Section A: Indicator Comparisons by District

1. Socio-economic Indicators

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1.1 Deprivation Index

One of the socio-economic indicators used in the DHB is a deprivation index. This index is a measure of relative deprivation across districts within South Africa and is a composite measure derived from a set of variables,[1] which are sourced from the 2001 census and 2005 GHS data. Higher values of the deprivation index denote higher levels of social and material deprivation. Further information on the deprivation index can be seen in the appendices.

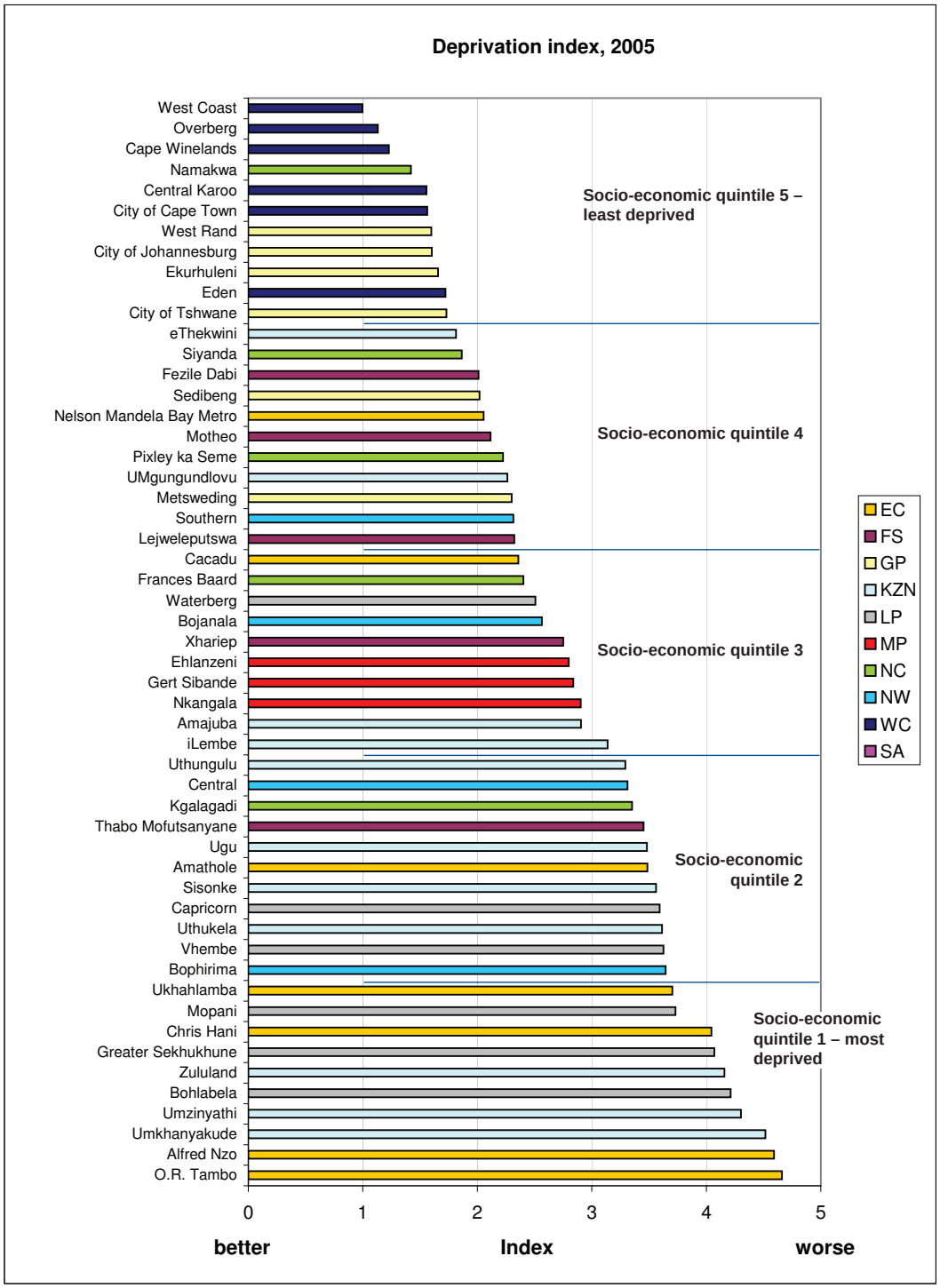
Based on the deprivation index, the 52 districts have been ranked into socio-economic quintiles. The quintiles are labelled 1 to 5 and each contains 20% of all districts, either 10 or 11 districts. Those districts that fall in quintile 5 are the top 20% **least deprived** (best-off) districts. The 10 districts in quintile 1 contain people with the lowest socio-economic status and are the **most deprived** (worst off).

