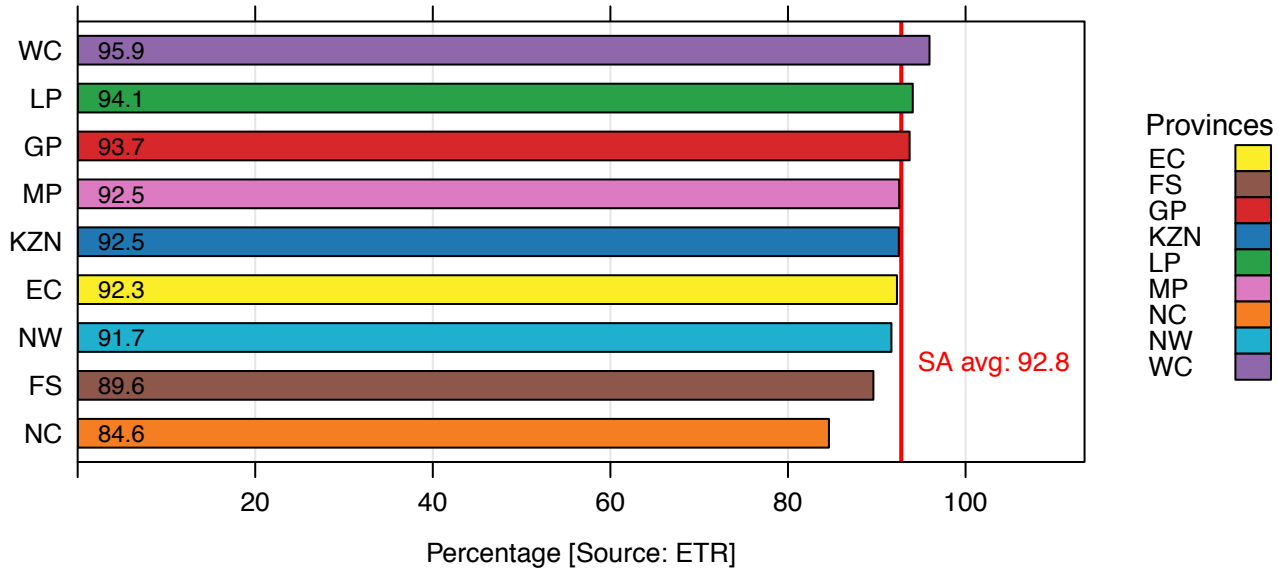
Figure 9: Annual trends: HIV testing coverage (including antenatal care)



10.3 Percentage of TB cases with known HIV status

This indicator measures the percentage of TB cases with known HIV status entered into the ETR.Net system. The national rate more than doubled from 43.6% in 2008 to 92.8% in 2014. Provincial rates varied between 84.6% in the Northern Cape and 95.9% in the Western Cape. Three provinces, namely the Western Cape, Limpopo and Gauteng, exceeded the national average of 92.8%, as shown in Figure 10.

