

## 5. Outcome Indicators

### 5.1 Incidence of New Sexually Transmitted Infections

Marion Stevens

This indicator measures the percentage of people 15 years and older who have been treated for a new episode of a sexually transmitted infection (STI). In other words an STI incidence of 5% means that for every 100 people fifteen years and older, during the year under review, five of them were treated in the public sector clinics for a new episode of STI.

The average STI incidence in SA during 2007/08 was 4.4%, a decrease of 0.6 percentage points from 2006/7. The general trend over eight years in all provinces is downward. The average rate in the rural districts improved from 6.0% in 2006/07 to 5.4% in 2007/08. The incidence rates in the metro districts also decreased from 4.7% in 2006/07 to 3.9% in 2007/08.

#### District View

Of all the districts, Namakwa (NC) had the lowest incidence of STIs (1.5%), while Vhembe (LP) had the highest at 8.0%. Most of the districts in KZN had high incidences of STIs, well above the national average for the past eight years. Overall the incidence in Gauteng decreased from 4.3% in 2006/07 to 3.5% in 2007/08. All the districts in the North West, Gauteng, Mpumalanga and Free State showed an improvement in STI incidence, while incidence in the Western Cape has remained the lowest in the country.

Map 17: Incidence of new STIs treated by district in South Africa, 2007/08

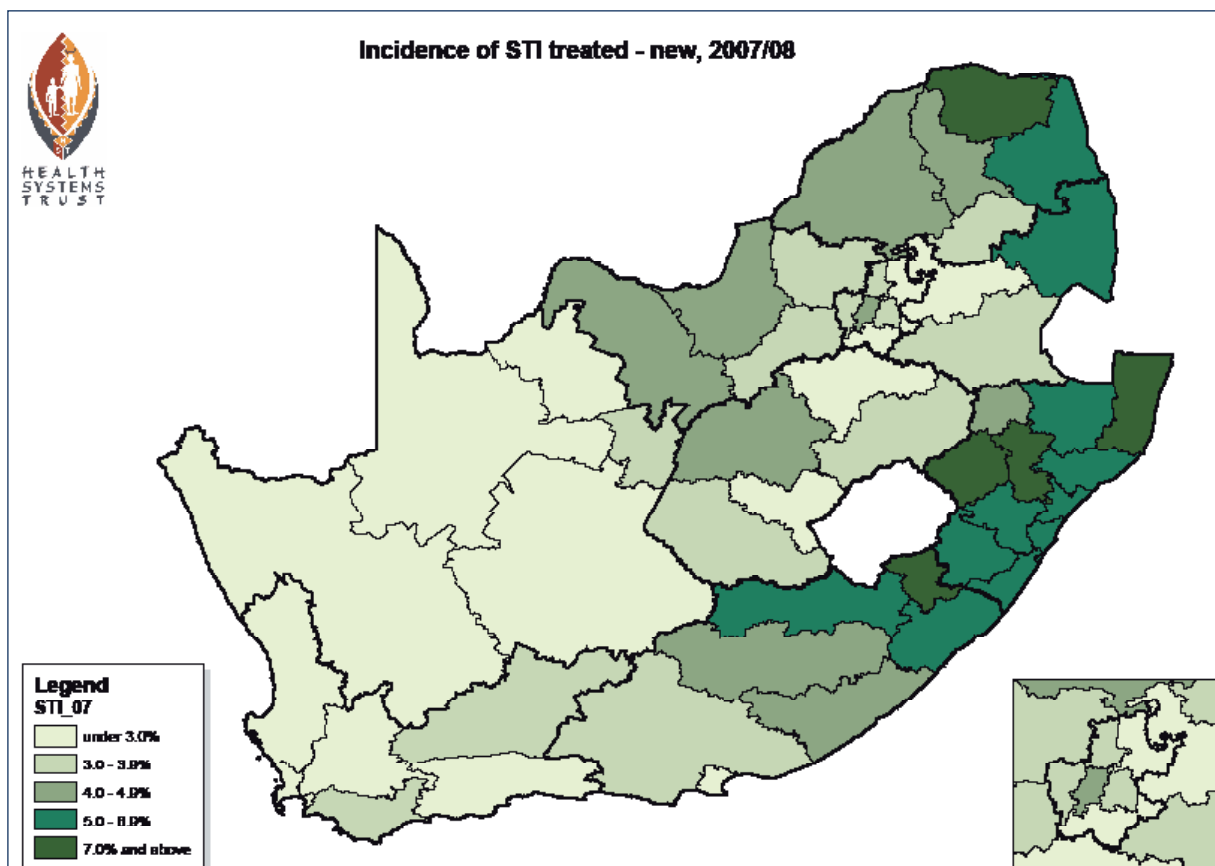
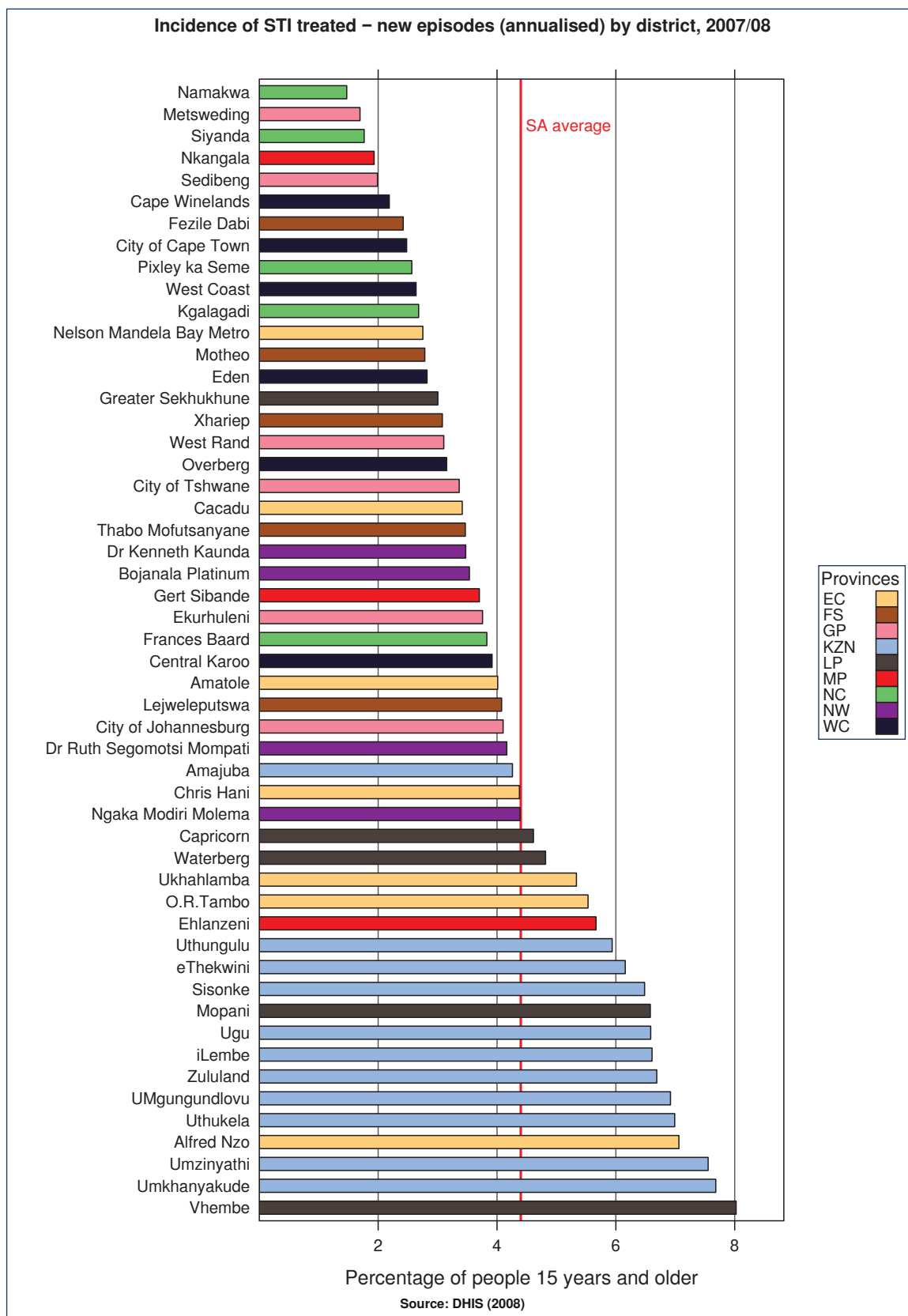


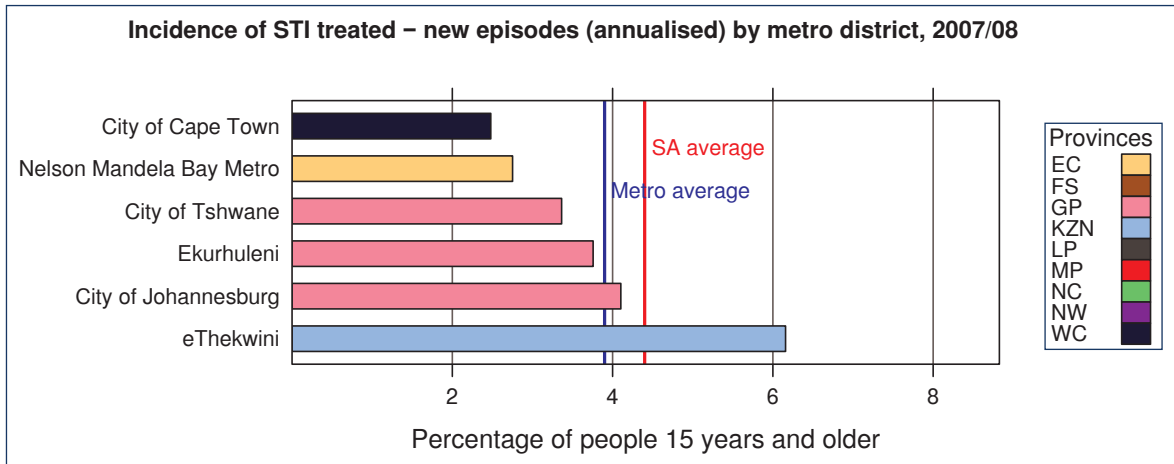
Figure 83: Incidence of new STIs treated by district, 2007/08



**Metro View**

The metro average was below the SA average and decreased from 4.7% in 2006/07 to 3.9% in 2007/08. eThekweni continued to have the highest STI incidence among the metros of 6.2% compared with the metro with the lowest incidence, City of Cape Town, which was nearly three times lower at 2.5%.

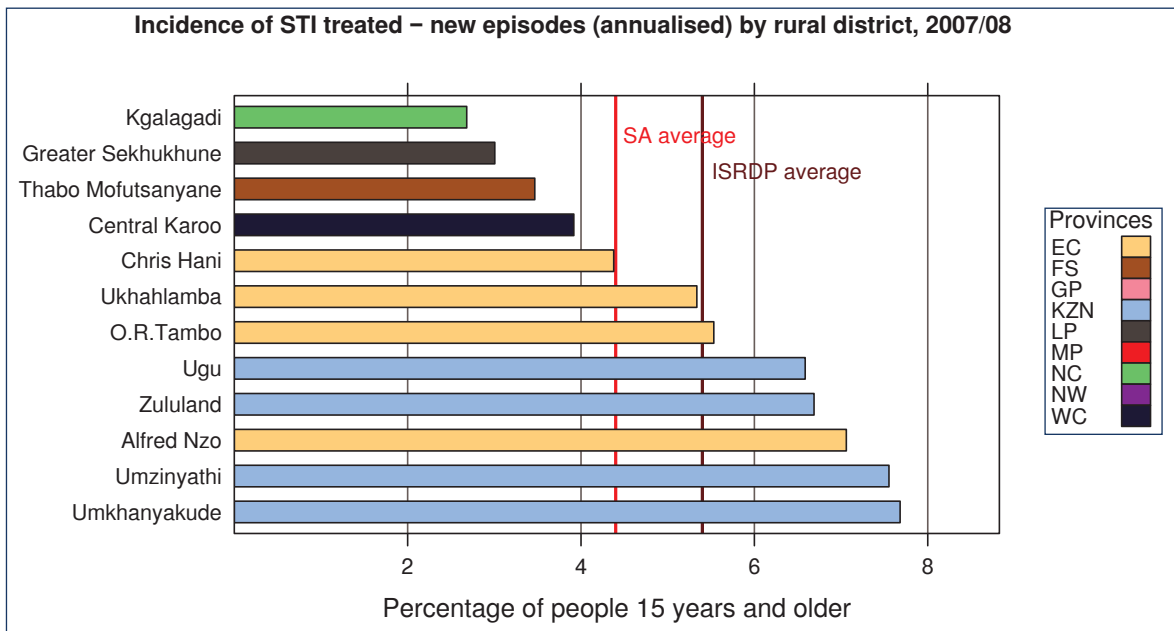
**Figure 84: Incidence of new STIs treated by metro district, 2007/08**



**Rural Nodes**

The average incidence of STIs in the rural nodes in 2007/08 was 5.4%. Most of the rural nodes had a reported a STI incidence greater than the South African average.

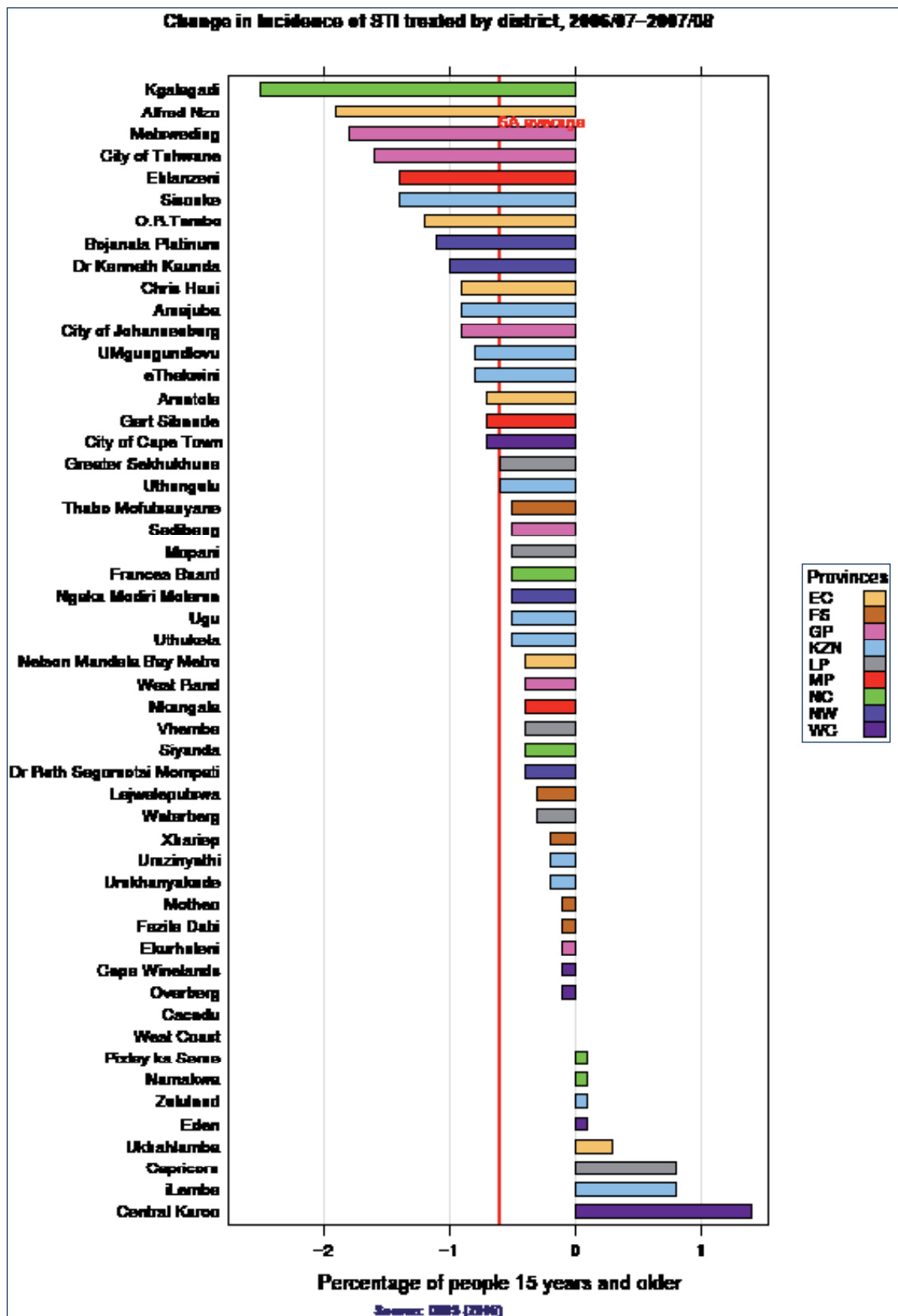
**Figure 85: Incidence of new STIs treated by rural district, 2007/08**