Figure 1 shows the deprivation index values for all districts in South Africa, and their ranking into socio-economic quintiles. As can be seen, the three most deprived districts are: O.R. Tambo (EC), Alfred Nzo (EC) and Umkhanyakhude (KZN). It is of concern that all three of these districts also score higher on the deprivation index in 2005. Nine of the ten districts in this quintile are also designated as rural development districts. Mopani (LP) is the only district in this group that is not one of the designated rural development districts.

Interestingly, four of the five least deprived districts are all in the Western Cape. All of the districts in the top five have also scored lower on the deprivation index in 2005. With regard to movement between quintiles, West Rand (GP), Ekurhuleni (GP), and City of Tshwane (GP) have moved from the 4th quintile into the least deprived 5th quintile.

1 McIntyre D and Okorafor O. Deprivation in South Africa and its potential relevance to resource allocation issues. Health Economics Institute, University of Cape Town. Report prepared for National Treasury, Pretoria; 2003.

Figure 1: Deprivation index and socio-economic quintiles by district



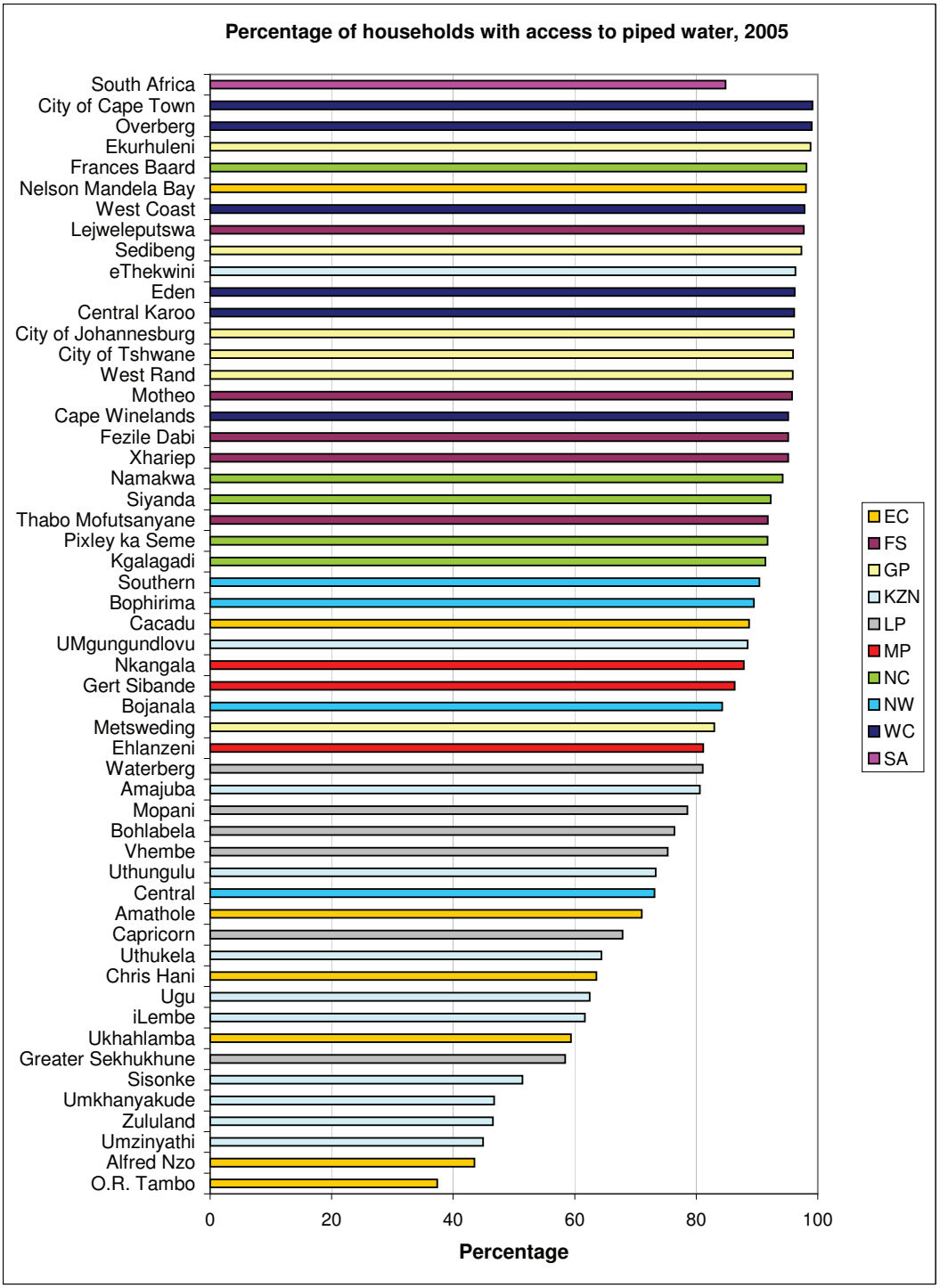
Ranking into socio-economic quintiles provides valuable insights into the gaps that exist between the least deprived (5th quintile) and the most deprived (1st quintile) with regard to primary health care services.

1.2 Access to Water

Access to water measures the percentage of households in each district that have access to piped water and is obtained from StatsSA's General Household Survey 2005. Access to water is used as a single-variable indicator of socio-economic status.

As in 2001, 85% of households in South Africa have access to piped water. However, when looking at the difference between the quintiles, it is not surprising to note that districts in the most deprived 20% (quintile 1) have a median[2] household access to water of 53%, whereas in the most advantaged 20% a median of 96% of households have access to water. Four of the five most deprived districts are among the five districts with the lowest access to piped water in the country.