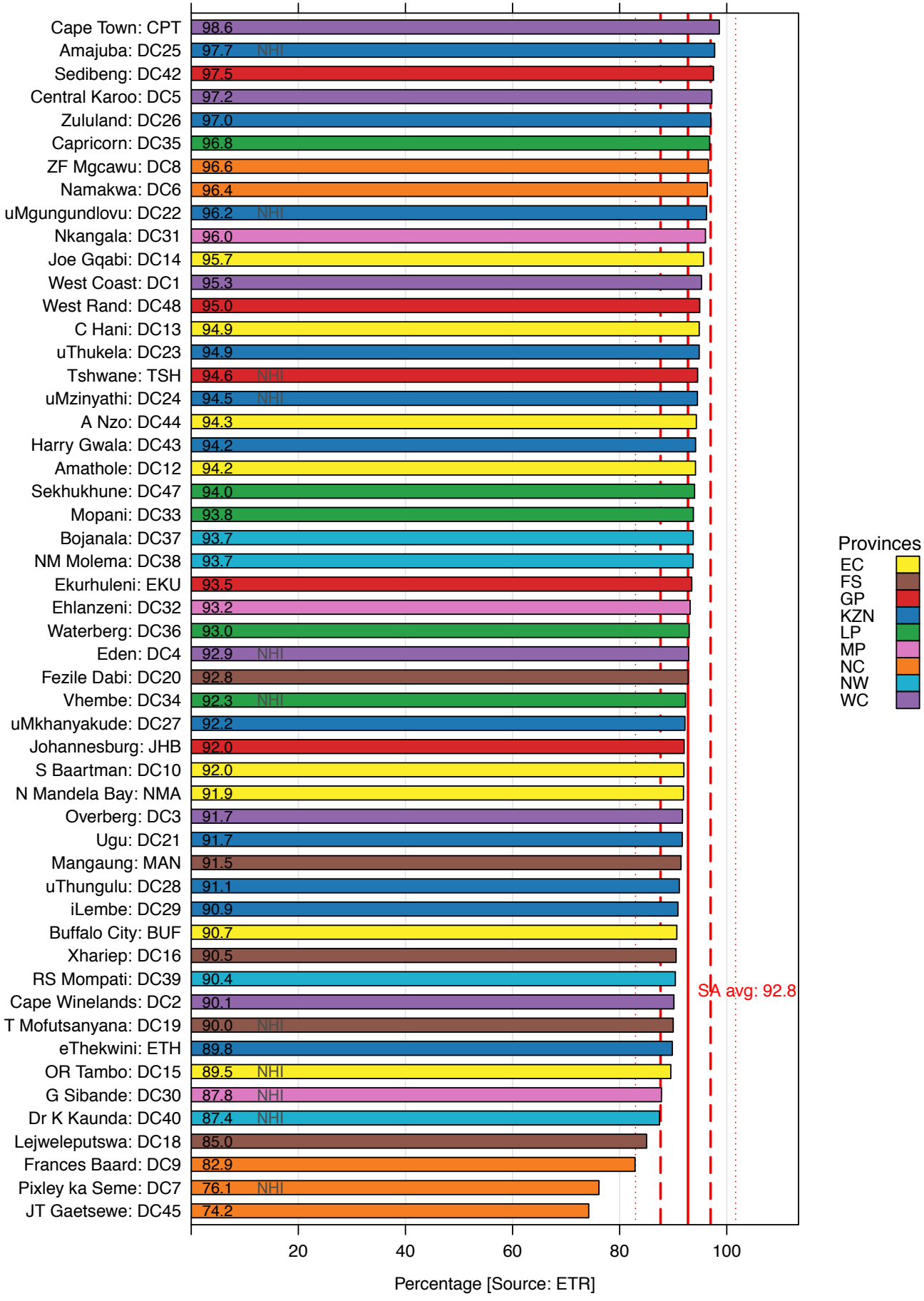
Figure 10: Percentage of TB cases with known HIV status by province, 2014



Cape Town (WC) has the highest percentage of TB cases with known HIV status (98.6%), followed by Amajuba (KZN) (97.7%) (the highest among the NHI districts), Sedibeng (GP) (97.5%), Central Karoo (WC) (97.2%) and Zululand (KZN) (97.0%). Three Northern Cape districts were among those with the lowest percentages, namely Frances Baard (82.9%), Pixley ka Seme (76.1%) (the lowest among the NHI districts), and John Taolo Gaetsewe (74.2%) (Figure 11 and Map 3).

Virtually all districts reflected improvements in knowledge of the HIV status of TB patients, with the trends from 2008 to 2014 shown in Figure 12. The percentage of TB cases with known HIV status by socio-economic quintile seems to be fairly even (Figure 13).