**Change and trends in STI incidence**

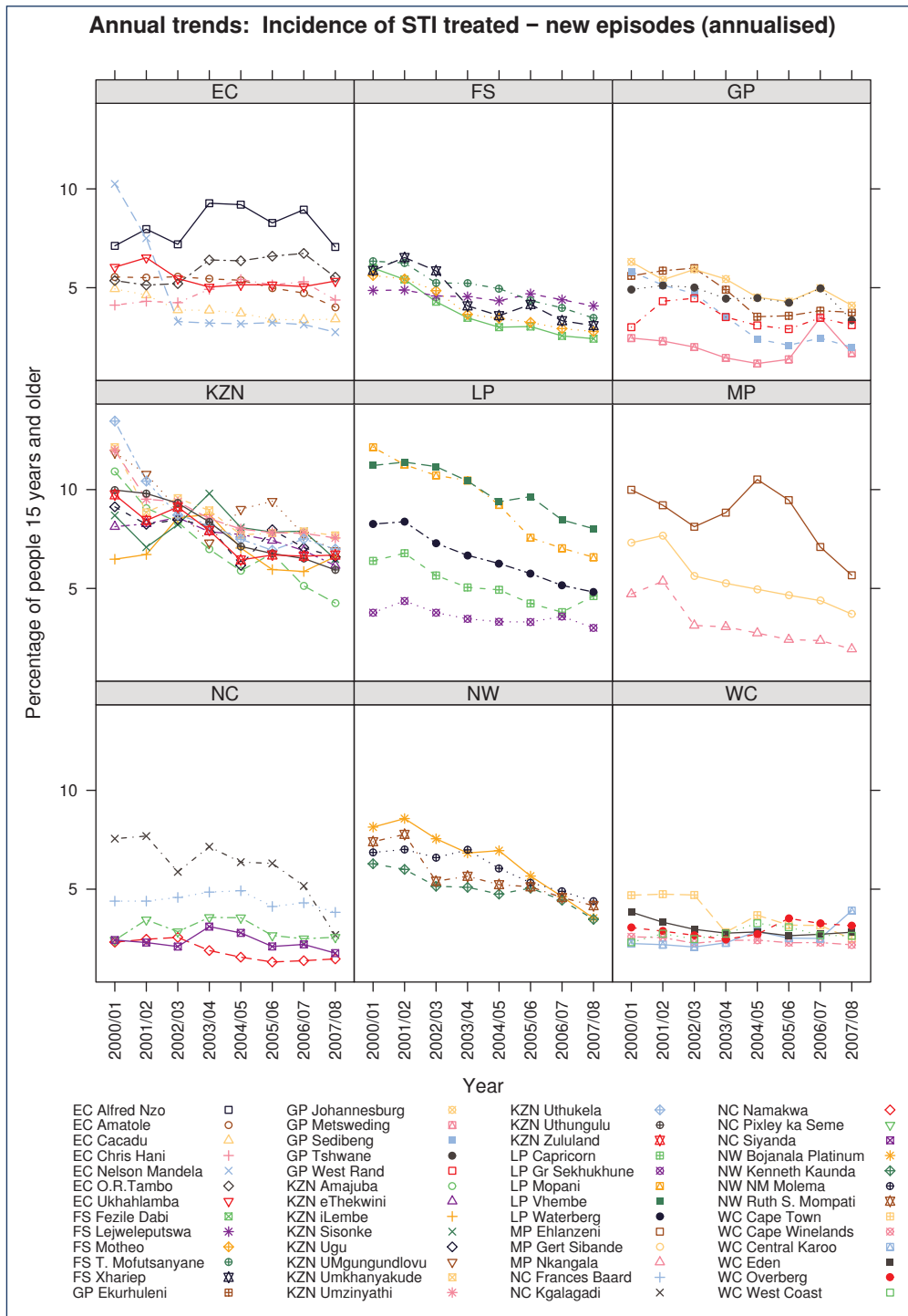
The STI incidence rates in most districts dropped from the previous year. The Central Karoo (WC) had the highest increase of incidence of all districts by 1.4 percentage points from 2.5% in 2006/07 to 3.9% in 2007/08. Kgalagadi (NC) had the largest decrease of 2.5 percentage points of all districts in the country from 5.2% in 2006/07 to 2.7% in 2007/08, although this may be due to data errors since there were substantial missing data in 2007. All the metro districts experienced a decrease in incidence, with the City of Tshwane having the greatest decrease of 1.6 percentage points from 5.0% in 2006/7 to 3.4% in 2007/08.

Figure 86: Change in incidence of new STIs treated by district, 2006/07 - 2007/08



The average incidence of STIs in the rural districts decreased from 6.0% in 2006/07 to 5.4% in 2007/08. Figure 87 shows clearly the high but declining trend over the past eight years in STI incidence amongst the KwaZulu-Natal districts, the consistently low rates in the Western Cape districts, and the wide variation amongst the Limpopo and Mpumalanga districts.

**Figure 87: Trends in the incidence of new STIs treated by province and district, 2001/02 - 2007/08**



INCIDENCE OF NEW SEXUALLY TRANSMITTED INFECTIONS

## 5.2 Tuberculosis

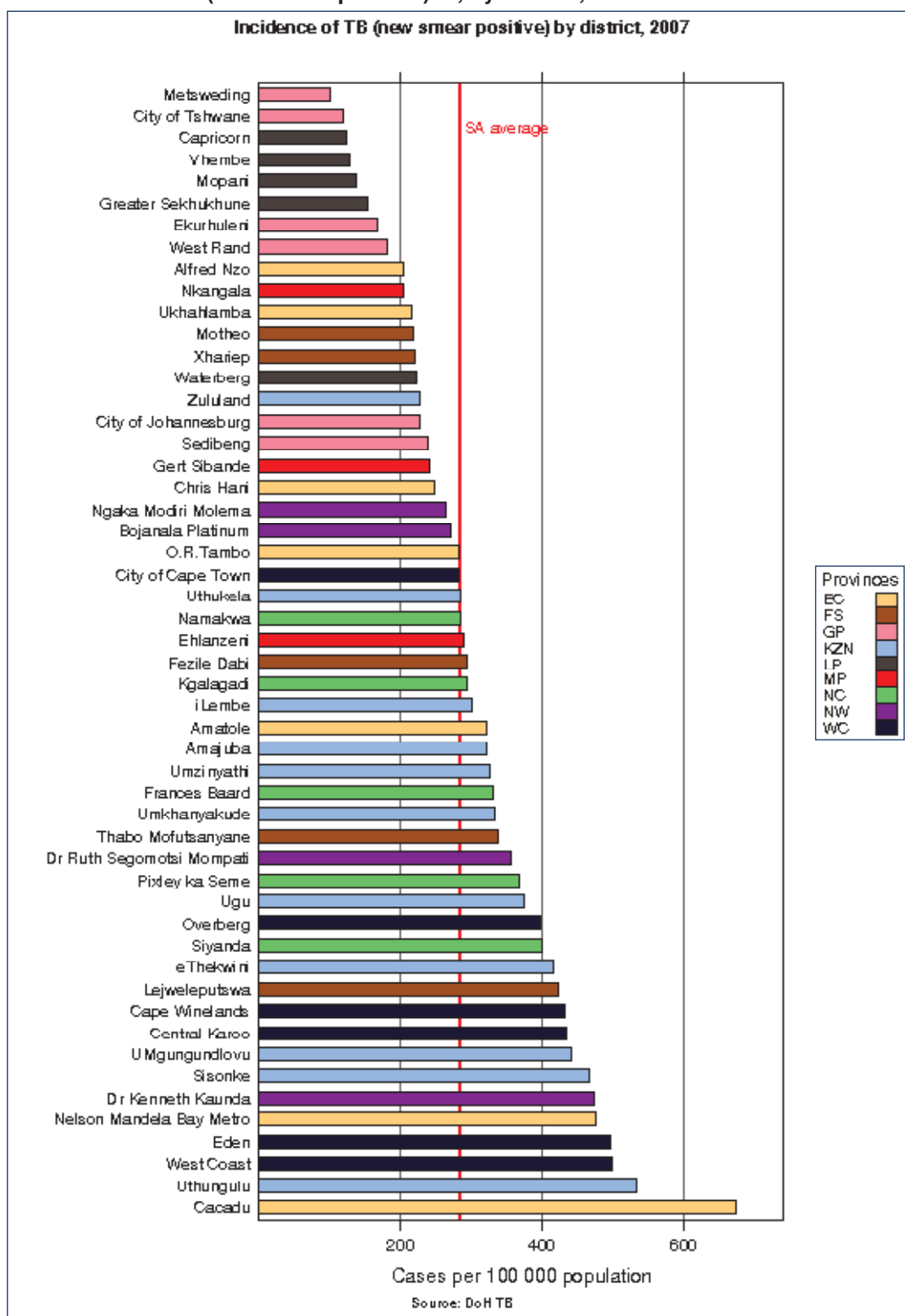
**Marian Loveday**

Tuberculosis (TB) remains a major public health issue in South Africa. Fuelled by the human immunodeficiency virus (HIV) epidemic, the TB epidemic continues to grow unabated. Over the last decade the incidence has more than doubled from 305 per 100 000 in 1997 to 740 per 100 000 in 2007<sup>29</sup>. The increasing incidence of TB has resulted in South Africa being ranked fourth in the list of 22 high burden TB countries in 2008<sup>30</sup>. In addition, the low treatment success rate has resulted in an increasing multi-drug resistant TB (MDR-TB) burden. Reducing the incidence of TB is an important Millennium Development Goal (MDG), but meeting this goal is proving difficult and appears unlikely to be achieved. The TB new smear positive incidence in South Africa in 2007 varied across the districts and ranged from 101 cases per 100 000 people in Metsweding (GP) to 673.3 cases per 100 000 in Cacadu (EC), with a national average of 283.4 per 100 000 cases, as illustrated in Figure 88.

29 National Health Department TB Directorate June 2008. URL: <http://www.hst.org.za/healthstats/16/data>

30 Global tuberculosis control: surveillance, planning, financing. WHO report 2008. Geneva: World Health Organization; 2008. URL: [http://www.who.int/tb/publications/global\\_report/2008/](http://www.who.int/tb/publications/global_report/2008/)

Figure 88: Incidence of TB (new smear positive) in, by district, 2007



Within the last year the national DoH has carried out a number of activities aimed at improving the management of TB. These include the revision of the national TB guidelines to include recent recommendations on the management of children with TB, and the diagnosis of smear-negative and extrapulmonary TB; revising the TB registers to include information on collaborative TB/HIV activities; and the training of health-care workers on infection control. Additional activities which address drug-resistant TB, such as the introduction of an MDR-TB register and training on MDR-TB for medical officers and nurses have also taken place.

Although the drug-resistant TB burden is increasing, the principle aim of the National TB Control Programme (NTCP) remains the successful treatment of new smear positive TB clients. The early detection and effective treatment of these infectious clients will reduce the number of people infected with TB in the country. Smear conversion rate and cure rate are the two indicators used to measure progress towards achieving this aim. In order to achieve the

MDGs the WHO set targets for both indicators at 85%<sup>31</sup>. These are the same targets which have been set in the 5 year strategic plan for 2007-2011<sup>32</sup>. In the Department of Health's Annual report of 2005/6, interim annual targets were set<sup>33</sup>.

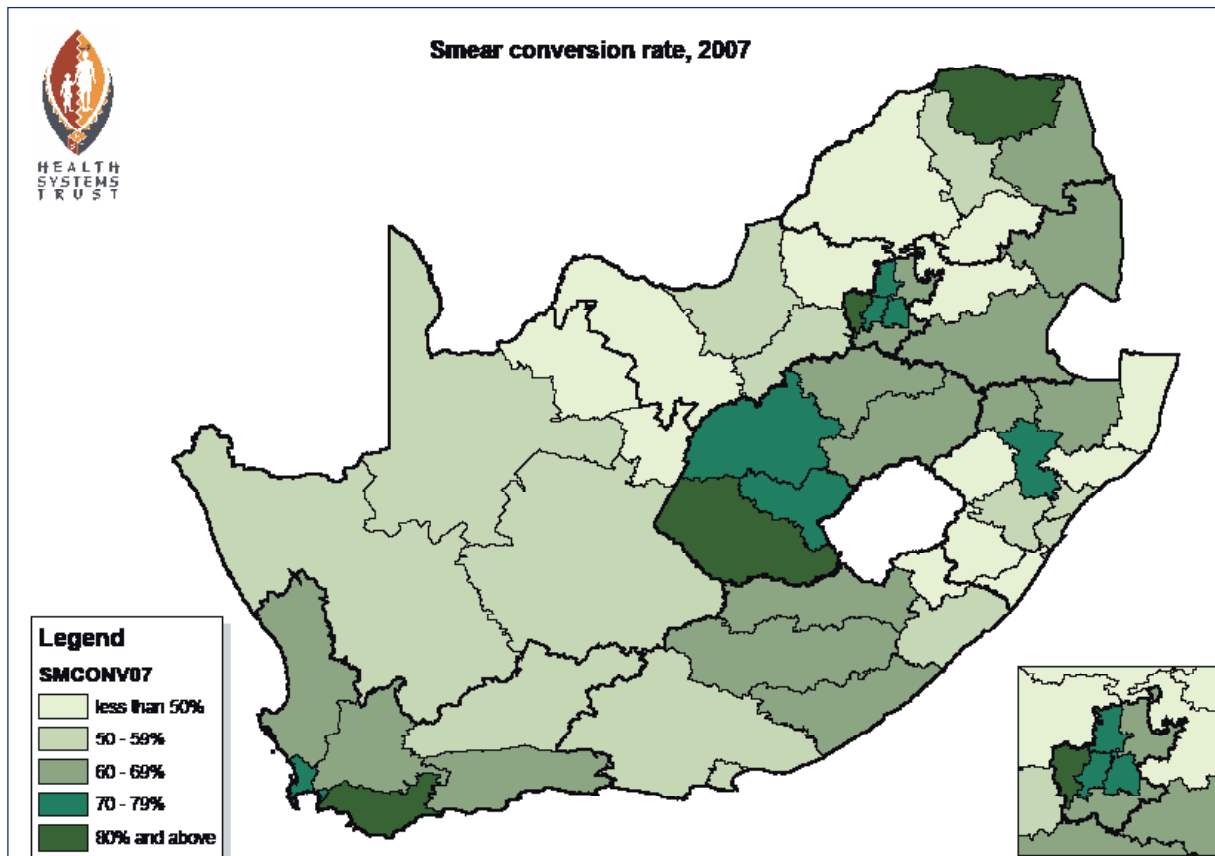
### 5.2.1 Smear conversion rate

Clients diagnosed as having "smear positive" TB have TB in the lungs and the organism that causes TB, the *Mycobacterium tuberculosis bacillus*, is seen in their sputum at diagnosis. These clients are infectious and when they cough the TB bacilli are spread out into the air and can infect others.

The smear conversion rate (SCR) is the proportion of smear positive clients who no longer have the TB bacillus in their sputum after two months of treatment and are referred to as "smear negative". As TB treatment is at least six months duration, this is an important process indicator of the effectiveness of TB treatment. It is the first indicator which will alert health workers to the failure of clients to respond to treatment and the possibility of drug-resistant TB. SCR is also a measure of the effectiveness of the health service.

The national target for SCR is 70%. In 2007 the average SCR for South Africa was 60.5% as compared with 55.8% in 2006. The slow but steady increase in SCR from 46.6% in 2004 is very encouraging. As long as this improvement continues, the national target should be attainable within a few years. The North West province showed no improvement in SCR over the last four years and is the only province with a SCR lower than 50%.