Figure 2: Percentage of households with access to piped water, 2005



2 A **median** is the middle of a set of numbers lowest to highest: half the scores are above the median and half are below the median. The median is less sensitive to extreme scores than the mean or average. The median of a finite list of numbers can be found by arranging all the observations from lowest value to highest value and picking the middle one. If there is an even number of observations, the median is not unique, so one often takes the mean of the two middle values. It means the middle of the numbers lowest to highest.

1.3 Inequity: The gap between the most and least deprived districts

One of the main goals of the South African health system is to provide equitable access to and quality of health care. This goal is complicated by variations within and between the health districts with respect to:

- population and geographical size
- socio-economic development of the people within these districts
- health status and health indicators
- resources, infrastructure and capacity available for improvement of health
- quantity and quality of health services

Although inequities in health result from the social conditions that lead to illness, health systems play a pivotal role in improving or worsening the situation, particularly through provision of primary health care services.

South Africa is categorised as an upper middle-income country, yet more than half the population lives in poverty. The challenge remains to improve service delivery as well as quality of service and access to health care.

Appropriately managed and functioning health systems can address health equity,[3] specifically if they address the circumstances of disadvantaged and marginalised populations and address equitable health provision.

By the monitoring of a selected set of socio-economic and health care indicators, the District Health Barometer can be used as a tool to monitor and support improvement of equitable provision of primary health care in South Africa.

