A ROADMAP FOR THE REFORM OF THE SOUTH AFRICAN HEALTH SYSTEM

A process convened and facilitated by the Development Bank of South Africa

DRAFT FINAL REPORT

8 NOVEMBER 2008
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This discussion paper forms part of a process to define a Roadmap for health systems reform co-ordinated by the Development Bank of South Africa (DBSA). The purpose of the paper is to map out issues and possible reform priorities for consideration and discussion. It draws on general information within the environment and provided to the process from July to October 2008. Proposals and recommendations offered in this paper are therefore not formal positions of either the DBSA or Government or any other stakeholder or interested party. Its primary purpose is as a position paper to stimulate debate and to assist in the development of a Roadmap to reform the health system.
The convener and secretariat for the Roadmap process is the Development Bank of South Africa.

After a series of consultations with experts and role-players within the health sector, the Development Bank of South Africa, as part of its broader development mandate, convened a one-day conference on 10 July 2008 to initiate the development of a strategic Roadmap to reform the health system.

This initiative took its lead and motivation from the deterioration in South Africa's key Millennium Development Goal (MDG) performance.

The Roadmap conference was opened and led by Dr Zweli Mkhize the ANC Health and Education Group Chairperson and Mr Jay Naidoo, the chairperson of the Development Bank of South Africa.

The working group discussions at this opening conference identified key issues to take forward over the coming months.

National Department of Health, ANC Health & Education Group, Medical Research Council, Health Systems Trust, NEHAWU, Treatment Action Campaign, Development Bank of Southern Africa, AIDS Law Project, Medi-Clinic, Board of Healthcare Funders, Centre for Health Policy, Lovelife, Human Sciences Research Council, Reproductive Health Research Group, National Treasury, Netcare, J and J Development Trust, Council for Medical Schemes, Statistics SA, DENOSA, Chamber of Mines, Gauteng provincial health department, Chris Hani Baragwanath Hospital, Johannesburg General Hospital, Hospital Association of South Africa, World Health Organization, Discovery Health, UCT Health Economics Unit, Monitor Group, South African Medical Association, NALEDI, SWOP, School of Public Health (Wits), University of Pretoria, University of Western Cape, and various independent experts.

Working groups (July-October) active in following areas:

1. Diagnostics (data/trends): which focused on health status indicators and outcomes;
2. Results-based Improvements to Service Delivery: which focused on the institutional framework and resource allocation;
3. HIV/AIDS, malaria, TB: which dealt with specific disease challenges and policy responses;
4. Human resources: which focused on strategic human resource challenges and policy responses; and

5. Financing (converted WG in August: costing of proposals with function distributed across rest of roadmap process).

REPORTS

Roadmap draft reports provided routinely to working groups with key elements structured into the main report.

WAY FORWARD

This Roadmap process provides conceptual and programmatic guidance for health systems reform. It is envisaged that the government will give due consideration to its findings and recommendations. Beyond this, the process provides the basis for a social compact of key stakeholders that could, through common purpose and collective action, achieve a more effective health system and better health outcomes.
INTRODUCTION

Internationally health systems reform is fraught with difficulty and necessarily takes time. Given that there is compelling evidence that South Africa’s health system is underperforming, the need exists for a careful re-assessment of present policies and priorities.

This report, through the Roadmap process, is aimed at assisting in this task and provides an overview of what is happening to health outcomes, reasons for these trends, and consequential and potential emerging policy priorities. It is accepted that although this process has drawn on expert inputs from many quarters, this report provides only a modest starting point for what will have to be a long and hard process to revitalize the health system.

This report is based on the working group documents and discussions that took place over the period June to November 2008. As far as possible these inputs have been framed in a thematic way to establish a link between gaps in the system and responses to those gaps. The first part of the report therefore deals with South Africa’s declining outcome indicators and trends, and raises questions about the underlying causes. It then examines the evidence relating to the functionality of the system independent of the outcomes. The conclusions from this assessment attempt to reveal the extent of the shortcomings with the system with respect to both the institutional framework and resourcing.