Map 18: Smear conversion rate in South Africa, 2007



#### District view

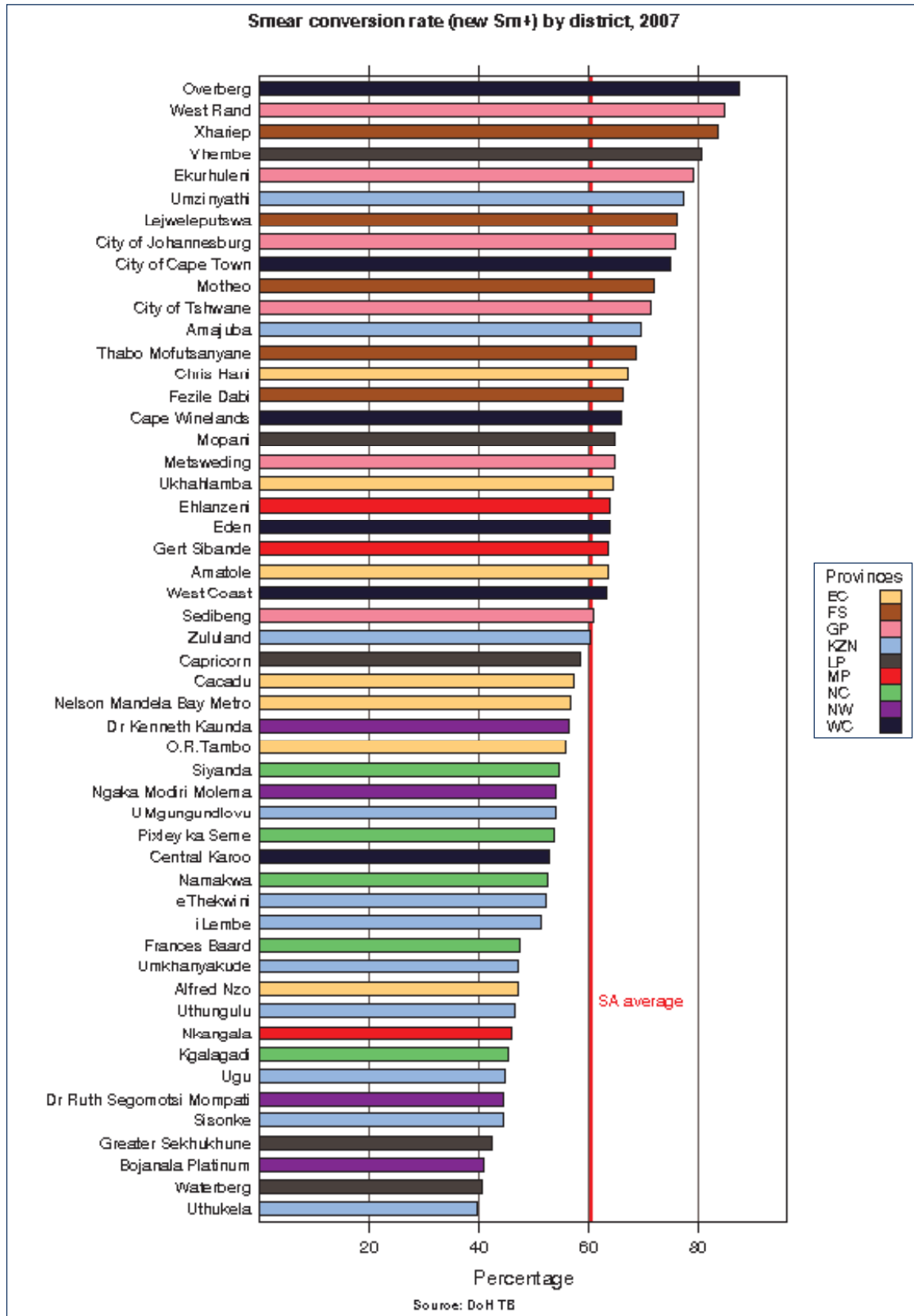
Figure 90 and map 18 illustrate the large variations in SCR across districts, ranging from a high of 88% in Overberg (WC) to a low of 39.7% in Uthukela (KZN). In 2007, 11 districts achieved SCRs higher than the interim national target of 70%. Gauteng province had the highest SCR at 75.1% with four districts above 70%. The Free State and Western Cape also achieved SCRs higher than the national target. All the districts in the North West had SCRs less than 60%.

31 Global Tuberculosis Control: surveillance, planning, financing. WHO Report 2007. Geneva, World Health Organisation. 2007. (WHO/HTM/TB.2007.376).

32 The 2007-2011 national TB plan has targets for TB cure rate and smear conversion rate set at 85%. URL: <http://www.info.gov.za/otherdocs/2007/tbstratplan.pdf>

33 Department of Health Annual Report 2005/6, page 39.

Figure 89: Smear conversion rate by district, 2007

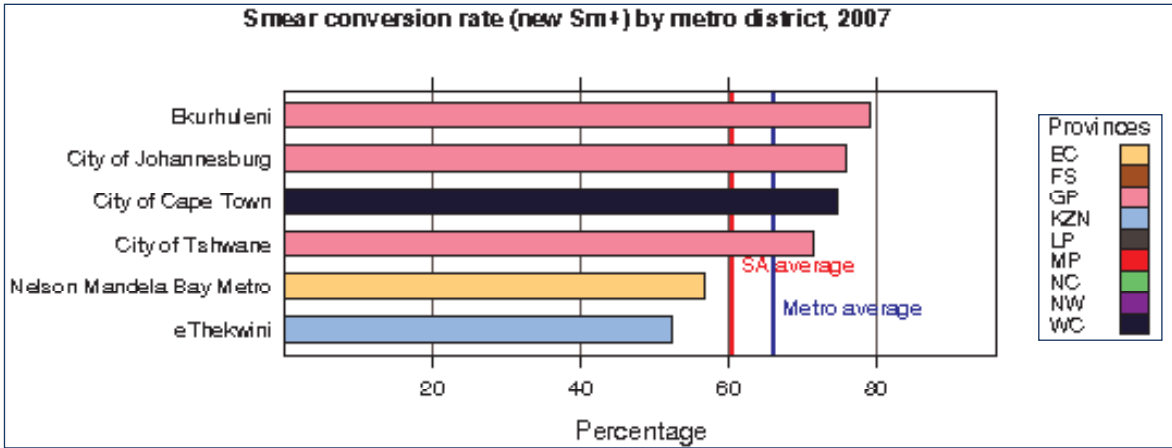


**Metro view**

Figure 90 shows that four of the six metros now have SCRs above the national target. In eThekweni (KZN) and in Nelson Mandela Bay Metro (EC), the SCRs are below the national average. However, eThekweni metro which had the highest TB caseload in the country with 38 142 TB cases diagnosed in 2007, managed an improvement in the SCR from 48.3% in 2006 to 52.3% in 2007.



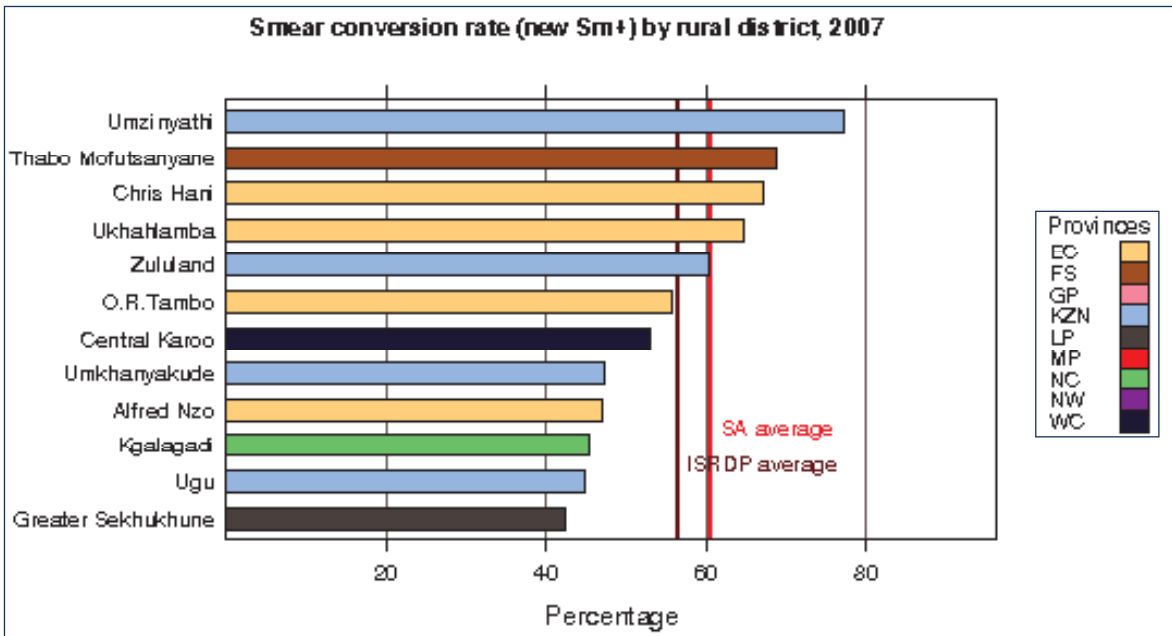
**Figure 90: Smear conversion rate by metro district, 2007**



**Rural View**

As can be seen in figure 91, Umzinyathi is the only rural district which achieved a SCR of over 70% whilst five of the 12 rural districts had SCR of less than 45%.

**Figure 91: Smear conversion rate by rural district, 2007**



**Change and trends in smear conversion rate**

From 2006 to 2007 the SCR improved by over 20 percentage points in Amathole (EC), UMgungundlovu (KZN) and by 18.1 percentage points in Ehlanzeni (MP). These improvements were made despite these districts having high case loads. The SCR in all three districts in Mpumalanga improved substantially in 2007 and were included in the ten most improved districts in the country. This is probably partially due to improved data management.

Overall, the SCR improved in all but ten districts. Of concern is that the SCR decreased in four districts in KwaZulu-Natal and that seven districts in the province have rates of less than 55%. In the North West province the SCR decreased in Bojanala Platinum and Dr Ruth Segomotsi Mompati districts causing these two districts to be ranked amongst the lowest in the country. In the Central Karoo (WC) there was a dramatic decline in the SCR by 9.1 percentage points to 52.8% in 2007. Reasons for this decline must be identified and addressed as the Central Karoo has a low TB burden which should be possible to manage more effectively.

All the metro districts improved their SCR with Ekurhuleni (GP) improving by more than 10 percentage points and City of Johannesburg by more than five percentage points in the last year. Four of the rural districts Alfred Nzo, O.R. Tambo (EC) and Umkhanyakude, Umzinyathi (KZN) had improvements in the SCR of more than five percentage points.

Figure 92: Change in smear conversion rate by district, 2006 - 2007

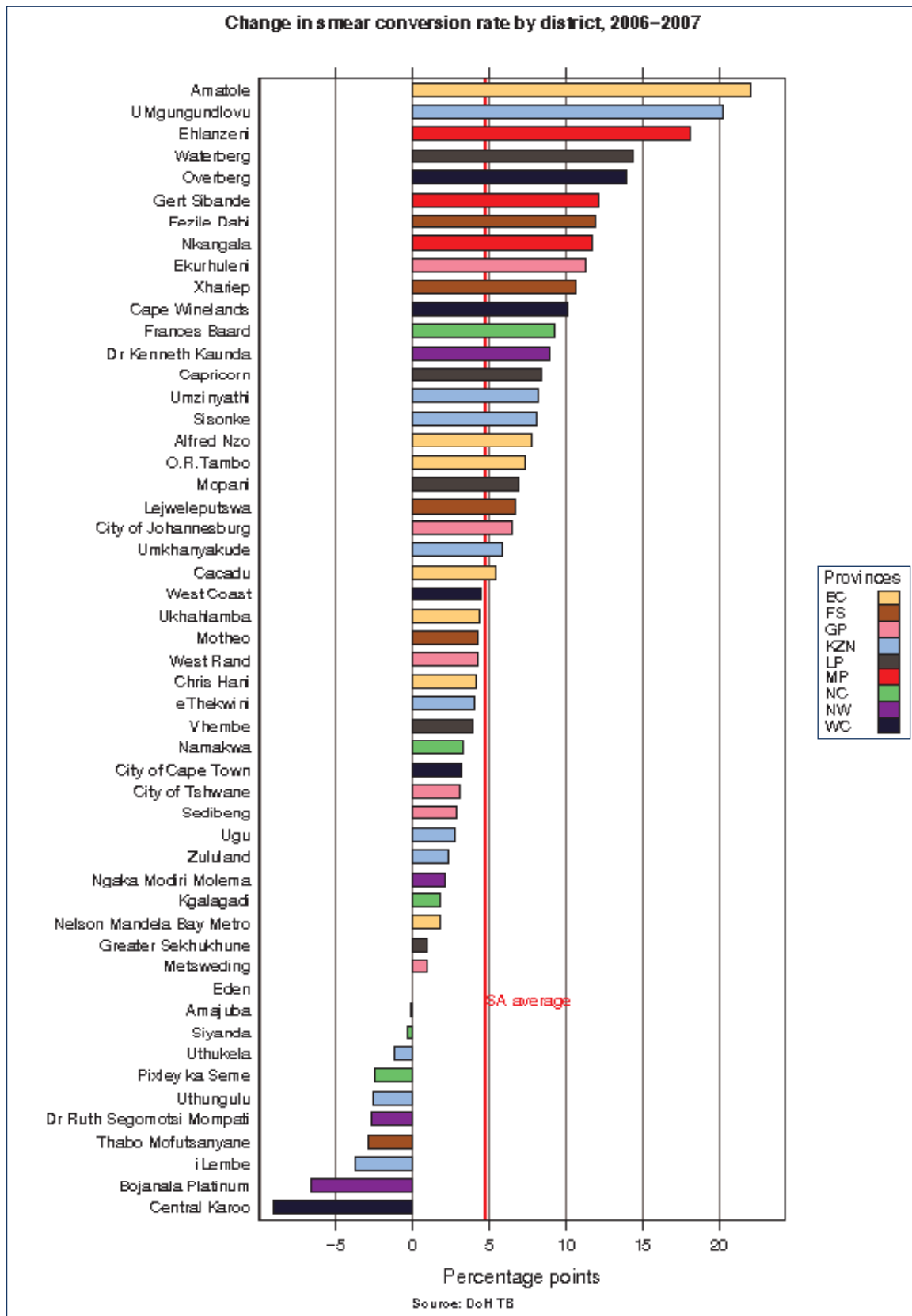
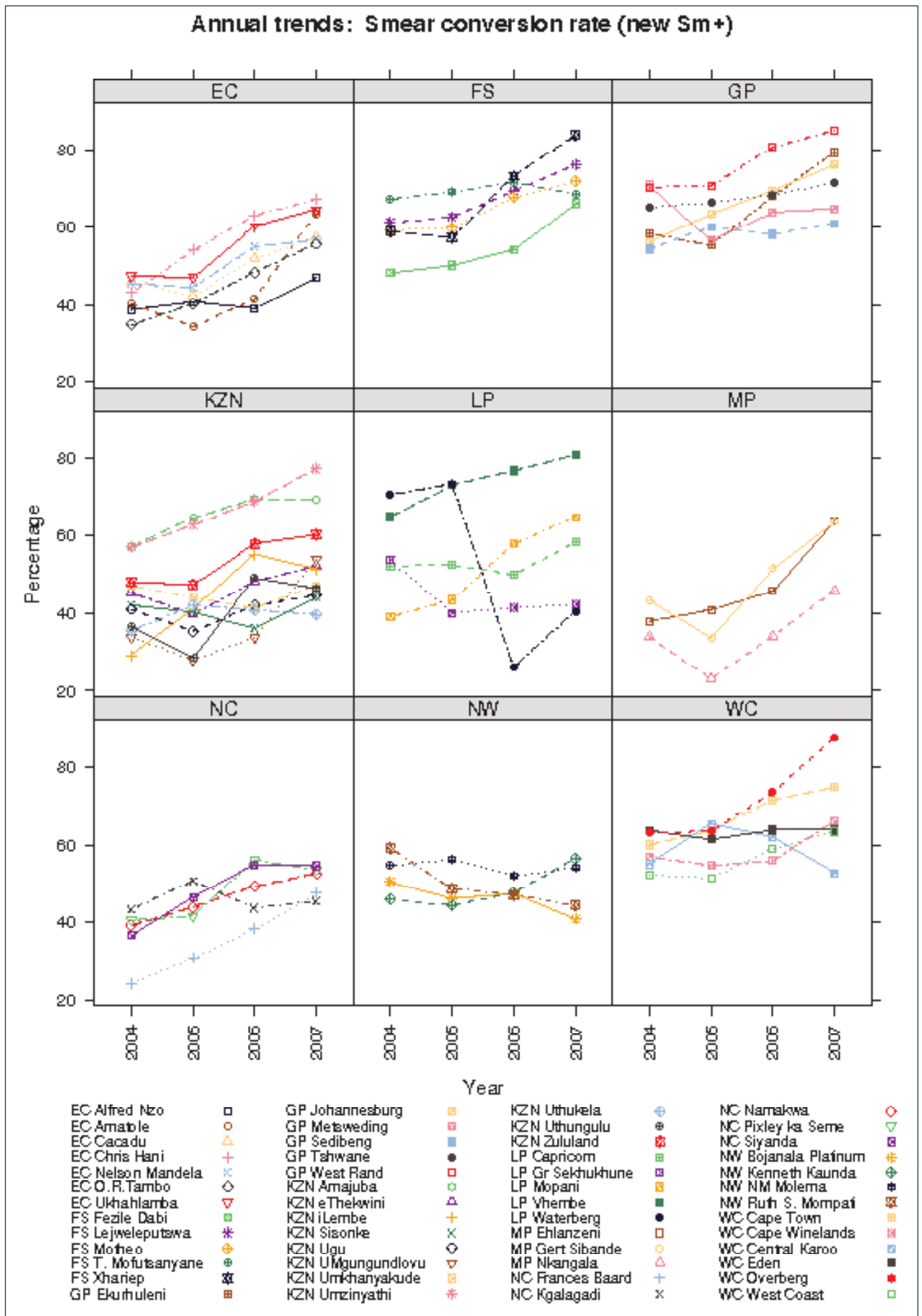


Figure 93 demonstrates the trends in SCR within the provinces from 2004-2007. With only a few exceptions SCRs over the country have improved annually. This consistent improvement is very encouraging and indicative of the focus and commitment of district level managers and health workers, and needs to be acknowledged. The North West is the only province in which SCRs have not improved over the last four years.

