

INTRODUCTION

The District Health Barometer (DHB) is a collection of health indicators which presents a snapshot of how well the health districts in South Africa provide primary health care to the population. These indicators do not provide any form of complex analysis or in-depth research, yet they point to districts that need improvement and support and likewise to those districts that are doing well. They show how districts are performing relative to one another and relative to their province and the national average. There is no tool available that shows a district compared with a similar district elsewhere in the country. However, using the District Health Barometer (DHB), comparisons can now be made between the six metropolitan districts, between the 13 rural node districts or between any districts that are of a similar socio-economic status and size.

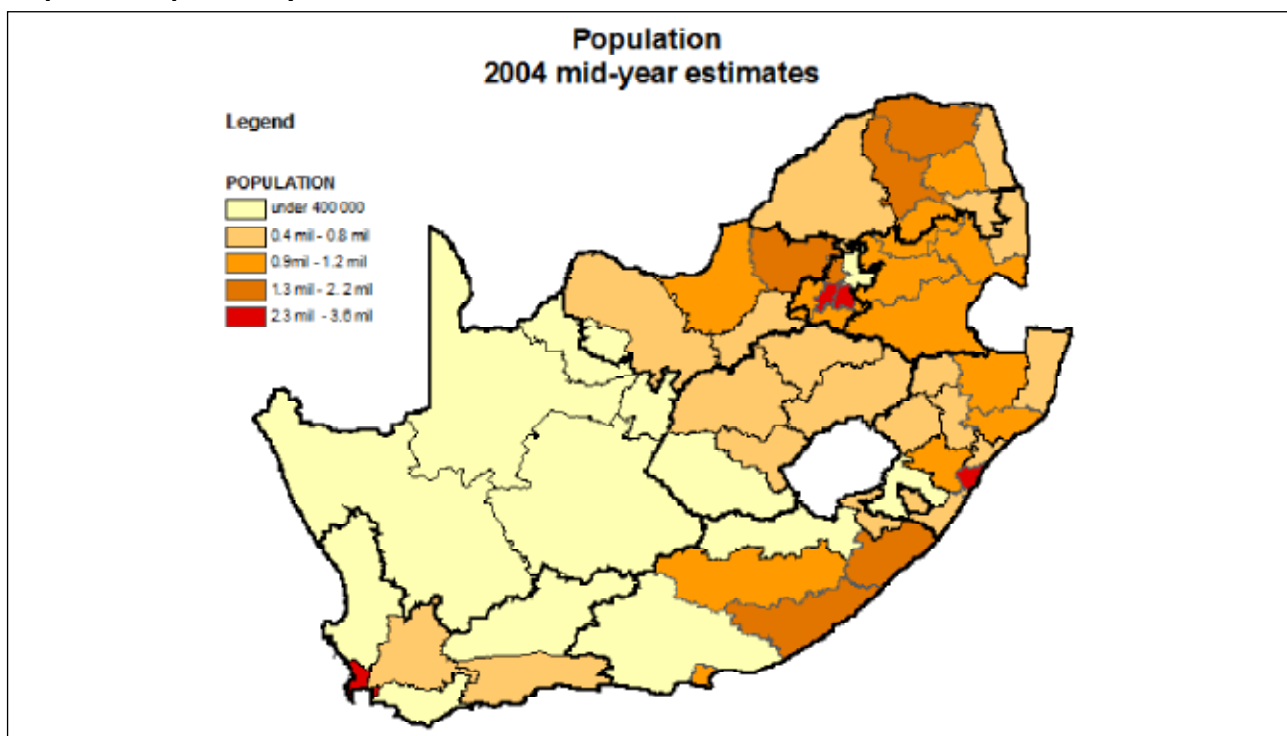
Background

One of the main goals of the health system is to provide equitable access to a good quality of health care. It is difficult to know if this goal is being achieved when there is no objective monitoring information. This is further complicated by variations within and between the 53 health districts (geographically consistent with the 6 metropolitan and 47 district councils) 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.