Figure 11: Percentage of TB cases with known HIV status by district, 2014



Map 3: Percentage of TB cases with known HIV status by district, 2014

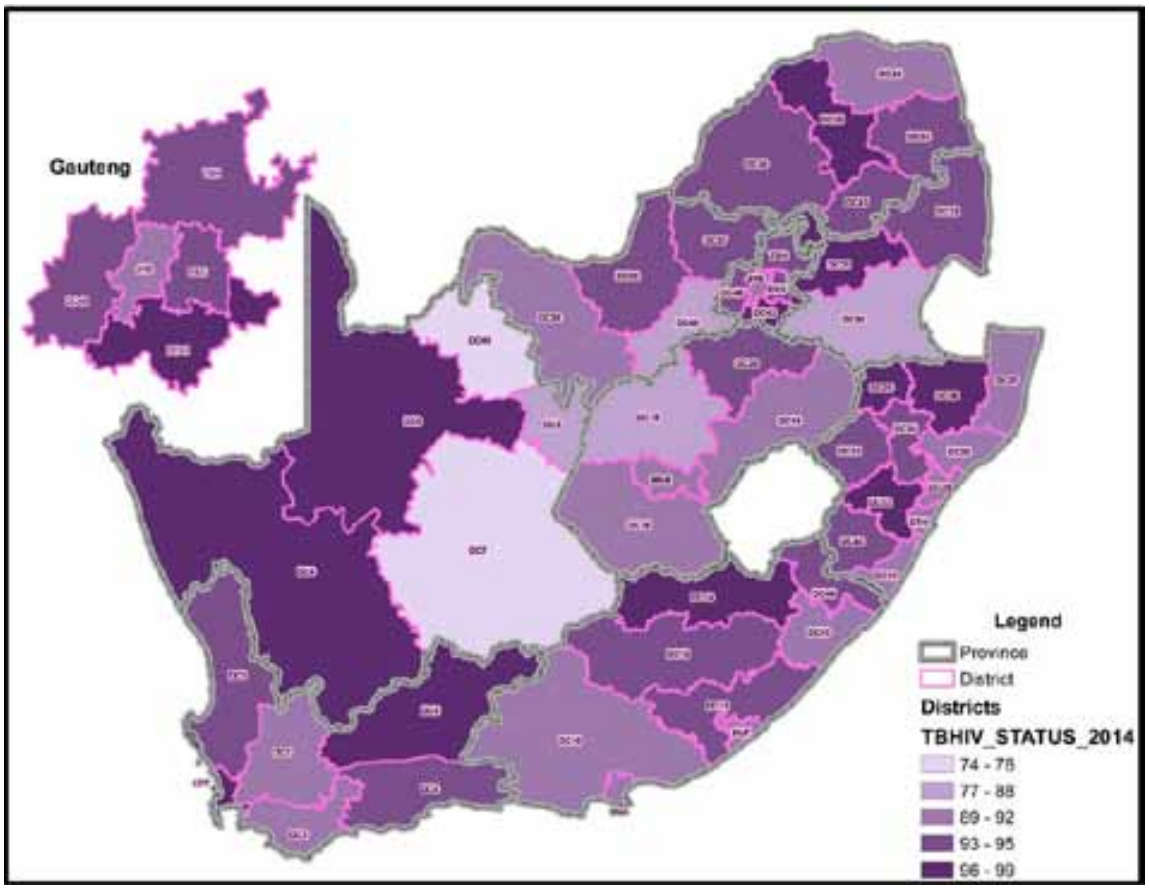


Figure 12: Annual trends: Percentage of TB cases with known HIV status by district