A more detailed view of district performance with regards to SCR over the last four years shows that one quarter of all districts (13) have improved their SCR by 20 percentage points or more.

Figure 93: Trend in smear conversion rate by province and district, 2004 - 2007



TB SMEAR CONVERSION RATE

## 5.2.2 TB cure rate

The TB cure rate is the proportion of TB cases that have taken TB treatment for a full six months, and as a result no longer have TB bacilli in their sputum. A more technical definition of cure rate is the proportion of smear positive TB cases that are shown to be smear negative at the end of six months treatment and who have also had a negative smear on one previous occasion during the TB treatment.

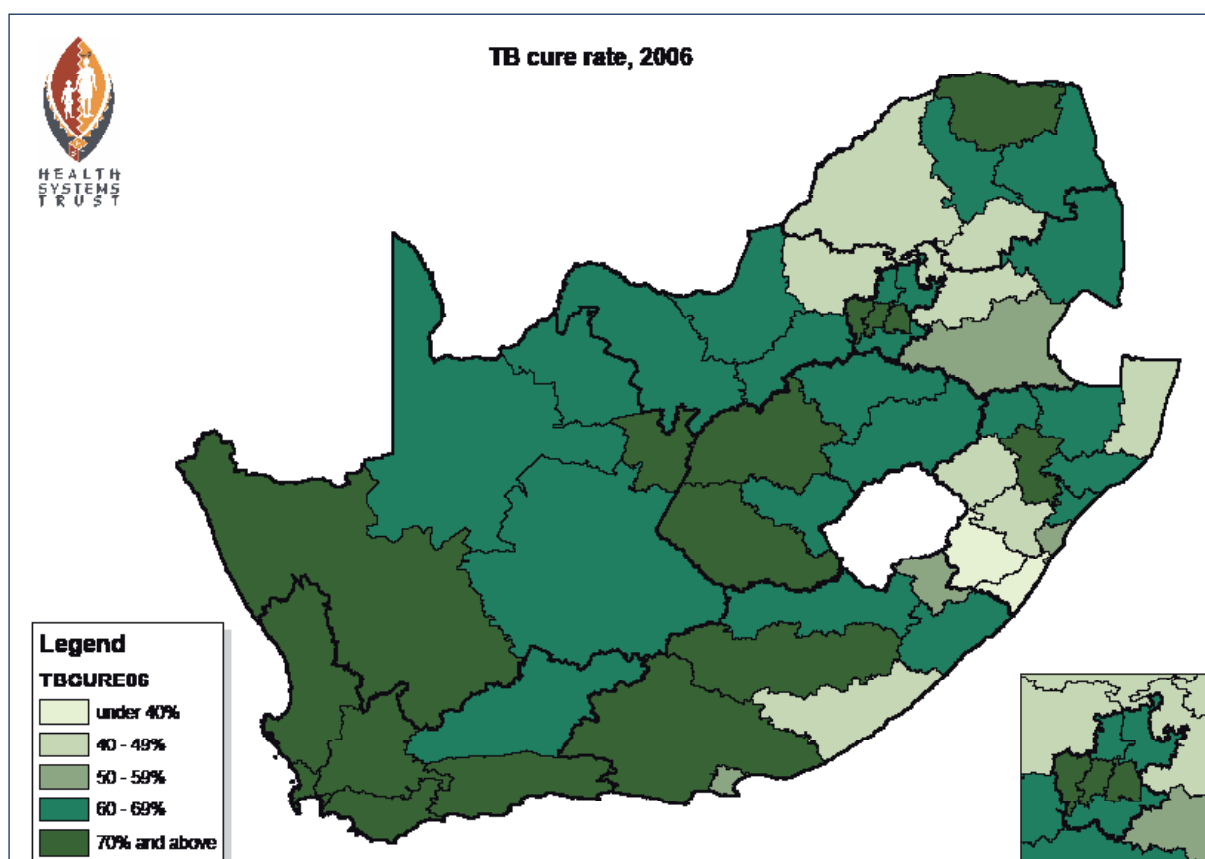
The WHO target for cure rate is 85%<sup>34</sup>. The interim South African target is an increase of 10% each year<sup>35</sup>.

There has been a steady improvement in the cure rate from 50.8% in 2004 to 57.6% in 2005, to 65.2% in 2006. This improvement is a road to success and all staff working in the TB control programme need to be encouraged to continue these improvements so that the cycle of infectivity can be broken.

### District view

Figure 94 and map 19 illustrate the large variations in cure rates across provinces and districts. Two provinces had cure rates of over 70% (Western Cape and Gauteng), whilst two provinces (KwaZulu-Natal and North West) had cure rates of less than 60%. Five of the ten districts with the highest cure rates were in the Western Cape. Two of these districts had cure rates of over 80%; Overberg (83%) and Eden (80.5%). Five of the ten districts with the lowest cure rates were in KwaZulu-Natal where two districts Sisonke (37.3%) and Ugu (39.4%) had cure rates of less than 40%. There was a wide variation in the cure rates in all the provinces with at least 10 percentage points separating the district with the highest cure rate from the district with the lowest cure rate.

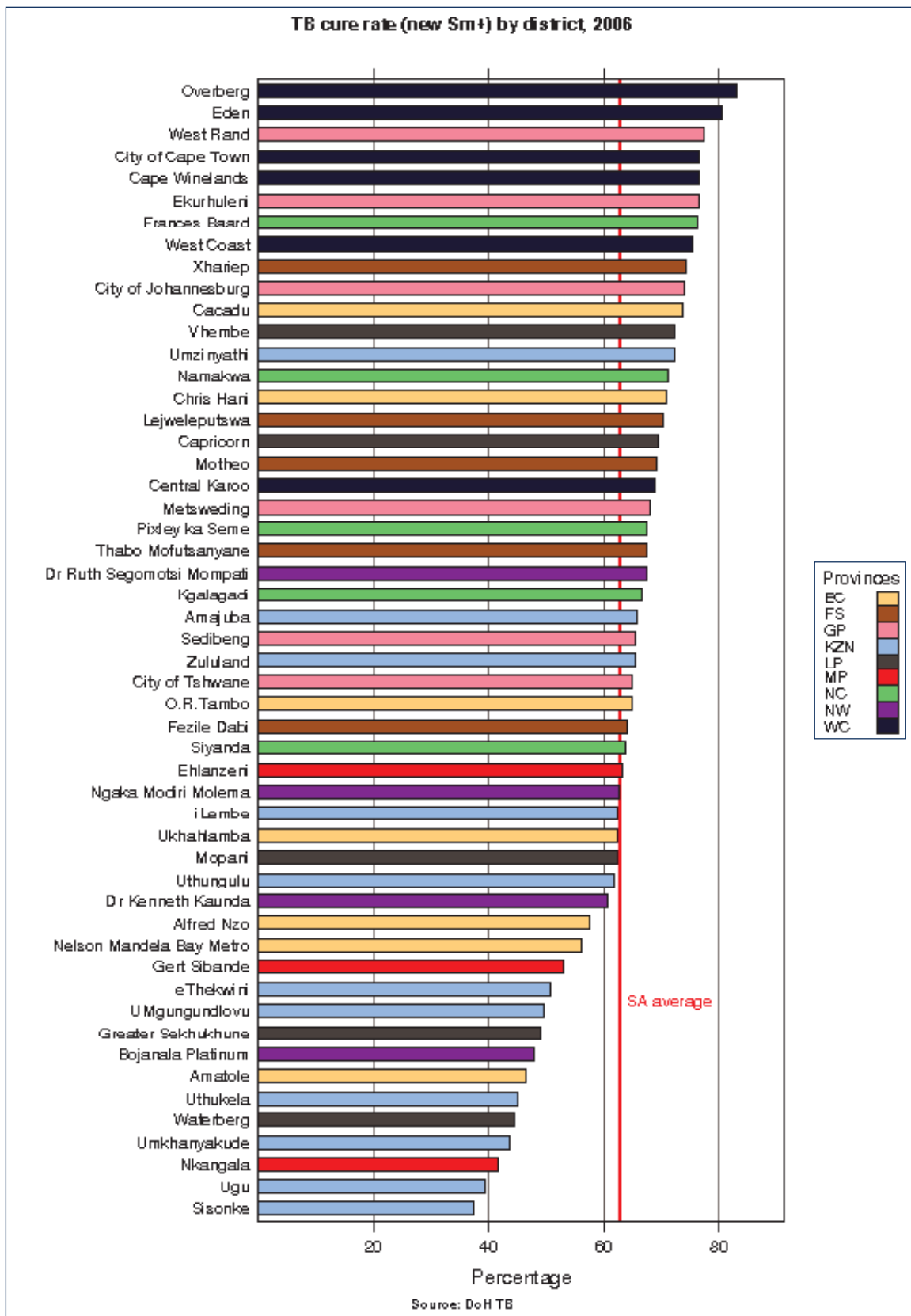
Map 19: TB cure rate in South Africa, 2006



34 Global Tuberculosis Control: surveillance, planning, financing. WHO Report 2007. Geneva, World Health Organisation. 2007. (WHO/HTM/TB.2007.376).

35 Department of Health Annual Report 2005/6, page 39.

Figure 94: TB cure rate by district, 2006

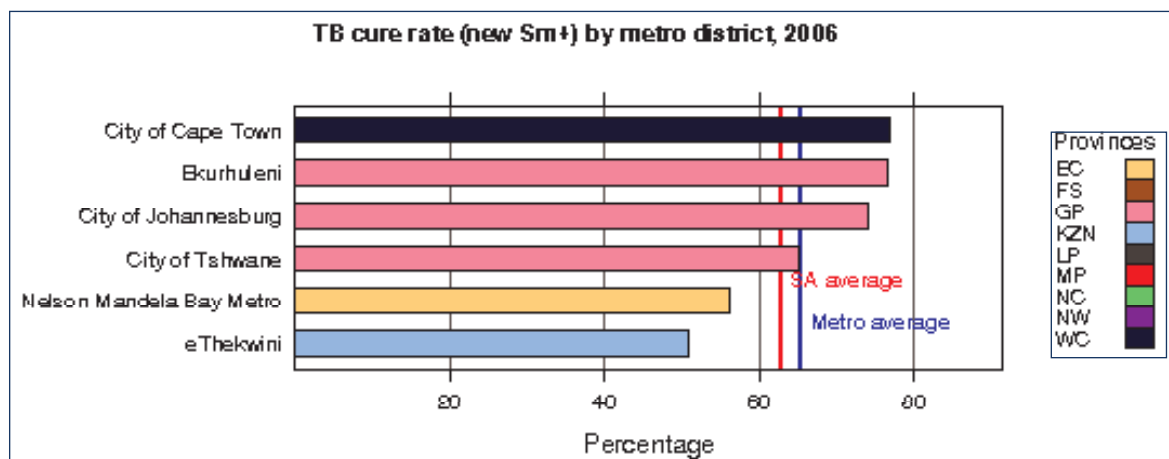


TB CURE RATE

**Metro view**

The average cure rate for the metros was higher than the national average, with three metros reaching a cure rate of over 70%. Although the cure rate had increased in eThekweni and the Nelson Mandela Bay Metro since 2005, it remained below the national average. The small improvement in the Nelson Mandela Bay Metro (from 52.7% in 2005 to 56.2% in 2006) is unacceptable given the improvement in other districts which are less resourced and have infrastructural inadequacies to address. The cure rate increased in all metros of the country except for the City of Tshwane, which declined marginally.

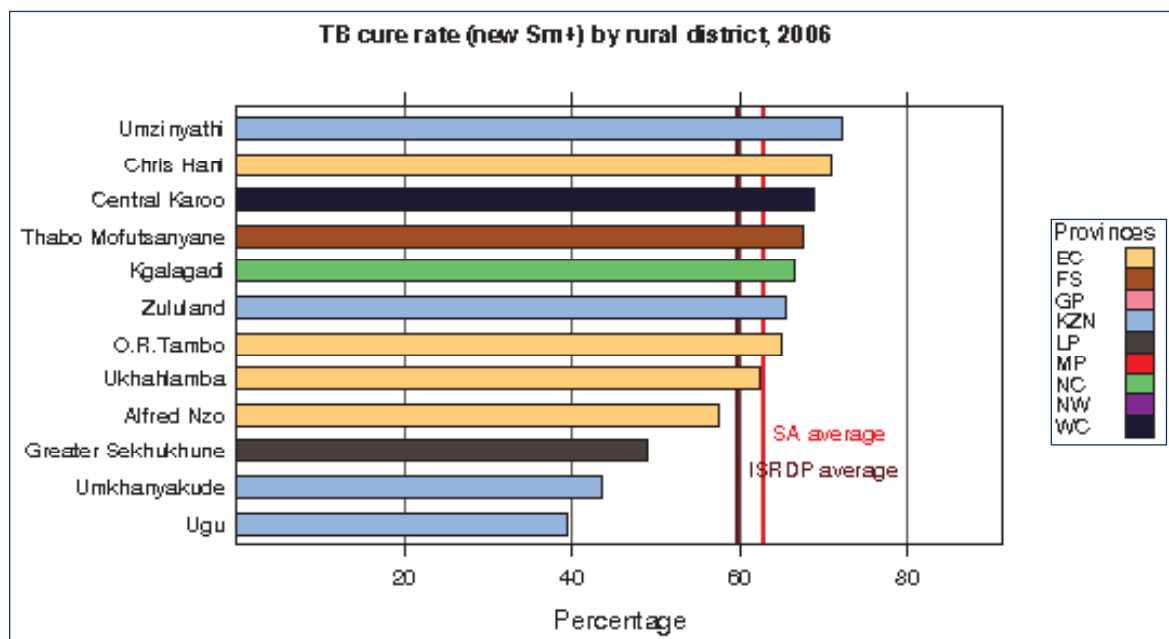
Figure 95: TB cure rate by metro district, 2006



**Rural View**

Figure 96 shows that Umzi nyathi (KZN) and Chris Hani (EC) had cure rates of over 70%. Of concern is that three of the 12 rural districts had cure rates of less than 50% and the cure rate in Ugu was less than 40%.

Figure 96: TB cure rate by rural district, 2006

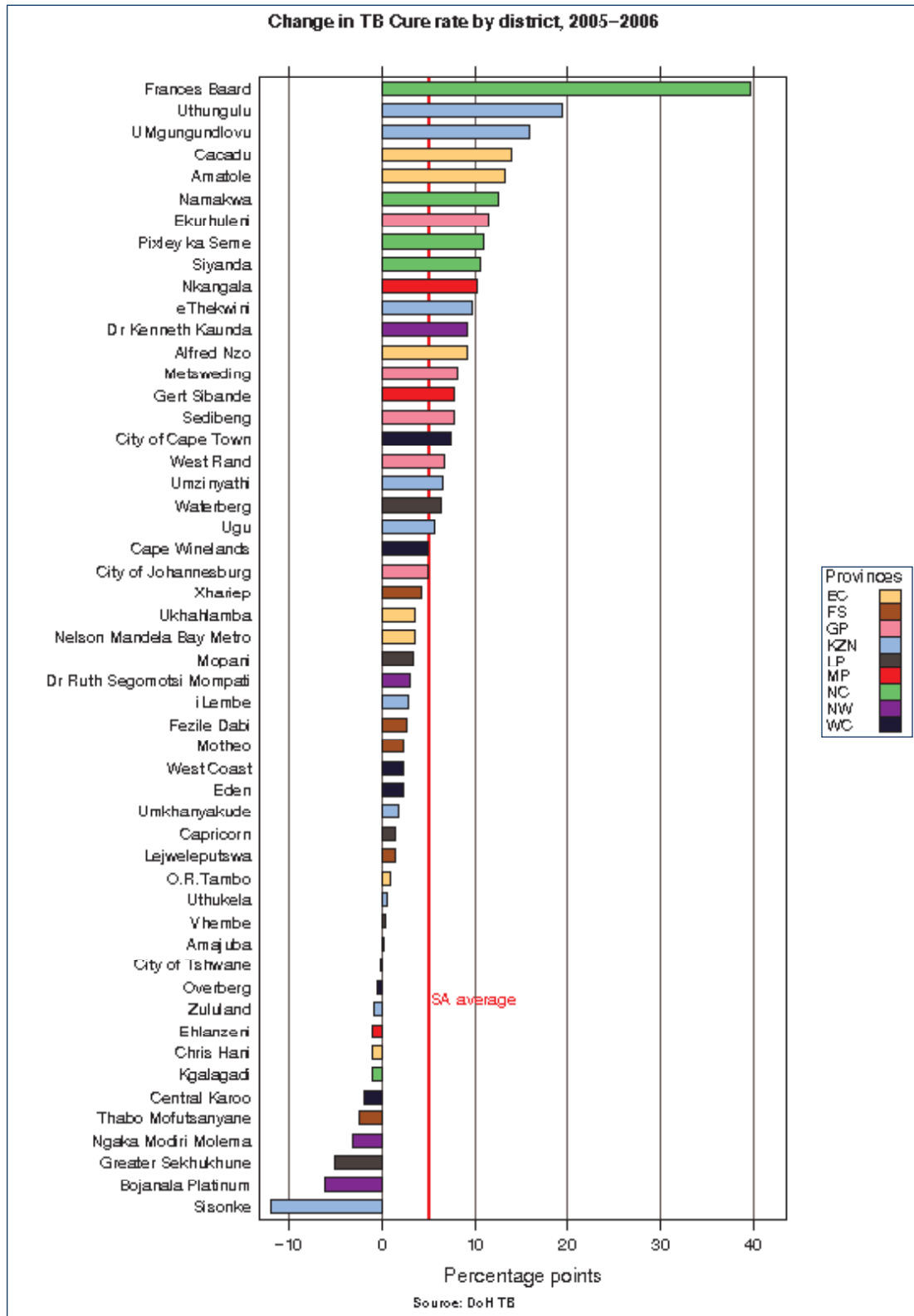


**Change and trends in TB cure rate**

The overall increase in cure rate from 2005 to 2006 in South Africa was 5.1 percentage points. Figure 97 shows the change that has occurred from 2005 to 2006, most of which reflects improvement in the cure rate in a number of districts during this time. In 2005 nine districts had cure rates of over 70%. Double this number of districts achieved a cure rate over 70% in 2006. Frances Baard (NC) had the largest increase in cure rate in the country (39.6 percentage points). This is probably partly due to changes in data management. In Uthungulu and UMgungundlovu (both KZN) the cure rates increased by more than 15 percentage points whilst in Cacadu and Amathole (both EC) the cure rates increased by just under 15 percentage points.