The diagnostic sections of the report lead on to the potential strategic responses which involve changes to the institutional framework, human resources priorities, strategies to deal with HIV and AIDS and related diseases. Following this analysis is an indicative attempt to frame the financial implications and the resource allocation requirements of the system. It also examines the possibility of setting a long-term budget envelope for the public health system. This analysis is necessarily high level and intended primarily to provide a sense of the financial implications in fairly stark terms. However, this analysis explicitly assumes that any new programmes will be phased in and will not be experienced as a one-off fiscal shock.
HEALTH STATUS IN SOUTH AFRICA

OVERVIEW

Health outcome indicators often usefully serve two purposes. One the one hand they are proxy indicators of health system performance, while on the other hand they provide information on the services relating specifically to the indicator. From a definitional perspective it is useful to distinguish between a health outcome indicator, which only shows what is happening to health status, and an output indicator which focuses on operational information.

An output indicator, such as the number of consultations with a clinician or syringes used, could look quite good if seen in isolation from outcome indicators. For instance, births attended by a clinician could be a very high proportion of the population, while maternal mortality may simultaneously be high and increasing. In this instance the outcome indicator would suggest a serious problem in the quality of care provided to pregnant women, while the output indicator on its own would mask the problem.

Since their adoption by all United Nations Member States in 2000, the Millennium Declaration and the Millennium Development Goals have become a universal framework for development and a means for developing countries and their development partners to work together in pursuit of a shared future for all.

To achieve the Goals, nationally-owned development strategies and budgets must be aligned with them. This must be backed up by adequate financing within the global partnership for development and its framework for mutual accountability.

Ban Ki-moon, Secretary-General, United Nations in United Nations (2007).

South Africa’s outcome indicators provide a troubling picture of profoundly worsening health status coupled with inadequate systems of measurement. This deterioration is centered around the outcome indicators that form the basis of the Millennium Development Goals (MDGs) established by the United Nations. Although international performance against these goals has been mixed, South Africa stands out amongst its peers for the extent of the deterioration since 2000 when the MDGs were introduced.

However, from the evidence available, the deterioration began well before 2000. Much of this deterioration is as a result of the HIV and AIDS pandemic, with countries in the region showing similar trends. However, in contrast to many of these countries, South Africa has a well developed health system infrastructure and a greater level of economic

1 For a comprehensive report on the purpose and achievements of the MDGs see United Nations (2007).
development. This raises important questions about the responsiveness of the health system to existing and changing health needs.

OVERALL HEALTH STATUS

A useful indicator of underlying health status within a data poor environment is cause- and age-specific mortality. An examination of trends from 1997 to the present suggests that a profound change in health status has occurred with mortality from natural causes rising annually, while mortality from non-natural causes has remained largely unchanged. Contrary to mortality patterns elsewhere, much of this increase is in the young adult population and those under the age of 6. The changed mortality pattern is primarily caused by infectious diseases. The increase in young adult deaths is particularly pronounced in young women with the numbers in the 30-34 year age group being four times higher in 2005 than in 1997.

FIGURE 1: NUMBER OF NATURAL AND NON-NATURAL DEATHS

Child Nutrition and Mortality

The number of registered deaths of children under-5 years has increased from 33,000 in 1997 to 62,000 in 2005. However, this increase is difficult to assess as it coincides with an improvement in the vital registration systems and may therefore be explained by improvements in the completeness of registration. Furthermore, concerns about the

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2 Roadmap, 2008a, p.2.
3 Roadmap, 2008a, p.2.
quality of the child mortality data from the 2003 South African Demographic and Health Survey and the 2001 census have been highlighted making it necessary to resort to model-based estimates.\(^5\)

A recent review by the Every Death Counts writing group\(^6\) noted that all national, international, and the United Nations model (based on data using national survey and adjusted vital registration data) indicate a reversal in the previous downward trend in child mortality since the early 1990’s. While there is no consensus on the exact mortality rate in recent years, there is general consensus that South Africa is not on track to achieve the MDG goal 4. Plausible estimates of the under-5 mortality rate in 2005 range from 69 to 76 per 1,000 in contrast to the target of 31 per 1,000. This would indicate about 60,000 extra child deaths per annum.