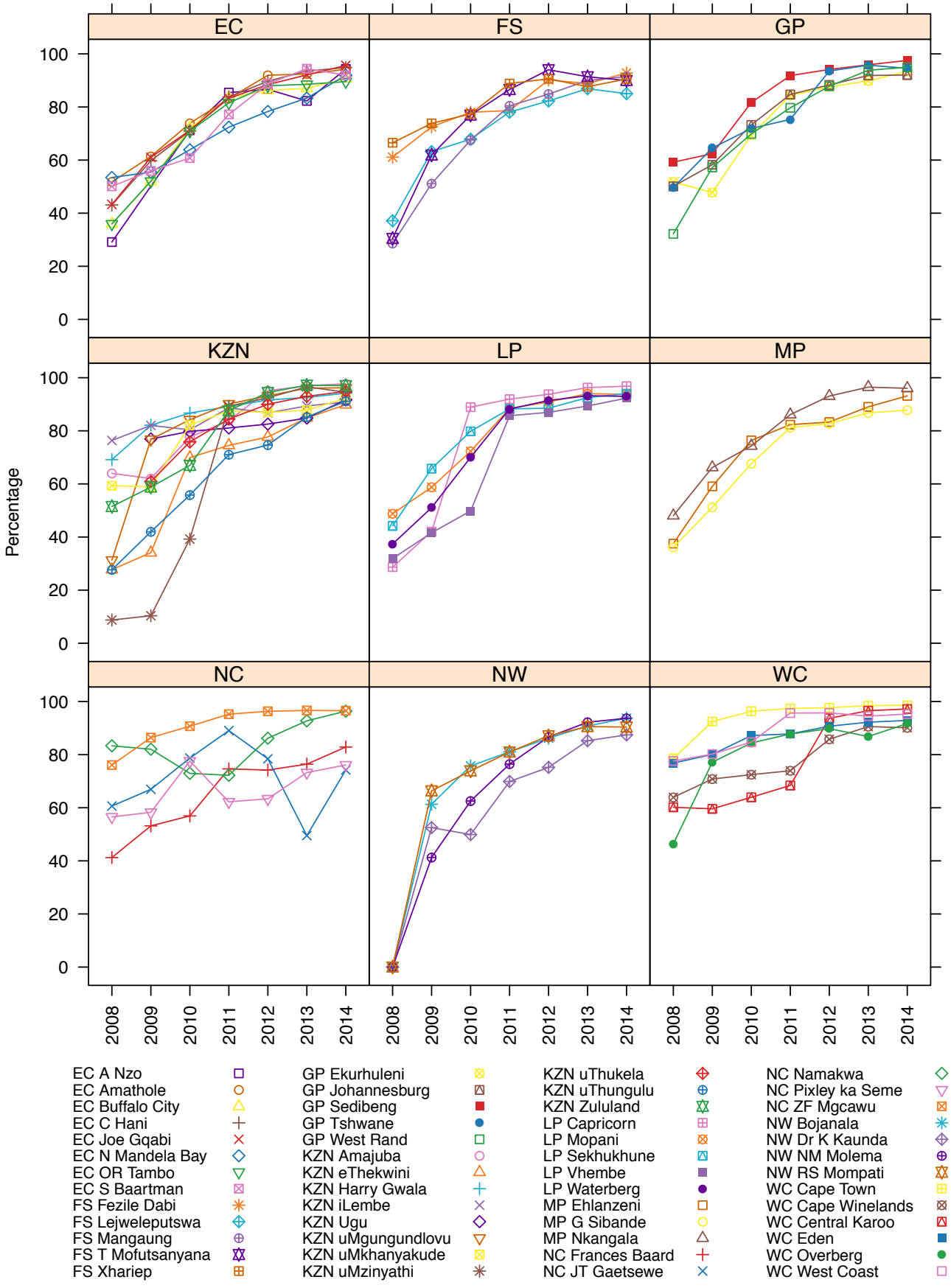
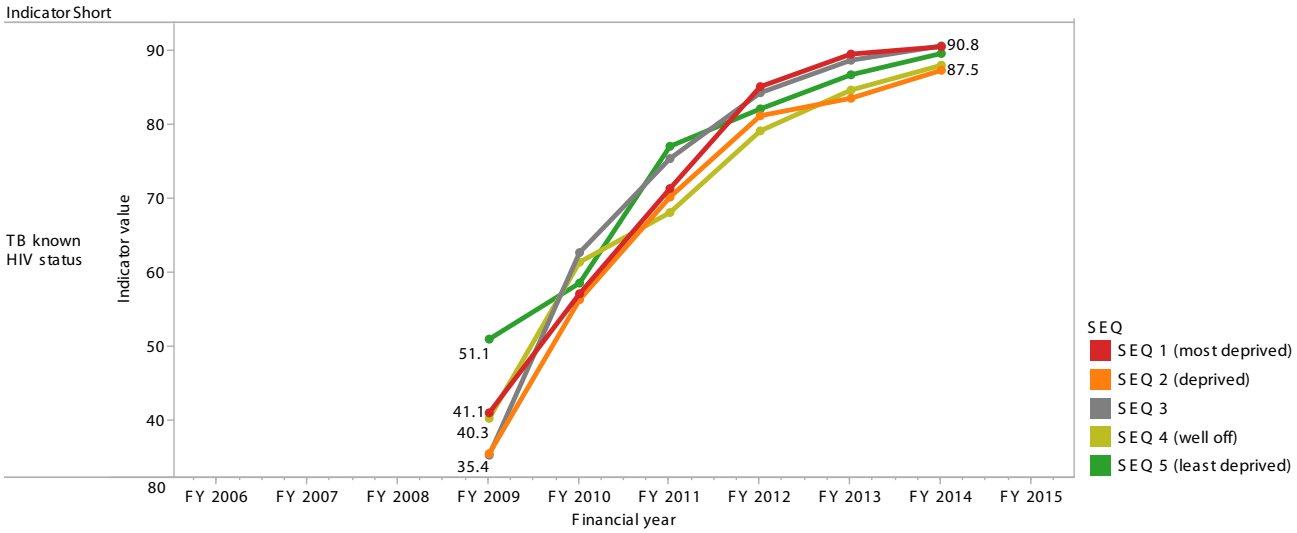


Figure 13: Trends in average district values by SEQ for percentage of TB cases with known HIV status