The cure rate increased in 2006 in all but 12 districts. The three districts where the cure rate declined the most were Sisonke (KZN), Bojanala Platinum (NW) and Greater Sekhukhune (LP). The declining cure rate in these three districts is of concern, given that their cure rates were not good in 2005 and have further deteriorated in 2006 ranking them amongst the 10 districts with the lowest cure rates in the country. Given that TB is a priority health programme it is an indictment of management at all levels that any district in South Africa should show a deterioration in the TB cure rate.

**Figure 97: Change in TB cure rate by district, 2005 - 2006**



**Rural View**

The TB cure rate improved overall in the ISRDP districts by one percentage point since 2005, as opposed to the average 5.1 percentage point increase for South Africa and 6.9 percentage point increase in the metro districts. However improvements of over five percentage points occurred in Alfred Nzo (EC) and in Umzi nyathi and Ugu (both KZN) since 2005.

Only half of the ISRDP districts showed an increased cure rate, whilst the remainder showed a deterioration in the cure rate. These districts, along with the TB control programme were earmarked for special attention during 2006. Despite this, the cure rate deteriorated. Management from clinic level to national level needs to be made more accountable for sustained incremental improvements in the TB cure rate.

Figure 98: Change in TB cure rate by rural district, 2005 - 2006

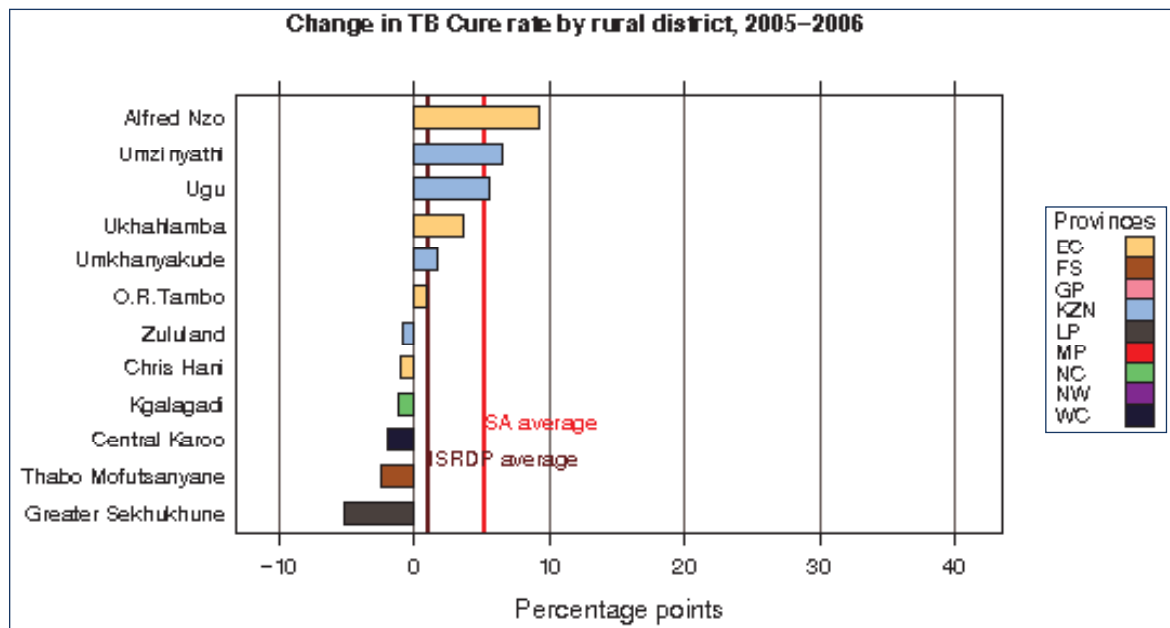
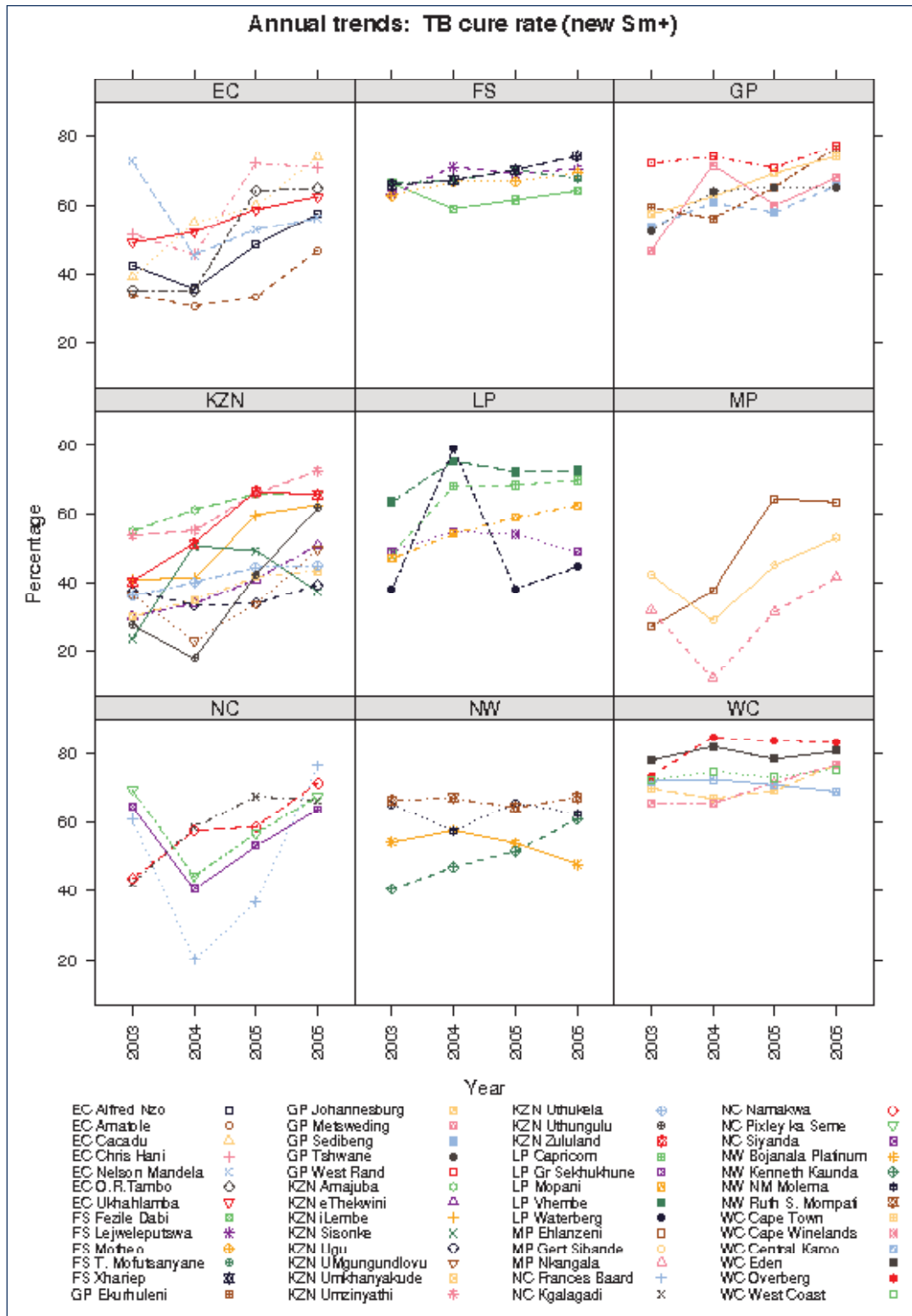


Figure 99 shows the trends in TB cure rate by province and district 2003 - 2006. The improvement in TB cure rates from 2003 to 2006 is not as encouraging as the improvement in SCRs. Cure rates have improved in KwaZulu-Natal and the Eastern Cape, however, in many provinces they have remained static or increased marginally and remain well below the targets of the National TB control programme.

At a district level the cure rates in three districts Cacadu (EC), Uthungulu (KZN) and Ehlanzeni (MP) have increased by more than 30 percentage points since 2003. In a similar vein cure rates have increased by over 20 percentage points in five districts: O.R. Tambo (EC), Metsweding (GP), eThekweni (KZN), Kgalagadi (NC) and Namakwa (NC). These improvements are very encouraging. However, the provinces which house the eight districts where the cure rate has not improved over the last four years need to target TB service delivery and make a special effort in an attempt to increase cure rates in these districts.



Figure 99: Trends in TB cure rate by province and district, 2004 - 2006



TB CURE RATE

### 5.3 Diarrhoeal Incidence in Children Under 5

Fiorenza Monticelli

Diarrhoeal diseases are one of the key contributors to morbidity and mortality in young children. The incidence and severity of these diseases are closely related to environmental health factors such as access to adequate amounts of clean water, suitable sanitation and washing facilities, nutritional status, and access to health services. Other factors such as hygiene education, maternal education, and household income also affect the incidence and impact of these diseases. However, many of these social determinants including access to water are largely out of the control of the health department, but are important components of the Integrated Development Planning of all districts in South Africa.

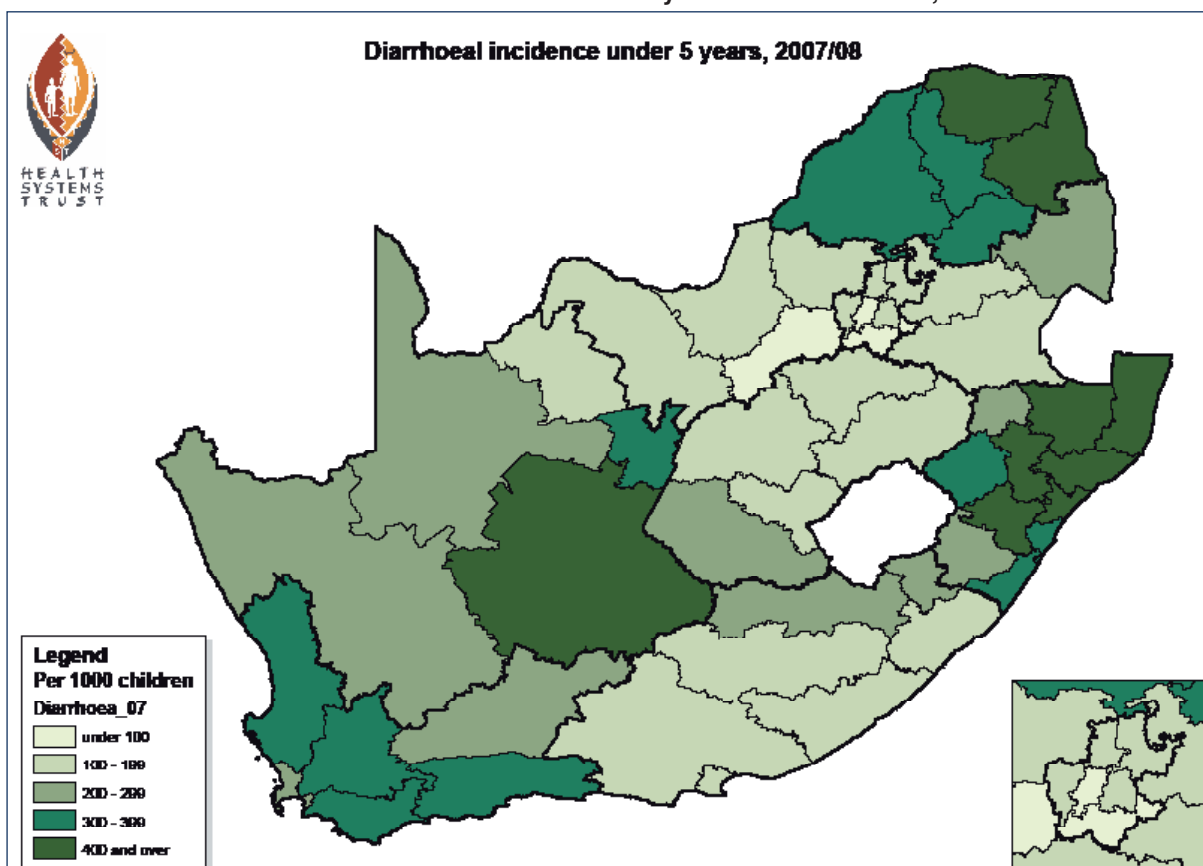
Diarrhoeal incidence under 5 measures the number of new cases of children with diarrhoea per 1 000 children under 5 years in the catchment population. Although diarrhoea is formally defined as three or more watery stools in 24 hours, in practice any complaint by the mother that the child is suffering from diarrhoea is used as the means to define a case of diarrhoea. This lack of standardisation in the definition may make the indicator less reliable. It is also probable that far more cases of diarrhoea occur than are reported by the health facilities, as many children may be treated at home, especially in rural areas where access to a health facility is difficult. The incidence of diarrhoeal disease tends to be seasonal with a high number of cases in the summer months (Nov-Jan in South Africa) and low levels in the winter months (May-July).

**District View**

Figure 100 shows that the average incidence of diarrhoea in South Africa in 2007/08 was 254 new cases per 1 000 children under 5 years old. The distribution of the incidence varied widely with the highest rate in UMgungundlovu district (KZN) with 702 cases per 1 000 children under 5 to a low in Sedibeng district (GP) with 84 cases per 1 000. Districts in Gauteng and North West had amongst the lowest incidences of diarrhoea, whilst those in KwaZulu-Natal registered the highest. The high number of cases of diarrhoea in children under 5 which occurred in Ukhahlamaba district in the Eastern Cape early in 2008<sup>36</sup>, are clearly reflected in the monthly DHIS data for 2007/08. Many of the districts in the Eastern Cape and KwaZulu-Natal provinces have amongst the lowest access to piped water in the country and contain four ISRDP districts each, and are thus expected to have higher incidences of diarrhoea in children under 5. The Eastern Cape districts however, reflect relatively low values compared to the very high values in KwaZulu-Natal and range from 119 per 1 000 children under 5 in Amathole to 242 per 1 000 in Ukhahlamba district, whereas the KwaZulu-Natal districts range from a low of 268 in Amajuba to a high of 702 cases per 1 000 children under 5 in UMgungundlovu.