By looking at some of the indicators that are in the DHB by socio-economic quintile, some of the inequities that exist between the most deprived and the least deprived districts are highlighted.

Access to medical aid

Access to medical aid refers to the percentage of the population who have medical aid. The national average for access to medical in 2006 was 13.7%. There is, however, large variation in this indicator from a low of 3.5% in Umkhanyakude (KZN) to 28.6% in City of Tshwane (GP). With regard to the gap between quintiles, districts in the most deprived quintile have a median of 6% access to medical aid, compared to 18% in the least deprived quintile.

Per capita expenditure on primary health care

Per capita expenditure on primary health care refers to the amount spent on non-hospital PHC services per person without medical aid. This indicator is useful in assessing the extent of equity in the distribution of PHC resources across districts. The average PHC expenditure in South Africa for 2006 was R256. In 2005 the average was R243, and in 2001 the average was R222 (real 2006/07 prices). The ratio between highest and lowest expenditure per district has improved from 9.3 (2001/02) to 3.5 (2005/06) to 3.3 in 2006/07.Average expenditure is increasing, but are resources being targeted at the districts that need them?

The median PHC expenditure for quintile 5 (the least deprived) in 2001 was R350, dropped to R302 in 2005, and increased slightly in 2006 to R316. In contrast, the average PHC expenditure for quintile 1 (the most deprived) in 2001 was only R144, rose to R207 in 2005, and increased slightly in 2006 to R217. The top three best funded districts are all in the least deprived quintile, whilst the least funded district (Greater Sekhukhune) is in the most deprived quintile. So, in general, equity of resource allocation has improved with a decrease in the gap between the most and least deprived districts. However, paradoxically, for the main part the distribution of resources still favours those who have the least needs.

3 Gilson L, Doherty J, Loewenson R, Francis V. Challenging inequity through health systems. Final report. Knowledge network on health systems. Health Systems Knowledge Network, June 2007.
URL: http://www.wits.ac.za/chp/hskn.htm

Primary health care utilisation rate

The primary health care utilisation rate is the average number of visits per person per year to a public PHC facility. In 2006/07, the average utilisation of primary health care services in SA was 2.2 visits per person and the national target is 3.5.

The median number of visits to public PHC facilities for districts in the least deprived quintile was 2.7 times per year, and for those districts in the most deprived quintile the median was twice a year. Again, paradoxically, those with the least needs make the greatest use of health facilities, whilst those with the greatest needs make the least use.

Bed utilisation rate

Bed utilisation rate is a measure of the occupancy of the beds available for use. It is generally a measure of efficiency and expresses how well the hospital is using its available capacity. The indicative value set by the national DoH is 72%. Large variation is again evident in this indicator, from a low of 41% in Amajuba (KZN) to 92% in City of Cape Town (WC). The median bed utilisation rate for districts in the least deprived quintile was 74%. On the other hand the median bed utilisation rate for the districts in the most deprived quintile was 64%. This is indicative of greater efficiency in the use of resources in the least deprived districts.

Immunisation coverage

Immunisation coverage measures the percentage of children under one year who have completed their primary course of immunisation. The average immunisation coverage for 2006 was 85%. Looking at the most deprived quintile, the median immunisation coverage remained in the 80s. In the least deprived quintile, however, the median immunisation coverage increased from 80% in 2004/05 to 97% in 2006/07. Again it seems as though the most advantaged districts are making better use of and receiving more services.

Proportion of antenatal clients tested for HIV

HIV testing provides the entry point to the PMTCT programme and is, therefore, assessed as a key indicator of PMTCT implementation. This indicator measures the proportion of women who attend antenatal clinics who are tested for HIV. The national target is that all clinics in South Africa should offer PMTCT and ideally every pregnant woman should be tested. The national average proportion of antenatal clients tested for 2006/07 was 68%, but there is a large variation in the indicator from a low of 44% in eThekwini (KZN) to over 100% in the Southern (NW) district. Looking at the most deprived quintile, the median proportion of antenatal clients tested for HIV was 74%, whereas the least deprived quintile median was 91%. It is interesting to note though that the median in the most deprived districts was above the national average.