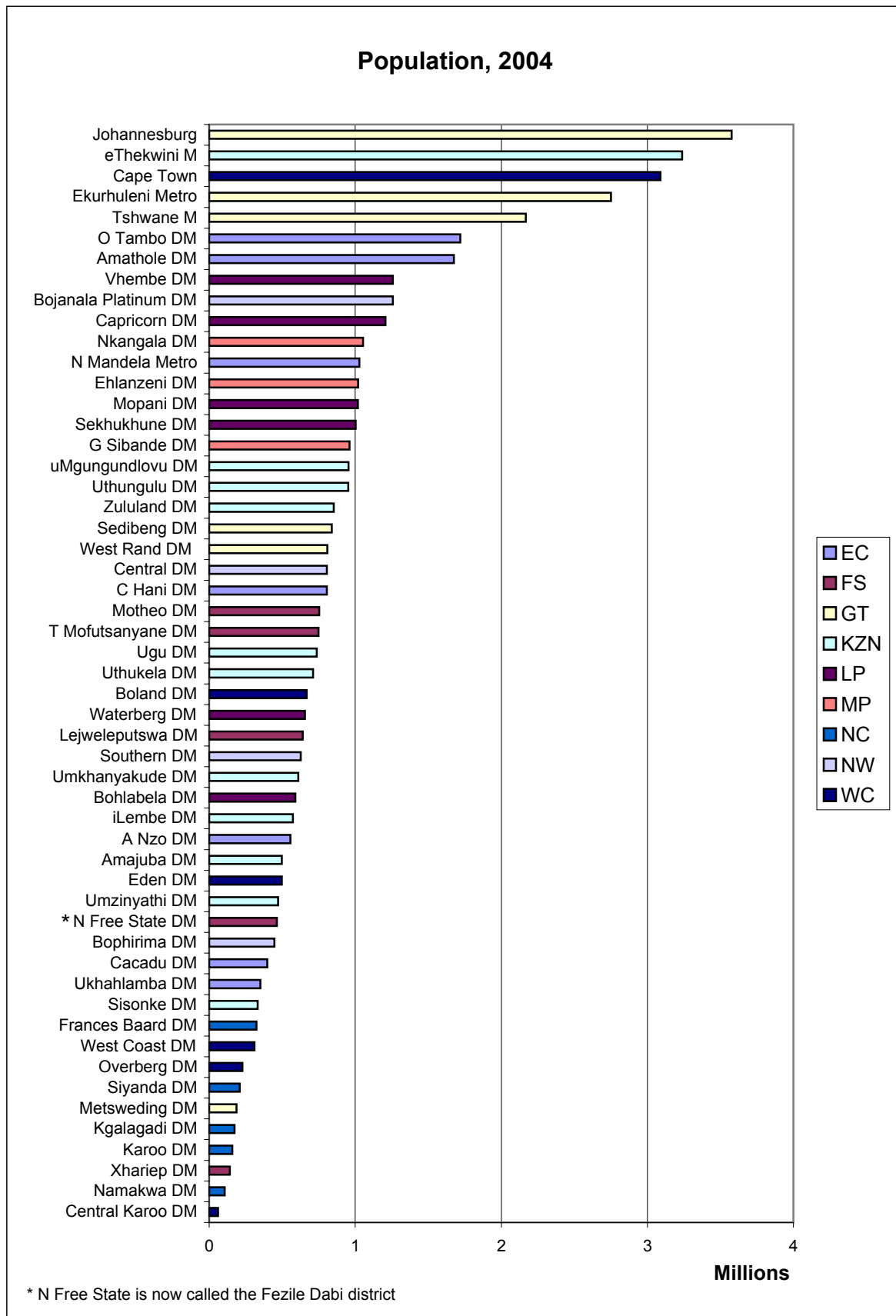
The graph¹ and map that follow, illustrate the variations in geographical size and population of the 53 health districts across South Africa.

Map 1: Population by Health District in South Africa



¹ All graphs in the DHB are plotted using the exact values and not the rounded off figures displayed in the text or tables.

Figure 1: Population per District²



² As per DHIS 2004 mid-year estimates, adopted from the StatSA mid-year estimates – refer to Appendix 1.

A tool is needed that can assist in the monitoring and evaluation of districts by comparing indicators in the same districts over time. Likewise it will also be used to monitor indicator changes among districts within the same province, as well as among districts that are similar to each other. These comparisons will assist in objectively monitoring improvements (or deterioration) in district health service provision and the health status of people in the district. The District Health Barometer is such a tool.

HST has for the past several years produced a chapter on health indicators in the South African Health Review and has built up extensive experience at using the District Health Information System (DHIS) data. HST has also been contracted by the NDoH to improve monitoring and evaluation and the use of the Health Management Information Systems (HMIS) especially at primary health care level. These activities, and our continued programmes in health systems research and development, provide a solid base of experience for this project.

Through a process of consultation with managers from Departments of Health, experts in the field of health information systems and health management and other stakeholders, a set of indicators to measure district performance was identified.³ These indicators are measurable at district level on an annual basis and are representative of the performance of the public health system.

Why a District Health Barometer?