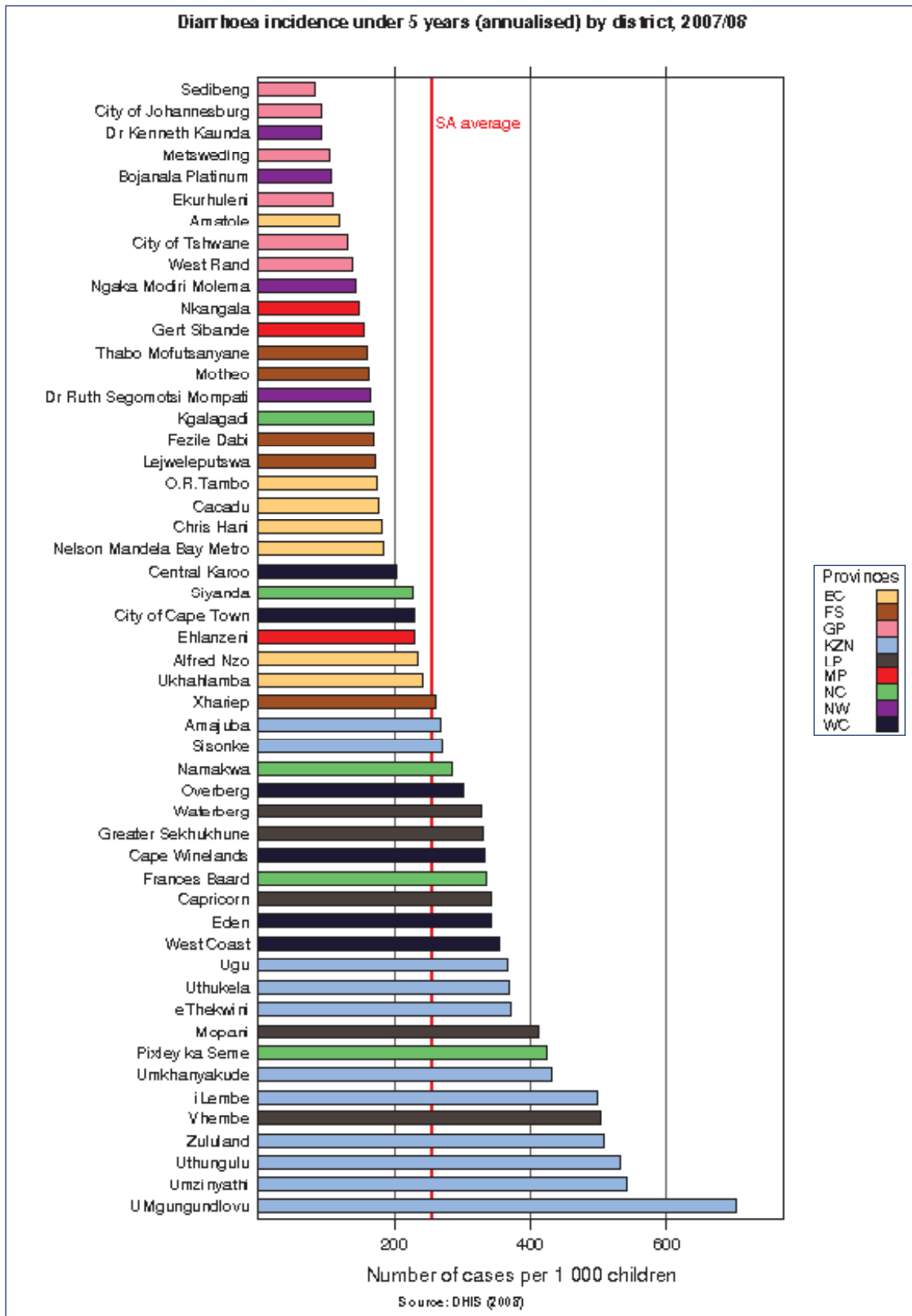
Nine of the eleven districts in KwaZulu-Natal fall within the fifteen districts with the highest incidence rates of diarrhoea in children under 5 in the country. Of note is the large difference in the rates in Northern Cape, which range from a high of 423 cases per 1 000 in Pixley ka Seme district to a low of 170 cases per 1 000 in Kgalagadi district. The rates for Kgalagadi have fluctuated widely over the past 8 years.

**Map 20: Diarrhoeal incidence in children under 5 years in South Africa, 2007/08**



36 <http://www.dispatch.co.za/multimedia/fulldocument1.pdf>

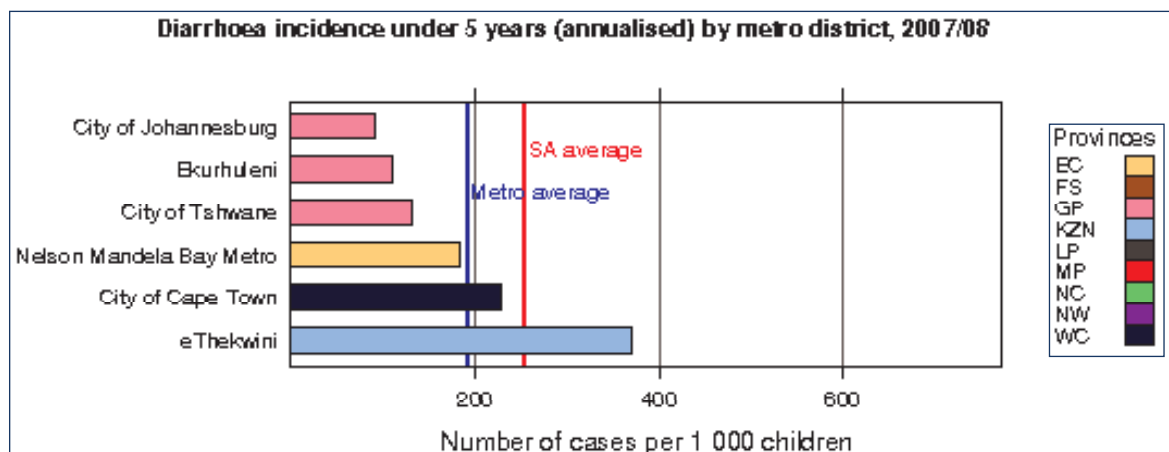
Figure 100: Diarrhoeal incidence in children under 5 years by district, 2007/08



**Metro View**

The average diarrhoeal disease incidence rate of 191 cases per 1 000 for the metros in 2007/08 was substantially lower than the average for South Africa of 254. eThekwi metro (KZN) with a rate of 371 was much higher than the national average and the City of Cape Town had the next highest incidence of 228 cases per 1 000 children. The incidence of diarrhoea in Nelson Mandela metro at 183 cases seems more realistic than the low incidences reported in 2005/06, (10 cases) and 2006/07 (25 cases).

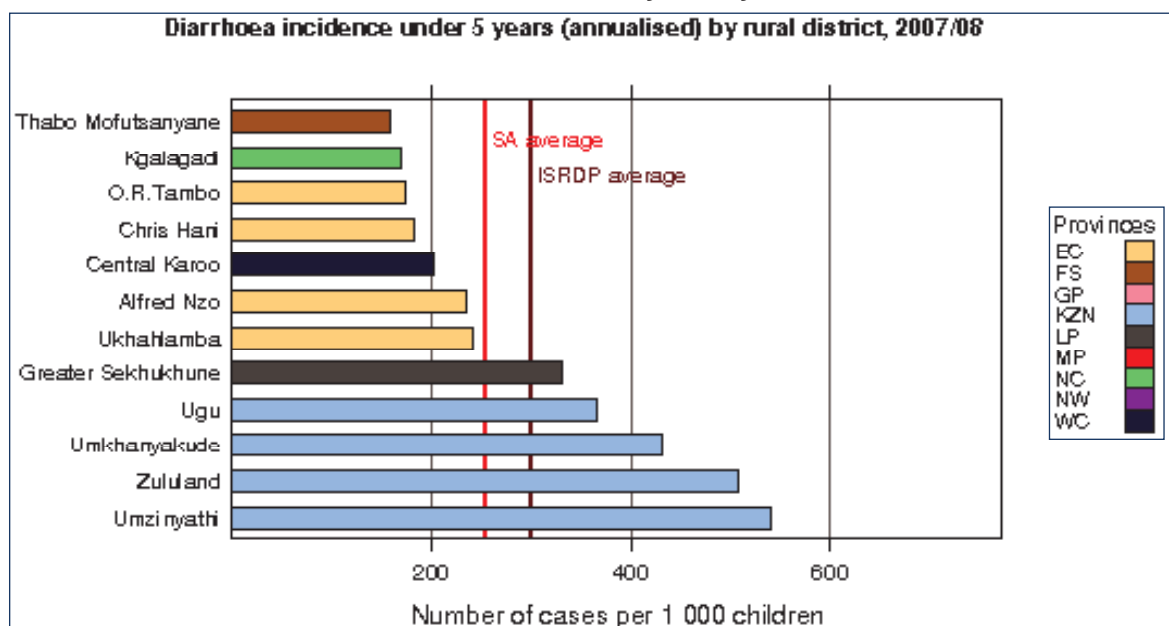
Figure 101: Diarrhoeal incidence in children under 5 years by metro district, 2007/08



**Rural Nodes**

In 2007/08 the average diarrhoeal incidence for the rural districts of 299 cases per 1 000 children under 5, was higher than the national average and higher than the average in the previous year. The average household access to piped water for these districts is also considerably lower than the national average (62.7% vs 88.7%). All four rural districts in KwaZulu-Natal had the highest rates amongst the rural districts. Although significantly higher than in 2006/07, the rates in the Eastern Cape rural districts are lower than expected, especially in O.R. Tambo which had the lowest proportion of households with access to piped water in SA in 2007.

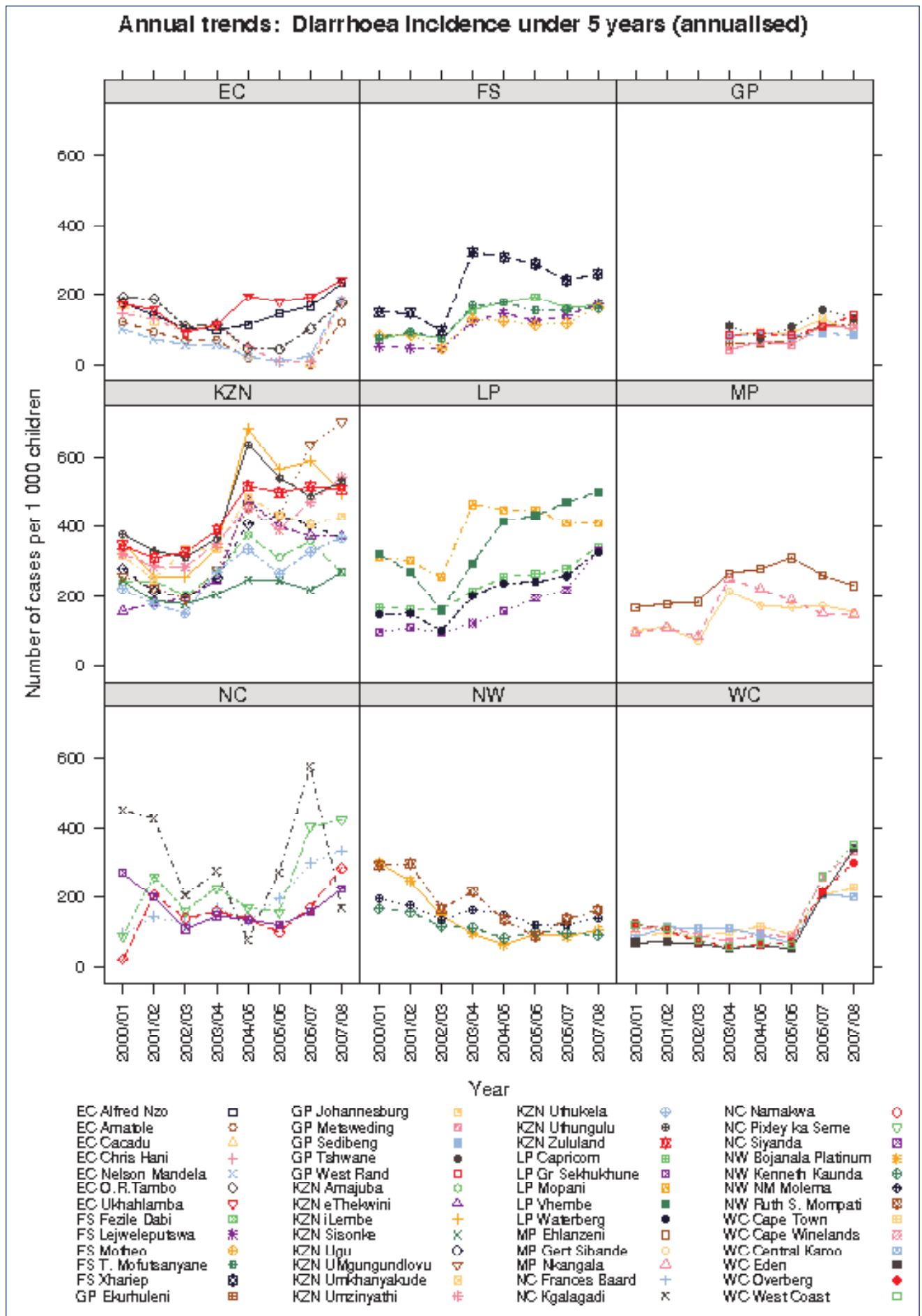
Figure 102: Diarrhoeal incidence in children under 5 years by rural district, 2007/08



**Change and trends in diarrhoeal incidence**

The graphs depicting the annualised diarrhoeal incidence from 2000/01 to 2007/08, by district within each province can be seen in Figure 103. These trends show the steep increase in diarrhoeal incidence in the Western Cape since 2005/06, as well as the increases (although varied) and wide differences in the incidences for the eleven KwaZulu-Natal districts since 2003/04. Very erratic trends can be seen in the Northern Cape, in particular for Kgalagadi and Pixley ka Seme districts, whilst in Gauteng the trends are consistently low and the incidence rates are very close amongst the districts.

Figure 103: Trends in diarrhoea incidence in children under 5 by province and district, 2000/01 - 2007/08



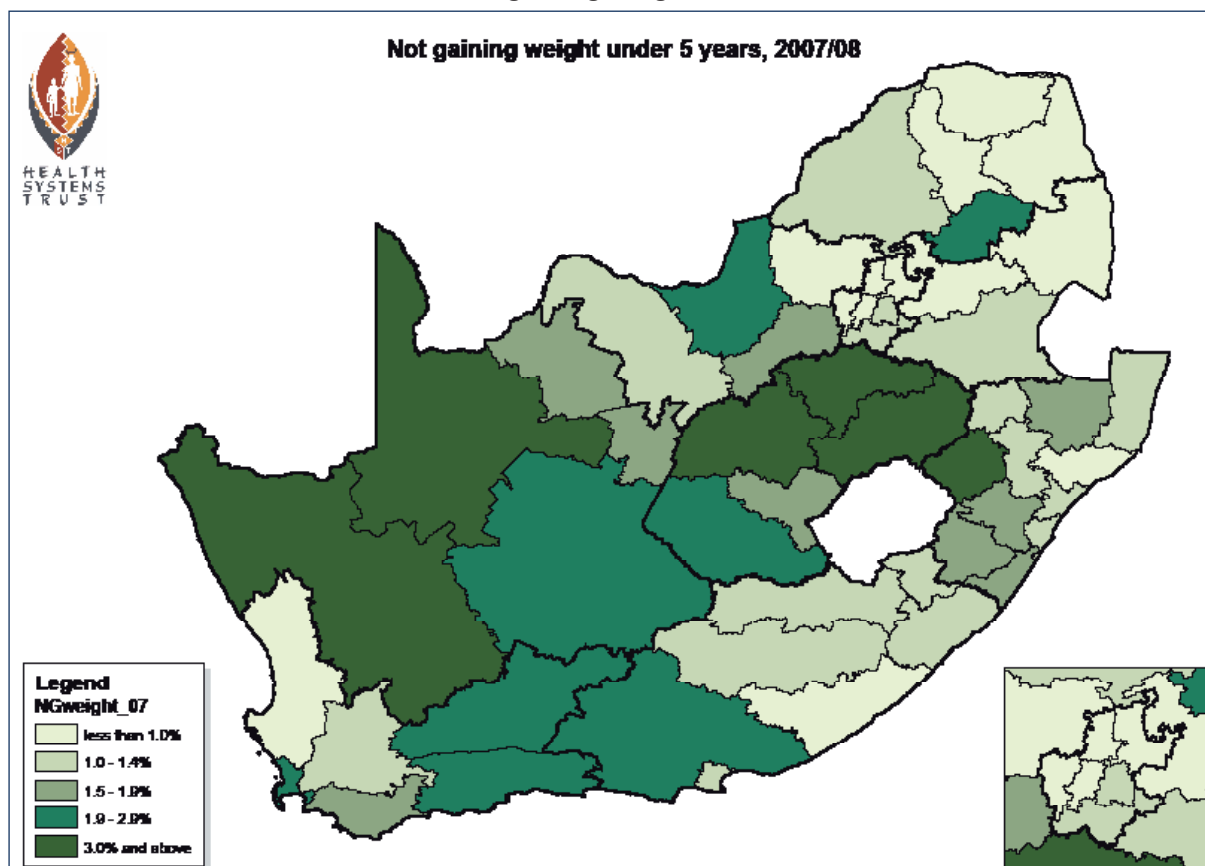
DIARRHOEAL INCIDENCE IN CHILDREN UNDER 5

## 5.4 Rate of Children Under 5 Years Not Gaining Weight

Thando Ford-Ngomane

Measurement and monitoring trends of growth parameters in children below the age of 5 years is an essential primary health care service. The indicator of the rate of children under 5 years not gaining weight measures the proportion of children that are not gaining weight relative to the number of children weighed for the first time in a month in a health facility. The weight for age serves as a compass of the general well-being of the child. Where good quality growth promotion is provided children must be weighed monthly and the weight is plotted on the "Road to Health Card". The growth pattern is analysed taking into consideration the expected weight for age and the growth pattern of the child. Stagnant or declining weight assists in early identification of children at risk of severe malnutrition so that appropriate management can be instituted before the child becomes a victim of the morbidity and high mortality associated with severe malnutrition. Faltering growth is also a pointer for investigation of underlying primary illness such as Tuberculosis and HIV.