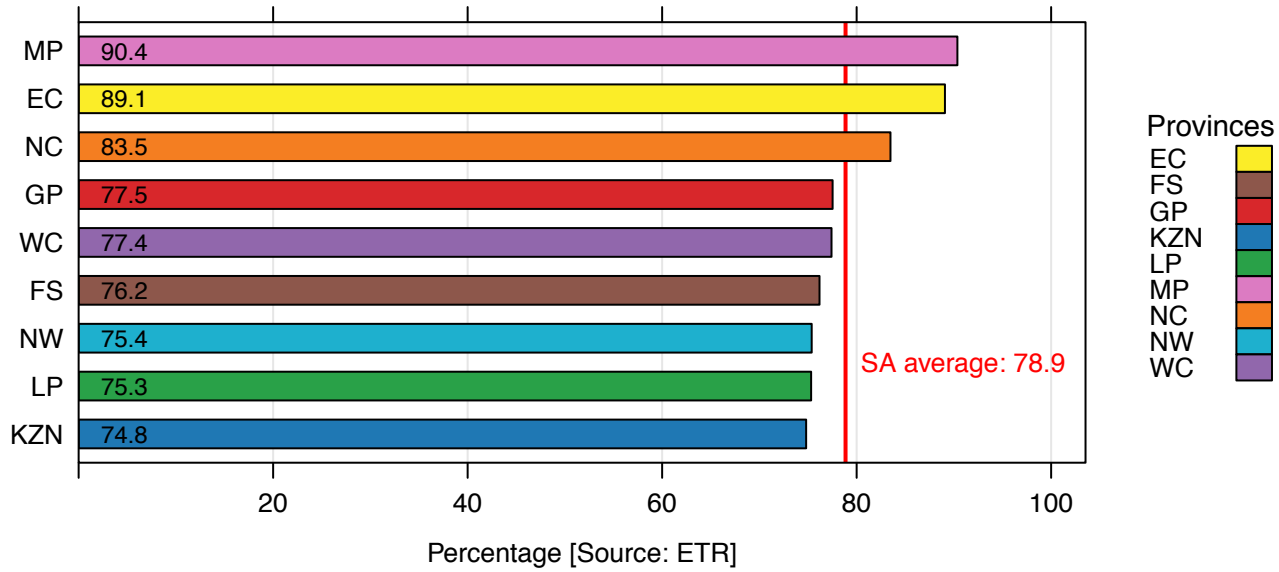
10.4 TB/HIV co-infected client on ART rate

The TB/HIV co-infected client on ART indicator entered into the ETR.Net system measures the percentage of all HIV-positive TB patients on ART. It is an important indicator that may be used as a proxy for measuring integration of HIV and TB services.

The national average has increased steadily, from 28.0% in 2011 to the current 2014 average at 78.9%. Mpumalanga had the highest rate at 90.4% and KwaZulu-Natal the lowest rate at 74.8%. Only three provinces exceeded the national average of 78.9%, namely Mpumalanga, Eastern Cape and Northern Cape (Figure 14).

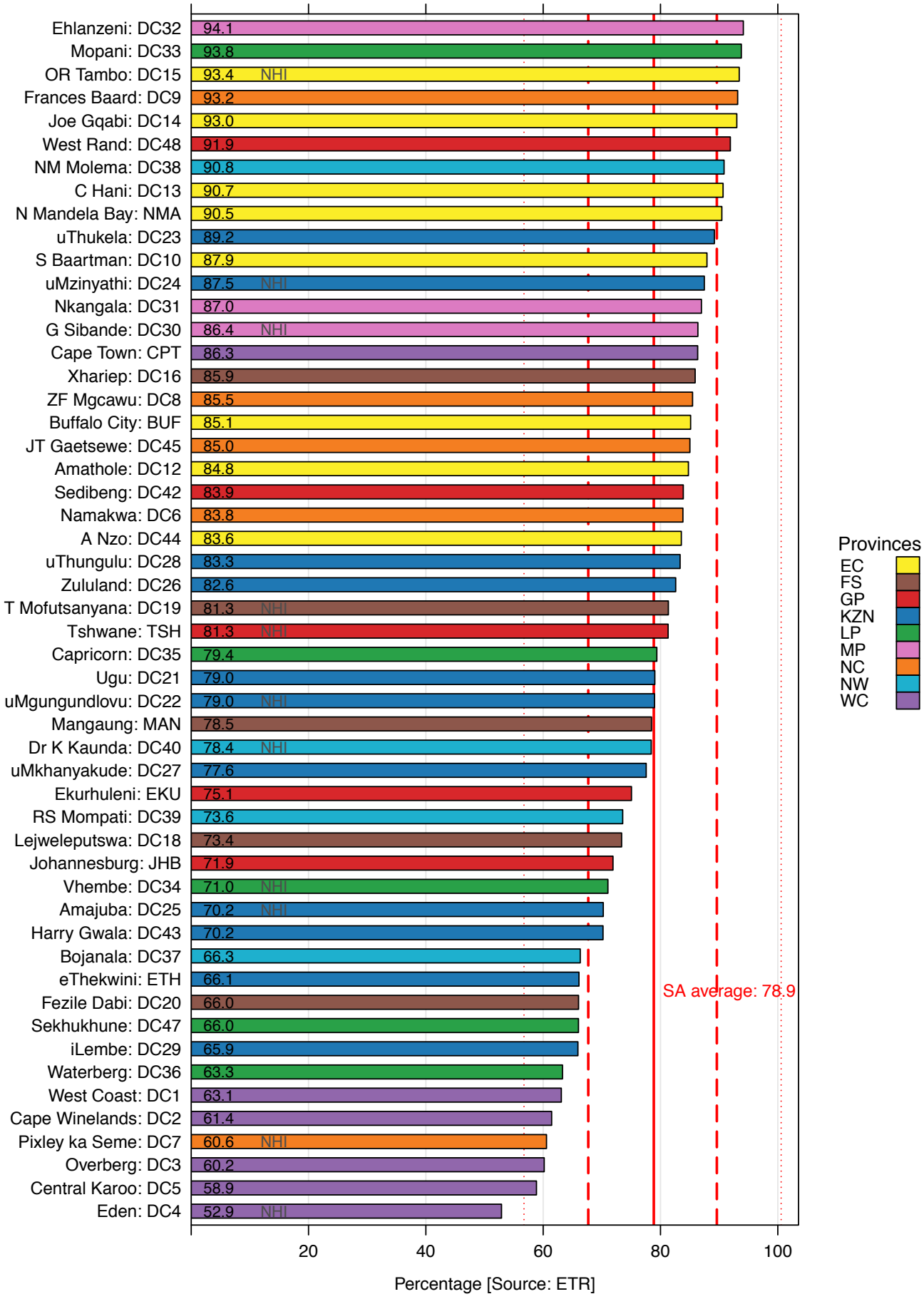
It is concerning that KwaZulu-Natal has performed the poorest as it is also the province with the highest HIV and TB infection rates in the country. This is largely due to the influence of eThekwini (66.1%) on the average.