There are three major killers of children under age five in South Africa, with each accounting for roughly a third of all deaths:

1. HIV and AIDS;
2. Neonatal causes; and
3. Childhood infections such as pneumonia and diarrhea. each account for about a third of all deaths.

Malnutrition and access to clean water are important risk factors for child mortality, as they increase the risk of dying from infections. It has been estimated that 12% of childhood deaths are because they are underweight; and that unsafe water and sanitation account for 9.3% of deaths.\(^7\)

It is also clear that the distribution and pattern of morbidity and mortality in South Africa are shaped by persisting inequalities in the major immediate risk factors.

The 2003 South African Demographic and Health Survey (SADHS) measured children under-5 years of age and found 12% were underweight but a much higher proportion of children were stunted (27%). The \textit{National Food Consumption Survey} found that underweight among children from 1-9 years of age had reduced to 9% in 2005 compared with 10% in 1999.\(^8\) However, the prevalence of stunting had decreased from 22% in 1999 to 18% in 2005. While the prevalence has not changed in urban areas, the prevalence had dropped in rural areas from 27% to 20%.

According to the \textit{District Health Information System}, the number of severely malnourished children under-5 years of age treated in the public health care facilities declined markedly between 2001 and 2005. By 2005 there were about 30,000 children treated compared to the nearly 90,000 in 2001. Anthropometric data from national surveys do not appear to confirm such a trend and it is not clear whether this reflects a

\(^5\) Bradshaw and Dorrington, 2007.
\(^6\) South Africa Every Death Counts Writing Group, 2008.
\(^7\) Nannan \textit{et al}, 2007.
\(^8\) Labadarios, 2007.
problem in the collection of the statistics or whether it reflects a changed policy in the health service. This needs further investigation.9

MATERNAL MORTALITY

The last reliable population based assessment of Maternal Mortality Ratio (MMR) was from the 1998 SADHS10 using the sibling methodology. From this survey, it was estimated that the MMR was 150 per 100 000 births for the period 1989-1998. Although various surveys differ on the extent of the MMR all studies concur that there has been a worsening MMR from 1998.11

Hypertension and haemorrhage are major causes of maternal death. Both of these conditions are preventable with good care before and during delivery. According to maternal death data collected by the Confidential Enquiry into Maternal Deaths12, the dominant cause of maternal death is ‘non-pregnancy related infections,’ primarily HIV and AIDS and pneumonia. These accounted for at least 38% of all maternal deaths. The role of HIV may be under-represented in these data. The audit found that only 46% women who died were tested for HIV and among those tested, 78% were HIV-positive.

MAJOR BURDENS

The 2000 South African National Burden of Disease Study and the Comparative Risk Assessment provide estimates of both the underlying causes of disease burden as well as the major modifiable risk factors.13 In these studies, disability adjusted life years (DALYs) were estimated to give a comprehensive measure of disease burden including both the loss from premature mortality as well as the time lived in illness or disability.14 Compared to the use of mortality as a measure of disease burden, DALYs also capture the contributions that have a large disability component relative to the number of deaths.

The results of the analysis of South Africa’ disease burden show that that the South African population has a range of conditions and related risk factors that need to be addressed if the health of the nation is to be improved. The leading causes of the burden of the disease in 2000 were HIV and AIDS, interpersonal violence, Tuberculosis, and road traffic injuries (see figure 2).