Map 21: Rate of children under 5 not gaining weight in South Africa, 2007/08



### District view

In South Africa, an average of 1.3% of children under the age of five years that were weighed in 2007/08 did not gain weight as depicted in Figure 104. This shows similar performance to 2006/07 which also had a rate of 1.3%. There is a wide range from a very high incidence in Namakwa (NC) of 5.9% and the lowest incidence in the City of Johannesburg (GP) of 0.3%. Although the Free State province showed a decline in the percentage of children not gaining weight, it has remained the province with the highest rate of children under 5 years who are not gaining weight for three consecutive years. In 2007/08 Xhariep became the fourth district in the Free State (including Lejweleputswa, Thabo Mofutsanyane and Fezile Dabi) ranked amongst the ten districts with the highest rates. The Northern Cape province had the second highest rate of children not gaining weight. Uthukela was the only district in KwaZulu-Natal that featured amongst the districts with the highest rates of children under 5 not gaining weight.

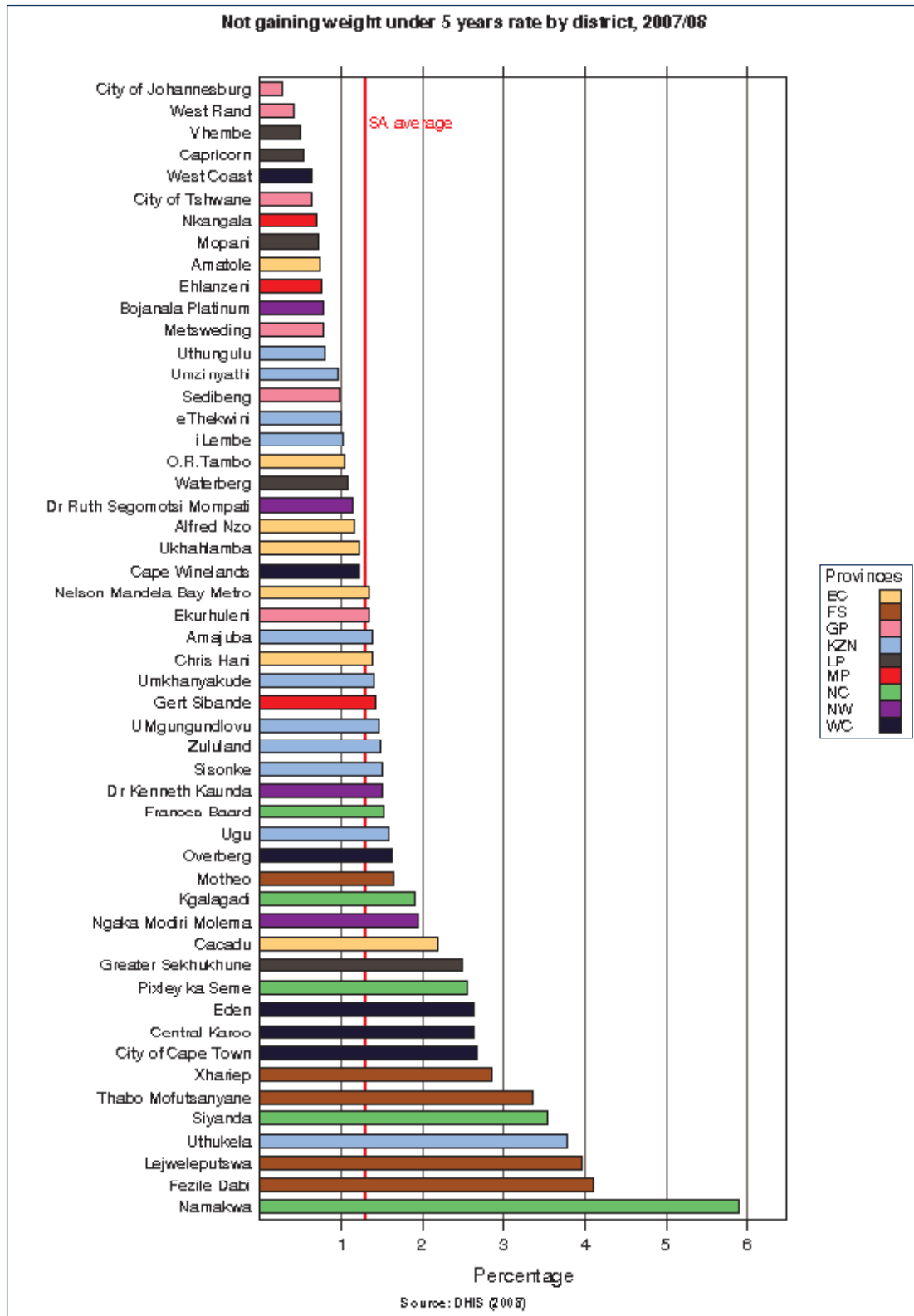
Studies have shown that health worker practices of growth monitoring have been found to be wanting<sup>37</sup>. It is therefore important to consider that the districts with higher rates

37 Serina E Schoeman, Muhammad A Dhansay, John E Fincham, Ernesta Kunneke, A J Spinnler Benadé A community-based growth monitoring model to complement facility-based nutrition and health practices in a semi-urban community in South Africa. SA J. Clin Nutr: 2003; 16 (4) 126-132..

of children not gaining weight may be placing a concerted effort on ensuring quality of growth monitoring practices amongst their health workers.

In addition, some children with poorly performing weight measurements may not be recorded within the health facility due to lack of access to health services. For example, in an HST project that supports development of community IMCI points in the remote villages of O.R. Tambo District, the monthly total number of children found not to be gaining weight was higher than the rates which were recorded and reported from the health facility in the routine (DHIS) data.

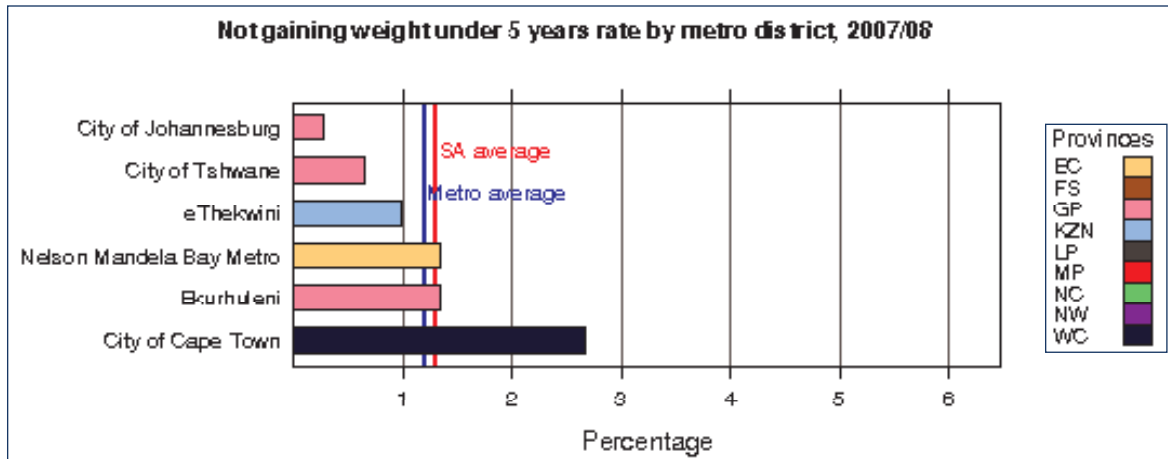
**Figure 104: Rate of children under 5 not gaining weight by district, 2007/08**



**Metro View**

The average rate of children not gaining weight in the metros increased from 0.9% in 2006/07 to 1.2% in 2007/08, slightly less than the national average of 1.3%. The City of Cape Town had the highest rate amongst the metros with increases over the past three years from 0.5% in 2005/06 to 1.3% in 2006/07 to 2.7% in 2007/08. The City of Johannesburg had the lowest rate for three consecutive years.

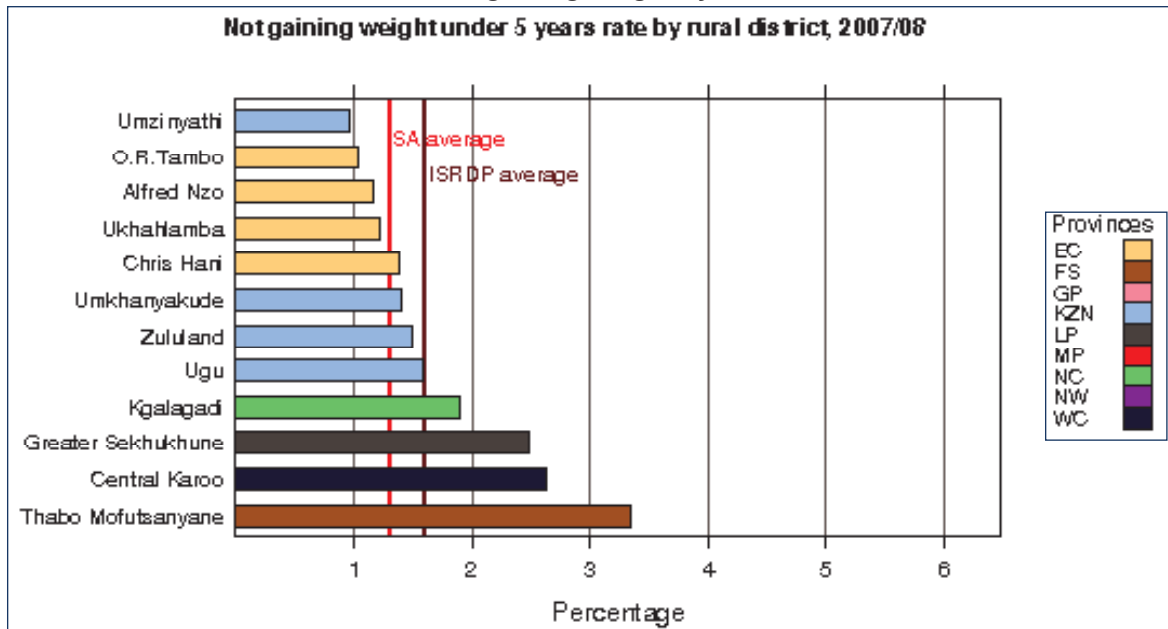
**Figure 105: Rate of children under 5 not gaining weight by metro district, 2007/08**



**Rural Nodes**

As expected, the rural nodes show a higher average rate of 1.6% than the national rate of 1.3%. The data for Thabo Mofutsanyane suggests that the problem of not gaining weight in children under 5 years is endemic in this district and further probing is necessary to uncover the possible causes. Umzinyathi in KwaZulu-Natal and Alfred Nzo, O.R. Tambo and Ukhahlamba in the Eastern Cape have unusually low rates (lower than some of the metros), even though they have a high poverty rate and are socio-economically below average. This could be a problem of growth monitoring practise and data quality issues that require an analysis by the provincial and district management.

**Figure 106: Rate of children under 5 not gaining weight by rural district, 2007/08**



**Change and trends in the rate of children under 5 not gaining weight**

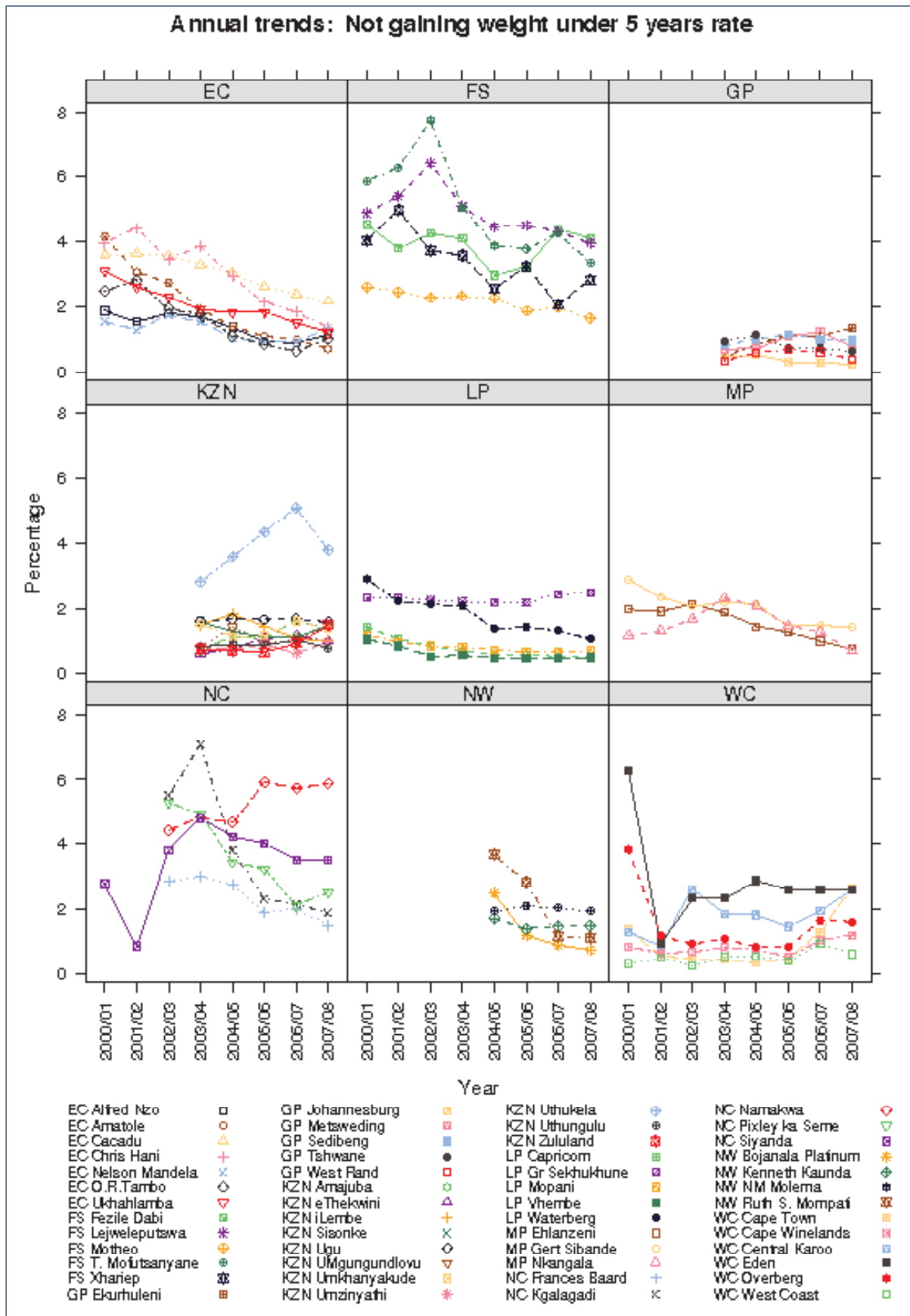
Overall, in South Africa the percentage of children who did not gain weight remained stable at 1.3% between 2006/07 and 2007/08. The Western Cape is the only province where the rate of children not gaining weight worsened in the last year and just over half of all districts in the country improved.

Among the metro districts, the City of Cape Town showed the greatest increase in the percentage of children not



gaining weight, whilst eThekweni had the best improvement. The metros on average showed an increase from 0.9% to 1.2%, but the overall figures for the metros are relatively small in line with their low deprivation indices. Among the rural nodes, half of them showed a deterioration in the rate of children not gaining weight under 5 years and the other half showed an improvement.

**Figure 107: Trends in the rate of children under 5 years not gaining weight by province and district, 2000/01 to 2007/08**



## 5.5 Delivery Rate in Facility

Khosi Nyawo

This indicator measures the proportion of the estimate of all expected births that take place in the public health facilities. It is an expression of access to the public sector facilities as well as utilisation of these by pregnant women as opposed to giving birth at home. It is one of the indicators in improving maternal health, which is goal number 5 of the Millennium Development Goals.

This indicator is highly sensitive to the denominator, which is directly linked to the estimated number of children under one year old in the district, which are used as the basis to estimate the expected births in the district. There have been problems with these figures due to known under-counting of children under one year old in both the 1996 and 2001 censuses.

### District View

Map 22 and Figure 108 show the delivery rates in facilities in 52 districts in South Africa. During the 2007/08 year the average delivery rate in a facility was 80.6%. Amathole (EC) had the lowest delivery rate (56.6%) and Metsweding district in Gauteng reflected virtually no data as it has no maternity services. Two districts, West Rand (GP) and Eden (WC) had delivery rates of over 100%. This is probably due to an under-estimation of the expected number of deliveries, or women from outside the district delivering in facilities in the district, or a combination of these two.

All the districts in Limpopo province maintained delivery rates of more than 80%, while in the Western Cape only one district, Overberg (69%) had a delivery rate of less than 80%. Two of the four districts in the North West and six of the seven districts in Eastern Cape province had coverage rates of less than 80%. In the Northern Cape, Western Cape, Free State and Gauteng provinces there were wide intra-provincial variation.