Figure 14: TB/HIV co-infected client on ART rate by province, 2014

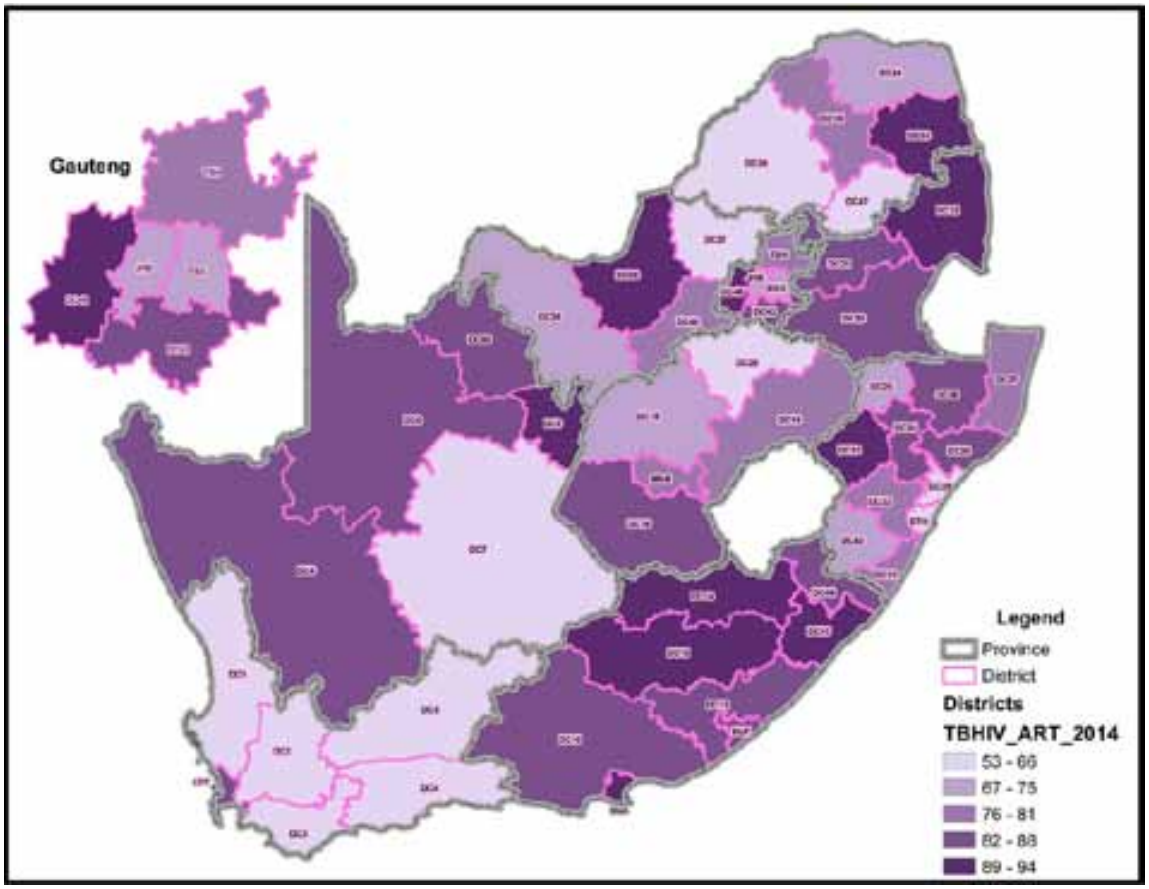


The district with the highest rate was Ehlanzeni (MP), which had a more than two-fold increase from 41.6% in 2013 to 94.1% in 2014. Eden (WC) had the lowest rate at only 52.9%. Twenty-two districts had a rate lower than the national average, including five of the six districts in the Western Cape. Four of the nine districts with a rate 90% and above were from the Eastern Cape (Figure 15 and Map 4).

Figure 15: TB/HIV co-infected client on ART rate by district, 2014

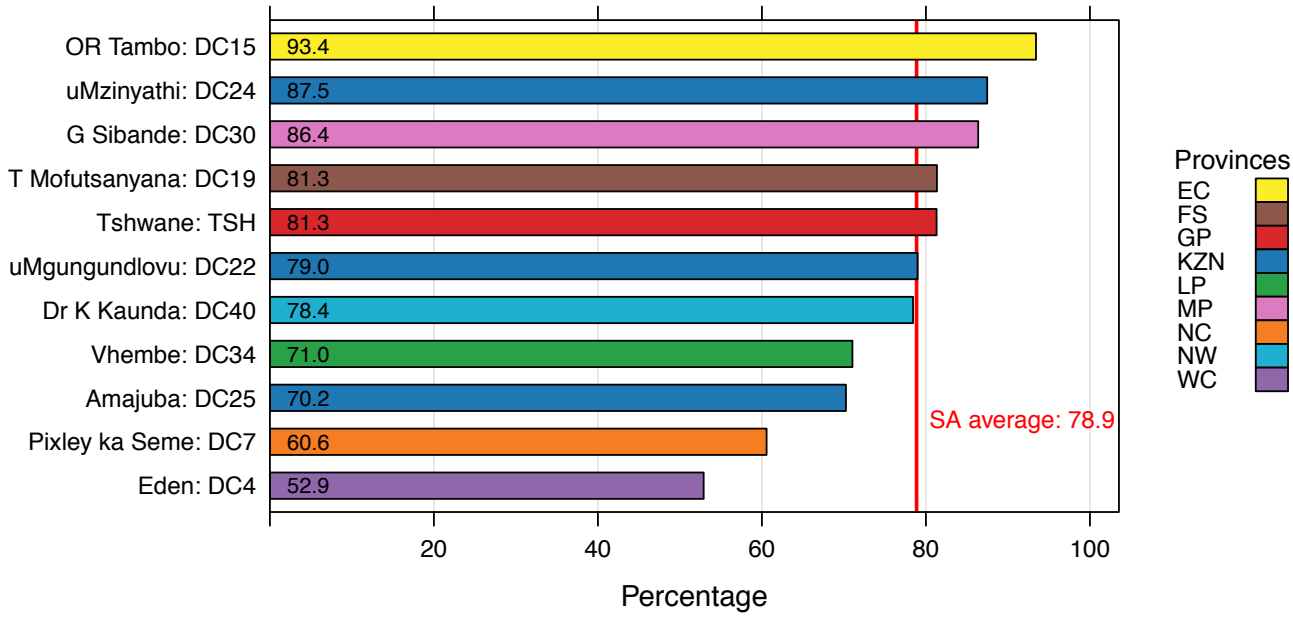


Map 4: TB/HIV co-infected client on ART rate by district, 2014



The NHI district with the best performance was OR Tambo (EC) at 93.4%. Eden (WC) had the lowest rate at 52.9%. Four districts had a rate below the national average (Figure 16).

Figure 16: TB/HIV co-infected client on ART rate by NHI district, 2014



Ehlanzeni in Mpumalanga had the biggest increase in rate between 2013 and 2014 of 38.5 percentage points (from 55.6% to 94.1%). Eighteen districts had a drop in rate during the same period, with the highest decline in Fezile Dabi (FS) of 9 percentage points, followed by the Cape Winelands (WC), Pixley ka Seme (NC) and Eden (WC), all with a drop of more than 8 percentage points.