HIV prevalence amongst antenatal clients tested

The routine data collected through the latest national antenatal sero-prevalence survey provides a picture of HIV prevalence at district level. The HIV prevalence amongst antenatal clients nationally is 29.1%. It is of grave concern, however, that when looking at the least deprived quintile the prevalence is a median of 13.2%, whereas the prevalence for the most deprived quintile is more than double that – a median of 27.9%.

Smear conversion rate

The TB smear conversion rate indicator is important as it measures how effective the initial treatment is in helping to stop the transmission of TB.

In 2005/06, the smear conversion rate for South Africa was 50.5% and in 2006/07 it rose to 55.8%. However, the gap between the most and least deprived districts is still very evident. The median smear conversion rate for the least deprived quintile of districts was 68% but for the most deprived quintile the median smear conversion rate in 2006/07 was 58%.

TB cure rate

The TB cure rate is the proportion of new smear positive cases that are shown to be smear negative at the end of six months and on at least one previous occasion.

Although the gap in the cure rate between the least and most deprived districts is decreasing, it still remains large. In the latest available cure rate indicators for 2005/06 the median cure rate for the least deprived districts was 71% and for the most deprived districts 61%.

Diarrhoea incidence in children under 5 years

Diarrhoeal disease is one of the major killers of children in developing countries. Consequently, measuring morbidity due to diarrhoeal disease in children under 5 remains an important indicator. This indicator measures the number of new cases of diarrhoea in children under five years old for each 1 000 children. In 2005, the average number of new cases of diarrhoea per 1 000 children under 5 was 258 and in 2006 this dropped to 219. There is, however, a huge disparity between the least and most deprived quintile of districts, with a median of 96 new cases per 1 000 children for the least deprived, but more than double that with 207 new cases per 1 000 children for the most deprived districts. Given that diarrhoea is associated with hygiene and the lack of access to water in the deprived districts, this finding is not that surprising.

Not gaining weight rate under 5 years

This indicator represents the number of new cases of children under five who had not gained the appropriate weight compared with the total number of children under five who were weighed. It shows a faltering in the expected weight gain, which is one of the first signs of childhood malnutrition.

The average lack of weight gain in children under 5 in South Africa in 2005/06 was 1.4% and in 2006/07 this dropped slightly to 1.3%. Interestingly, there was not much difference between the most and the least deprived districts on this indicator.

Delivery rate in facility

This indicator measures the proportion of all expected births that take place in public health facilities under the supervision of a trained professional i.e. a doctor or a trained nursing midwife. It gives an idea of whether women are able to access facilities as opposed to giving birth at home. A big gap is evident for this indicator when looking at the delivery rate for the least and most deprived. The least deprived districts had a median delivery rate in facility of 86% in 2006/07, but for the most deprived districts it was 70%.

Stillbirth rate

The stillbirth rate measures the number of babies born dead out of a 1 000 total births. The stillbirth rates are for public sector facilities only and do not give a full community picture, especially in those places where there are a significant number of home deliveries. The average stillbirth rate in South Africa in 2006/07 was 24.0. The median for the least deprived districts was 20 and for the most deprived quintile was 22 stillbirths per 1 000 births.

Perinatal mortality rate (PNMR)

The perinatal mortality rate is the number of perinatal deaths per 1 000 live births, and is the most sensitive indicator of obstetric care. The SA average for perinatal mortality was 33.8 in 2006/07.

The gap between the least and the most deprived for this indicator is a significant one. For 2006/07 the least deprived quintile of districts had a median of 26 deaths per 1 000 births while the most deprived quintile of districts had a median of 34 deaths per 1 000 births in 2006/07.