The 2000 burden of disease estimates point to the fact that South Africa is undergoing a health transition and that non-communicable diseases such as stroke, asthma and diabetes feature among the leading causes of DALYs. Non-communicable diseases accounted for 33% of the DALYs in 2000. This includes neuropsychiatric conditions (11%), cardiovascular and diabetes (8%), respiratory diseases (5%) and cancers (3%). Such conditions can be expected to grow as the population of South Africa ages and as the lifestyles change.

Injuries too, account for a high burden in South Africa (Norman et al, 2007). Given the age pattern of injuries, they result in a high number of years of life lost.

HIV AND AIDS

The antenatal clinic surveys of HIV and Syphilis indicate a rapid increase in the prevalence during the 1990’s. The prevalence was highest in 2005 at a level of 30%. Subsequent surveys have shown a downward trend. However, the change in the survey protocol between 2005 and 2006 through expansion of the number of sampled clinics makes it difficult to interpret the trend in recent years.\(^{15}\)

\(^{15}\) Dorrington and Bourne, 2008.
The prevalence of HIV has a distinct age pattern. Figure 4 shows the prevalence by age and sex from the most recent national household survey conducted in 2005\textsuperscript{17}. National-HIV prevalence also varies markedly by population group, sex and age group. In 2005, Black Africans were found to be most affected (of the order of six to seven times higher than non-Africans), whilst females aged 15-29 were three to four times more likely to be HIV positive than males in the same age group. HIV was around 3\% amongst children aged 2-14, much higher in those aged 15-59 and nearly 4\% for people in their sixties.

\textsuperscript{16} Roadmap, 2008a, pp.12-14.

\textsuperscript{17} Shisana \textit{et al}, 2005.
The reasonably comprehensive data that are available have allowed HIV prevalence, incidence and AIDS mortality to be estimated using demographic modeling as shown in table 1, showing an estimated 5.4 million people living with HIV or AIDS in South Africa in 2006, of which a total of 294,000 were children aged 0-14. These estimates are consistent with those of the Department of Health and UNAIDS of 5.5 million people living with HIV or AIDS of which 235 000 are children for 2005 but not consistent with the Department of Health's estimate that 5.27 million were infected in 2007.

The annual number of new HIV infections in South Africa peaked in the late 1990s, but the number of deaths per annum due to AIDS is expected to continue rising for the foreseeable future and as a result the number of maternal orphans is expected to rise from around 1.5 million in 2006 to a peak of around 2.5 million by 2020.
### TABLE 1: HIV AND AIDS INDICATORS AT MID-2006

<table>
<thead>
<tr>
<th>Births</th>
<th></th>
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<tbody>
<tr>
<td>• Uninfected births (over calendar year)</td>
<td>1 057 000</td>
</tr>
<tr>
<td>• HIV+ births (over calendar year)</td>
<td>38 000</td>
</tr>
<tr>
<td>• Infected through breastfeeding</td>
<td>26 000</td>
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</table>