The key purpose of the District Health Barometer is to function as a **TOOL** to monitor **progress** and support **improvement** of **equitable** provision of primary health care by:

- ◆ Illustrating important aspects of the health system at district level through analysis of indicators.
- ◆ Ranking, classifying and comparing health districts based on these indicators.
- ◆ Comparing these indicators annually over time.
- ◆ Improving the quality of data collected.

The Data

Following on the background research and the final selection of indicators, a pilot study was carried out based on indicators collected from the health districts of the North West and Western Cape provinces, Nelson Mandela Metro and the City of Johannesburg. The results of the pilot study showed that due to data inaccuracy and non-availability, some of the 27 indicators originally selected had to be dropped for this first district health barometer. From 2006, a number of these discarded indicators will become available in the DHIS, through improved data collection and analysis.

The selection of 15 indicators that make up the District Health Barometer Year 1 report, fall into one or other of the following categories:⁴

- ◆ **Input** indicators (e.g. Per capita health expenditure on PHC)
- ◆ **Process** indicators (e.g. Nurse clinical work load)
- ◆ **Output** indicators (e.g. Immunisation coverage)
- ◆ **Outcome** indicators (e.g. TB cure rate)
- ◆ **Health Status (Impact)** indicators (e.g. Stillbirth rate)

³ See Appendix 8 for list of participants in the DHB consultative meetings held October 2004 and March 2005.

⁴ These categories of indicators are not mutually exclusive and some of the indicators can be fitted into more than one category. Service efforts and accomplishment measures fall into four categories: input measures, output measures, outcome measures and efficiency measures. They quantify the effort expended on a programme (inputs), the level of service provided (outputs), the effect a service has on the programme's stated objectives (outcomes) and a comparison of the level of inputs with outputs or outcomes (efficiency). <http://www.aicpa.org/pubs/jofa/jan2002/hender.htm>

How the indicators are presented

The indicators have been grouped into categories with a short introduction for each indicator describing its meaning and use. Thereafter, values of the indicator in each district are illustrated on a national map and a graph. This is followed by a short narrative analysis and discussion of how the districts compare with each other, and to the national averages and targets, where these are available.

The 13 integrated, sustainable, rural development node (ISRDN) districts have been identified as the districts with the least resources, capacity and infrastructure whilst the 6 metros are thought to be the most well-resourced, with the largest capacity and the best infrastructure. The indicators are compared and discussed across these districts as separate groupings in order to compare like with like. Finally, the provinces are compared with each other.

As from 2006, trend data will become available for many of the indicators. This will enable monitoring and comparison of changes over time of the same district as well as comparisons between districts.

The full list of indicators, their definitions and their values by district, are contained in Appendix 3. Further reading and references are contained in Appendix 4.

DATA SOURCES

The majority of data have been extracted from the DHIS in June 2005 for the calendar year (Jan-Dec) 2004, unless otherwise indicated. TB data were extracted from the National TB register and per capita expenditure was sourced from the South African Health Review (SAHR) 2003/04 Chapter 20. Most of the indicators cover the calendar year (Jan-Dec 2004) unless otherwise indicated.

The interpretation of the indicators, graphs and maps is based on the underlying data. Therefore, it is important to note that the interpretations in the DHB are only as good as the data which are collected at facility level and collated at a district level. **If these data are incorrect, then the resulting indicators and the subsequent interpretation will also be incorrect.** One of the anticipated benefits of the DHB is to make district data more visible; to put the data under the spotlight in order to improve the quality so as to make monitoring and evaluation more meaningful.

There were specific problems related to some of the data involving cross-boundary health districts. In addition there were also challenges related to determining the denominators for some indicators, especially those that are based on the general population and in particular the estimated number of children under 1 year and under 5 years of age. These problems are discussed and elaborated in more detail in Appendix 1.

The indicators represent district averages. They therefore conceal variations within the district, i.e. between sub-districts and between facilities. However, once the quality of data collected at district level improves over time, it is hoped that this barometer can be extended to obtain disaggregated indicators to sub-district level.

The DHB Year 1 has already served the purpose of putting data quality under the spotlight for scrutiny. For example it has highlighted the fact that data for the prevention of mother to child transmission of HIV (PMTCT) programme are sent straight to the provincial PMTCT coordinator and are not included in the DHIS. This has resulted in serious underestimation of the PMTCT indicators in Gauteng, as well as skewing national averages for this indicator.

The DHB can give an indication of what the situation is, for instance that a certain district may be performing exceedingly well, but it cannot give reasons why. For that, further research and investigation is necessary. The DHB is thus also useful as a tool to point out areas that need further investigation.