Figure 17 shows steep upward data trends across most districts between 2011 and 2012, with continuing upward trends in most districts through 2013 and 2014. However, many of the districts in the Free State and the Western Cape had declines between 2013 and 2014, which needs to be investigated further. Figure 18 shows the TB/HIV co-infected client on ART rate by socio-economic quintile. Coverage was highest in SEQ1 and SEQ4 and lowest in SEQ3.

Figure 17: Annual trends: TB/HIV co-infected client on ART rate

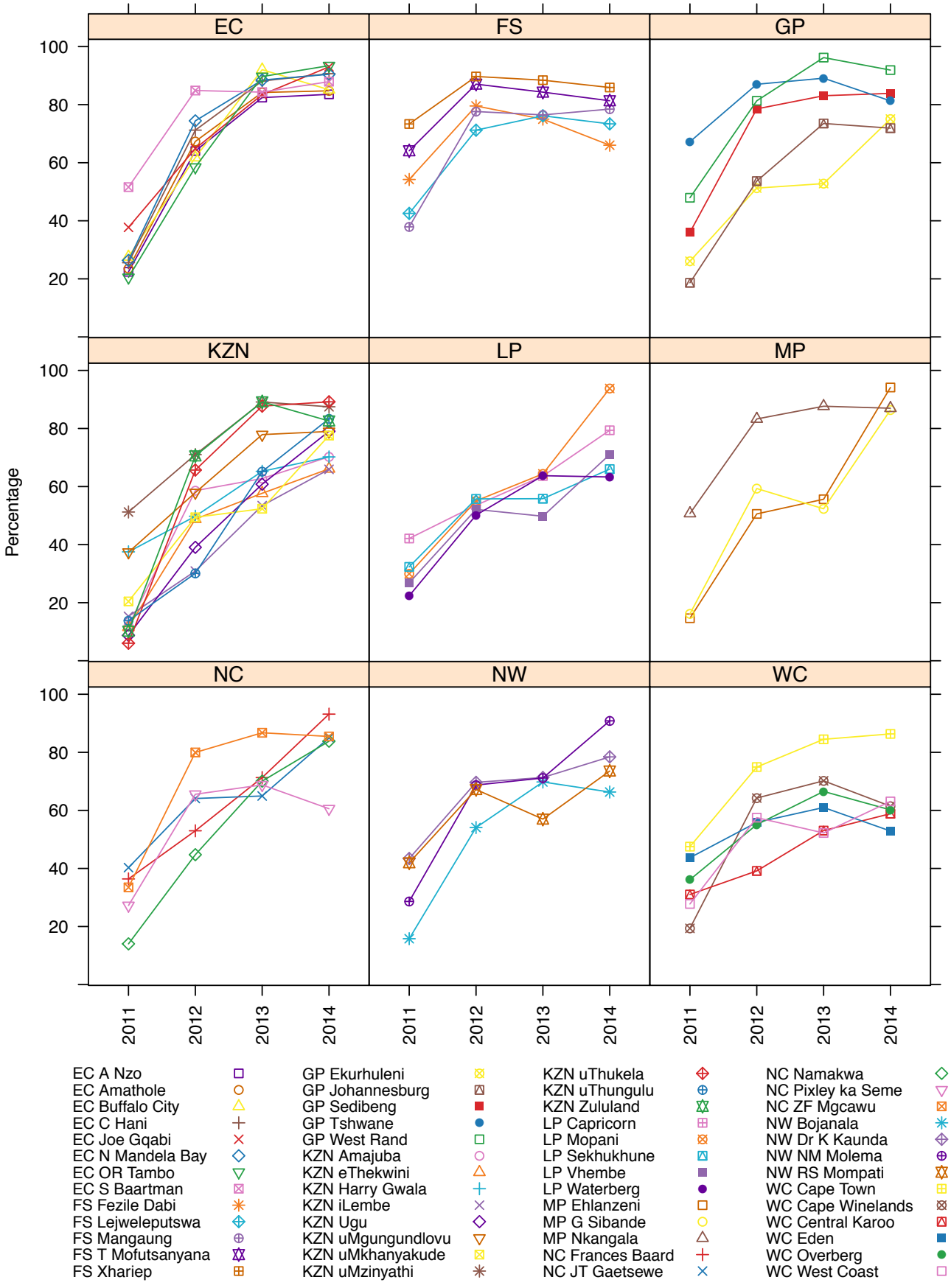


Figure 18: Trends in average district values by SEQ for TB/HIV co-infected client on ART rate