<table>
<thead>
<tr>
<th>People living with HIV/AIDS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Total HIV infected</td>
<td>5 372 000</td>
</tr>
<tr>
<td>• Adults (20-64)</td>
<td>4 880 000</td>
</tr>
<tr>
<td>• Adult men (20-64)</td>
<td>2 179 000</td>
</tr>
<tr>
<td>• Adult women (20-64)</td>
<td>2 702 000</td>
</tr>
<tr>
<td>• Adults (15-49)</td>
<td>4 756 000</td>
</tr>
<tr>
<td>• Adult men (15-49)</td>
<td>1 946 000</td>
</tr>
<tr>
<td>• Adult women (15-49)</td>
<td>2 810 000</td>
</tr>
<tr>
<td>• Youth (15-24)</td>
<td>1 012 000</td>
</tr>
<tr>
<td>• Male youth (15-24)</td>
<td>181 000</td>
</tr>
<tr>
<td>• Female youth (15-24)</td>
<td>831 000</td>
</tr>
<tr>
<td>• Children (0-14)</td>
<td>294 000</td>
</tr>
<tr>
<td>• New infections</td>
<td>527 000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Prevalence</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Total HIV infected</td>
<td>11.2%</td>
</tr>
<tr>
<td>• Adults (20-64)</td>
<td>19.2%</td>
</tr>
<tr>
<td>• Adult men (20-64)</td>
<td>17.8%</td>
</tr>
<tr>
<td>• Adult women (20-64)</td>
<td>20.4%</td>
</tr>
<tr>
<td>• Adults (15-49)</td>
<td>18.3%</td>
</tr>
<tr>
<td>• Adult men (15-49)</td>
<td>15.4%</td>
</tr>
<tr>
<td>• Adult women (15-49)</td>
<td>21.2%</td>
</tr>
<tr>
<td>• Youth (15-24)</td>
<td>10.4%</td>
</tr>
<tr>
<td>• Male youth (15-24)</td>
<td>3.7%</td>
</tr>
<tr>
<td>• Female youth (15-24)</td>
<td>16.9%</td>
</tr>
<tr>
<td>• Children (0-14)</td>
<td>1.9%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Incidence</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Total population</td>
<td>1.3%</td>
</tr>
<tr>
<td>• Adults (20-64)</td>
<td>1.7%</td>
</tr>
<tr>
<td>• Adult men (20-64)</td>
<td>1.9%</td>
</tr>
<tr>
<td>• Adult women (20-64)</td>
<td>1.5%</td>
</tr>
<tr>
<td>• At or before birth (of births)</td>
<td>3.5%</td>
</tr>
<tr>
<td>• Breastfeeding (no. infected through breastfeeding in year/uninfected births in that year)</td>
<td>2.4%</td>
</tr>
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<table>
<thead>
<tr>
<th>Number adults (14+) infected by stage</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Stage 1</td>
<td>1 451 000</td>
</tr>
<tr>
<td>• Stage 2</td>
<td>1 084 000</td>
</tr>
<tr>
<td>• Stage 3</td>
<td>1 813 000</td>
</tr>
<tr>
<td>• Stage 4 (not on treatment)</td>
<td>511 000</td>
</tr>
<tr>
<td>• Receiving antiretroviral treatment</td>
<td>200 000</td>
</tr>
<tr>
<td>• Discontinued antiretroviral treatment</td>
<td>18 900</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number children (&lt;14) infected by stage</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Pre-AIDS</td>
<td>240 000</td>
</tr>
<tr>
<td>• Stage 4 (not on treatment)</td>
<td>27 000</td>
</tr>
<tr>
<td>• Receiving antiretroviral treatment</td>
<td>25 300</td>
</tr>
<tr>
<td>• Discontinued antiretroviral treatment</td>
<td>1 500</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AIDS sick</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• New AIDS sick during 2006</td>
<td>479 000</td>
</tr>
<tr>
<td>• Total AIDS sick mid-year</td>
<td>599 000</td>
</tr>
</tbody>
</table>

**Note:** Numbers rounded to nearest thousand to avoid spurious accuracy.

**Source:** Dorrington et al, 2006
MAJOR CAUSES AND DETERMINANTS OF THE EPIDEMIC IN SOUTH AFRICA

The central determinants of the HIV and AIDS epidemic are fairly well known and should form the platform for successful prevention programmes. Despite this knowledge, the epidemic has largely followed projected trends from 1990 to the present, suggesting that preventive programmes have been largely ineffectual to date.

The following are assessed as important risk factors:

1. Concurrent sexual partnerships;
2. Transactional sex, which involves reduced sexual empowerment of women and a reduced ability to negotiate safer sex;
3. Length of the lifetime period of risky sexual activity prior to marriage;
4. Girls under the age of 20 having sexual intercourse with older partners (5 years or more older);
5. Male circumcision, which results in a lowered risk of infection for the male; and
6. Alcohol and drug abuse, due to the disinhibiting effect to safer sex.