Map 22: Delivery rate in facility in South Africa, 2007/08

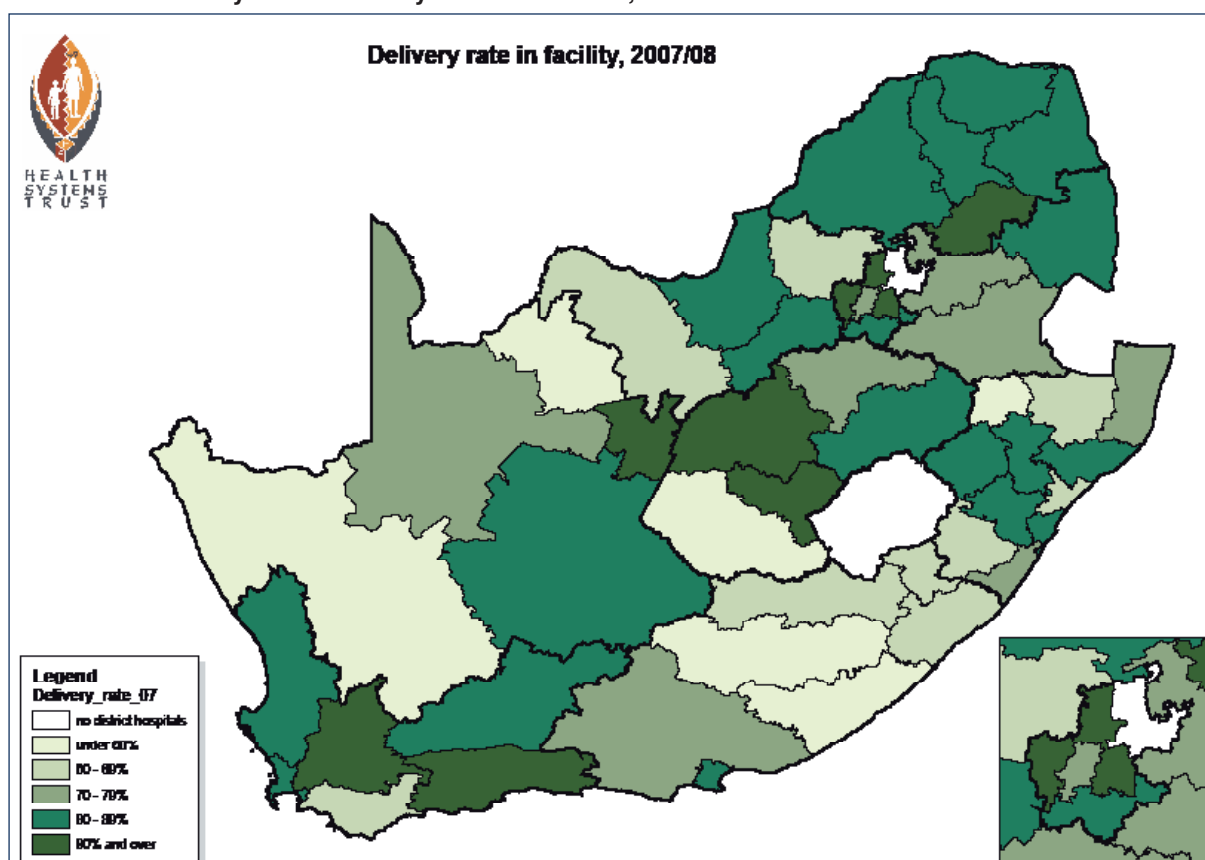
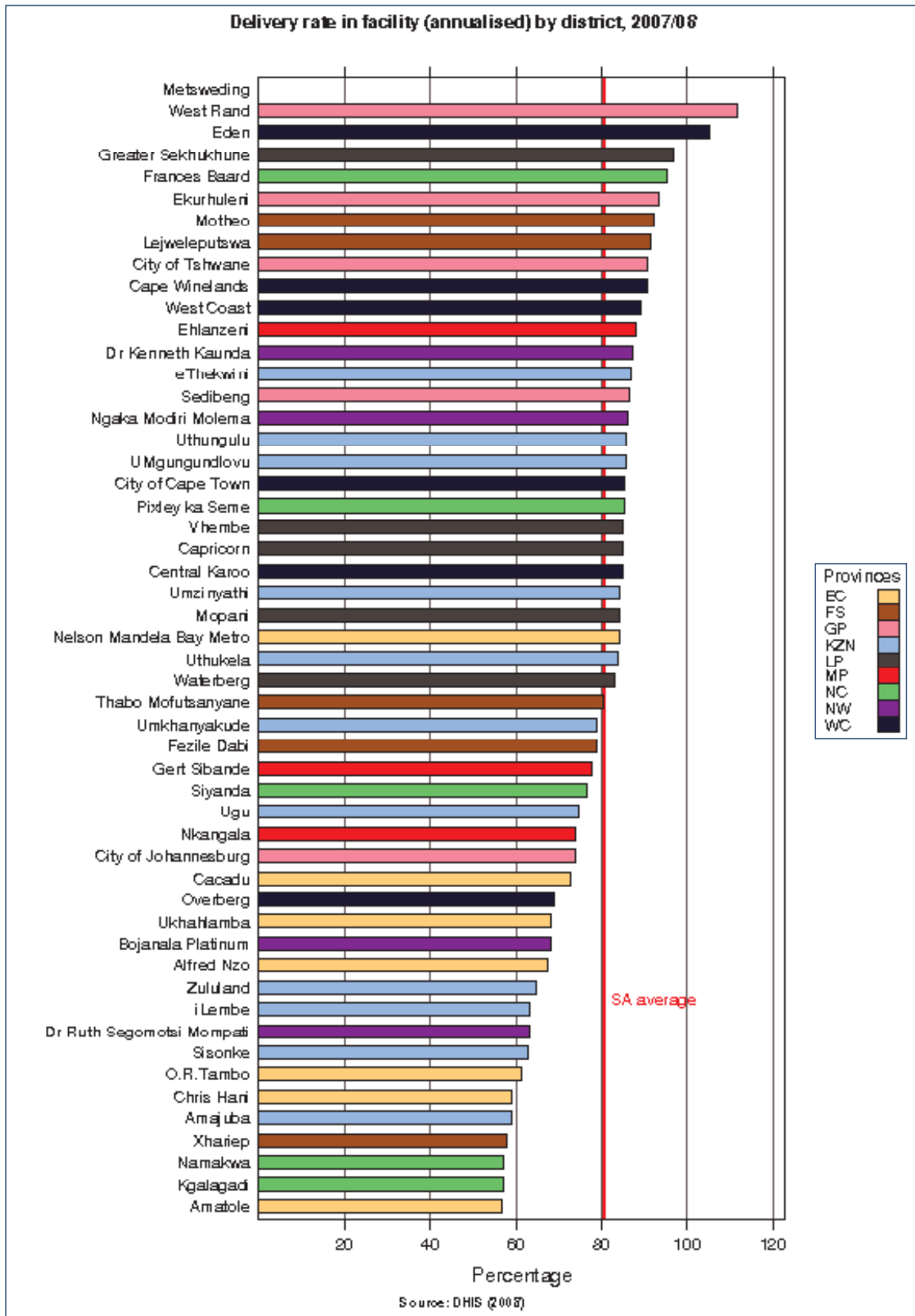


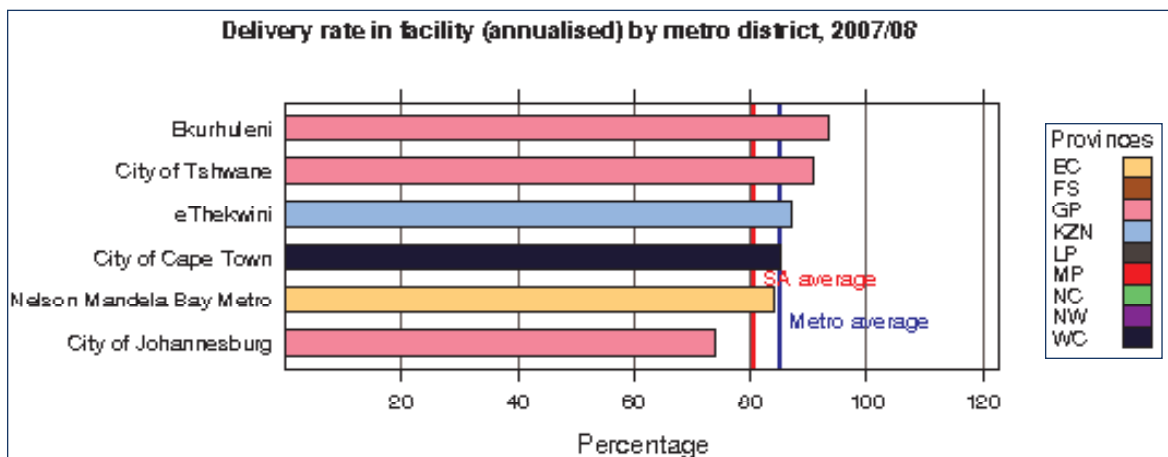
Figure 108: Delivery rate in facility by district, 2007/08



**Metro view**

The 2007/08 metro average rate of deliveries in facilities was slightly above the SA average of 80.6%, with Ekurhuleni (GP) and City of Tshwane (GP) having the highest delivery rates, which were above 90%. The City of Johannesburg was at the lower end compared to other metros with a delivery rate of 73.9%.

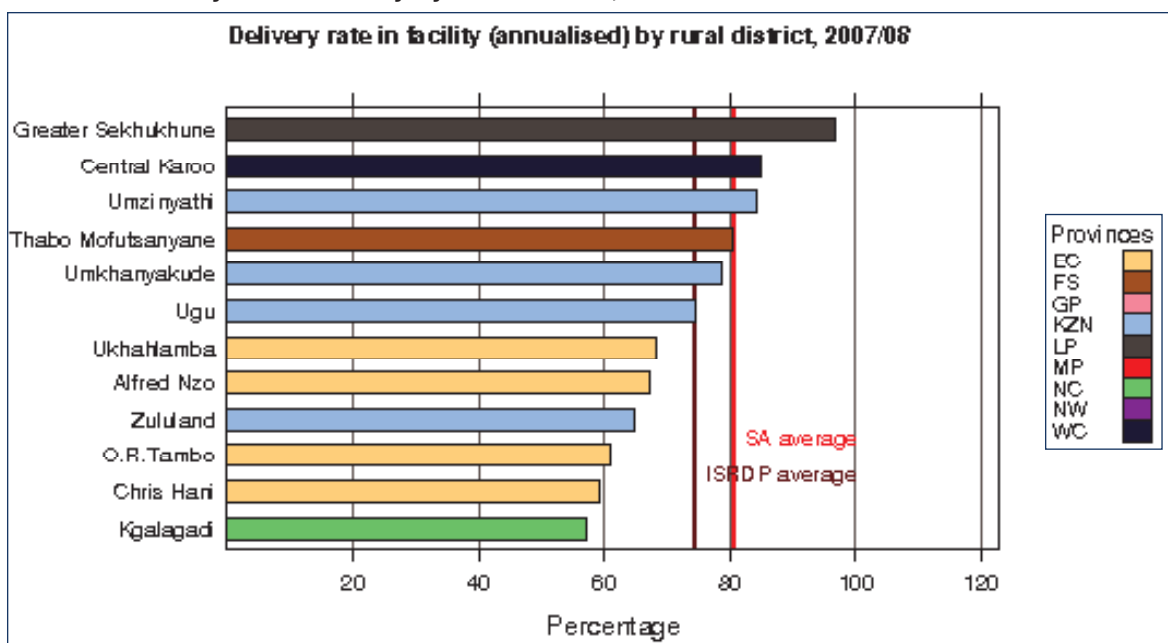
Figure 109: Delivery rate in facility by metro district, 2007/08



**Rural Nodes**

The average delivery rate in facilities in the rural nodes was 74.5%, below the SA average of 80.6%. There was a wide gradient from a high of 96.7% in Greater Sekhukhune (LP) to a low of 57% in Kgalagadi (NC), which was due to missing data from one of the larger hospitals in this district, resulting in this low value in 2007/08. The four districts in the Eastern Cape were all well below the national average and it is of concern that access to this vital service remains low in the rural districts of this province.

Figure 110: Delivery rate in facility by rural district, 2007/08

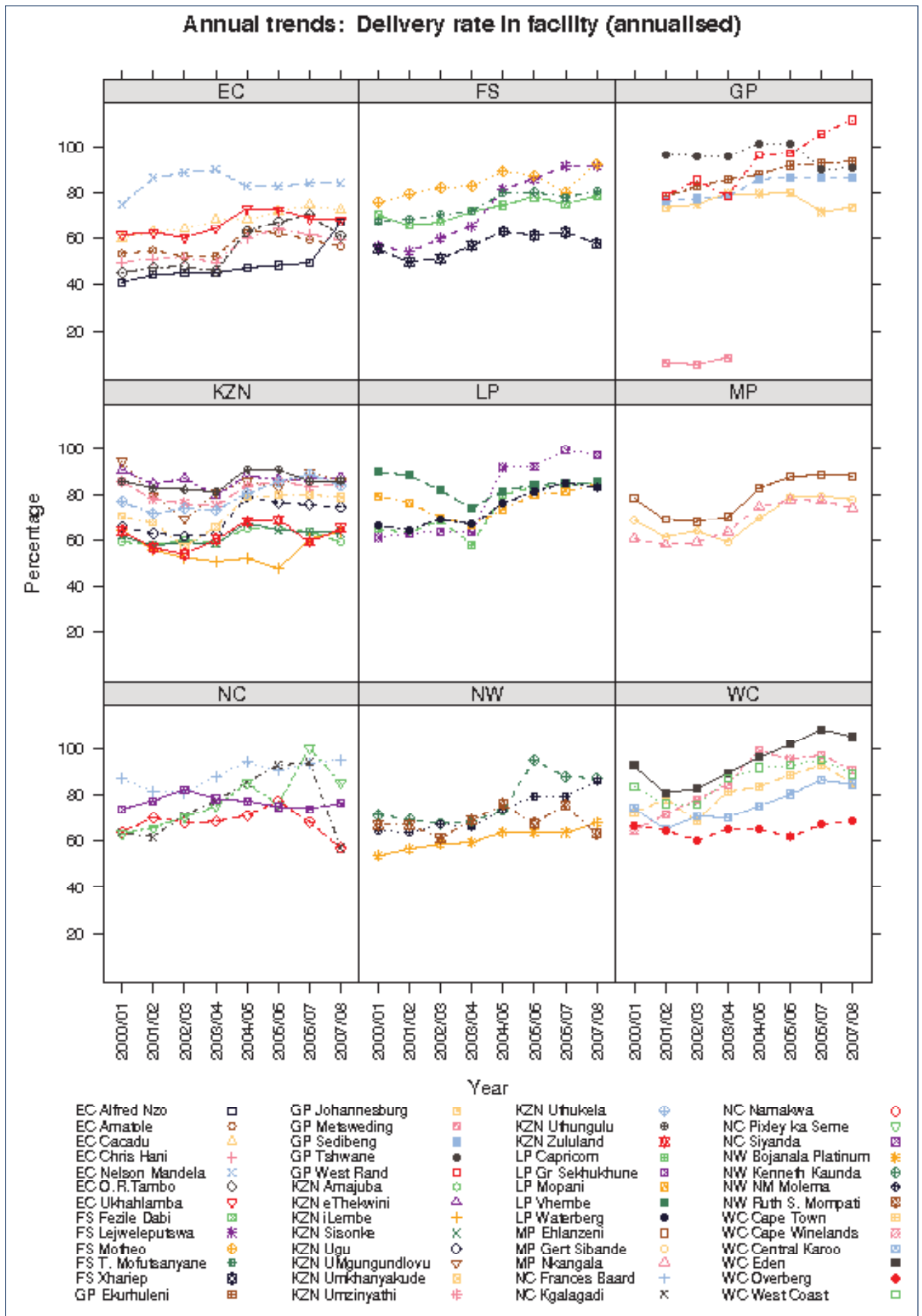


**Change and trends in delivery rate in facility**

There was very little change in the national delivery rate in facility between 2006/07 and 2007/08, with roughly half of the districts showing decreases whilst the other half showed increases. Five out of the seven Eastern Cape districts and five of the six Western Cape districts had decreased their delivery rates in 2007/08. The large increase seen in Alfred Nzo (EC) district may be due to cross-boundary changes (inclusion of Taylor Bequest Hospital). It is also noted that the population estimate used in DHIS is substantially higher than the 2007 Community Survey estimate (inflating the denominator), and thus it is possible that the generally low delivery coverage in Alfred Nzo may be an underestimate of the true value. In Motheo (FS) missing denominators for the larger hospitals in this district have inflated this indicator value. The large drop in the delivery rate in the City of Cape Town was most probably due to missing data, as was the case in Kgalagadi and Namakwa districts (NC).

Over the 8-year period since 2000/01 there is a clear increasing trend in delivery coverage in all provinces, although with quite different starting and ending rates, and a very small increase in KwaZulu-Natal. The gap of about 20 percentage points between the Eastern Cape and Western Cape has remained over this period.

Figure 111: Trend in delivery rate in facility by province and district, 2000/01 - 2007/08



DELIVERY RATE IN FACILITY