TUBERCULOSIS

The number of reported cases of Tuberculosis (TB) has shown a dramatic break in trend from 2000. Reported cases have increased from 151,239 in 2000 to 353,879 by 2007 (134.0%). The treatment success rates remain low, with death and default the most frequent negative outcomes.21

An incidence estimate based on registered deaths suggests that a 70% case detection rate target was reached for the first time in 2006. However, in 2006 only one third of TB patients were tested for HIV.22

The treatment default rates remain high however, with significant variability by health district. When the cases not cured amount to around 44% are put together with the cases not reported of around 30%, approximately 74% of TB cases are not properly dealt with by the health system. Overall the efficiency with which TB is being managed by the district health system is very low and contributing to the increases in incidence of TB and multi-drug resistant TB (MDR-TB) and extensively drug resistant TB (XDR-TB).

South Africa is now budgeting significantly more for MDR-TB and XDR-TB than it does for the far cheaper and more cost effective first line treatments needed for majority of cases. This is occurring while at the same time the emphasis on ensuring that the first line therapies are successful is clearly inadequate.

We currently have highly effective short-course therapy available to treat TB. In South Africa nationally we achieve only a 54% cure rate for new smear-positive TB cases. Some provinces are unable to cure a third of their TB cases.

There is an urgent need to develop drugs to treat the few patients with confirmed XDR TB. However, more drugs and more complex regimens will be of little use overall until we start to treat new smear-positive cases adequately. The introduction of new drugs into an already failing programme is likely to result in more resistant cases than they would treat.

mortality in the year 2000. The burden of disease estimates of the injury rates in South Africa is exceptionally high when contrasted with those of the WHO regions.\textsuperscript{24}

There is limited data to assess the trends in the injury burden since 1994, but there are strong indications that homicide rates have decreased. The murder rate reported by the South African Police shows a drop from levels of 70 per 100,000 population to about 40 per 100,000.\textsuperscript{25}

\begin{center}
\textbf{NON-COMMUNICABLE DISEASES}
\end{center}

Cardiovascular diseases, diabetes, respiratory diseases and cancers together account for 16\% of the DALYs in 2000. Many of these chronic conditions share several common risk factors related to unhealthy lifestyles i.e. tobacco use, physical inactivity and diet that translate in excess body weight, high cholesterol, high blood glucose levels and high blood pressure, all of which are associated with poor health outcomes. As the population ages, such conditions will certainly become more prevalent. The South African adult population currently displays high levels of these risk factors albeit with distinct gender differences: higher proportions of men use tobacco while higher proportions of women are overweight or obese.

Many non-communicable diseases develop during the life-course and emerge during adulthood. They become more prominent as a population adopts unhealthy lifestyles and undergoes demographic ageing. The 2001 Population Census found that 7.3\% of the total population were above 60 years of age. This proportion is among the highest in Africa, with the exception of the two island populations of Réunion (10\%), Mauritius (9.8\%), and Tunisia (8.7\%). While the population in the age group 0-14 years is expected to grow by 10\% in the period 1985-2025, the population above 60 is expected to increase almost three-fold, with important implications for changing health need.

\textsuperscript{24} Norman \textit{et al}, 2007.

\textsuperscript{25} South African Police Services, 2008.
CONCLUSIONS

South Africa is presently experiencing an unprecedented change in its burden of disease. On top of an existing, and expected, change in non-communicable diseases due to urbanization and an aging population, the HIV and AIDS pandemic has caused an increase in TB prevalence and made mothers and children more vulnerable. The increased prevalence of TB together with a poor public health system has caused the emergence of drug resistant TB (MDR-TB and XDR-TB). Aside from the specific health risks posed by this relatively recent development, the funding requirements for resistant TB are considerably more onerous than the first-line treatment. The reasons for the potential poor performance of the public health system therefore need to be explored carefully.
THE HEALTH SYSTEM NOW

OVERVIEW

South Africa's poor health status performance could arise from a number of potential sources including, poor resourcing, problems with the institutional framework, poor strategic decision-making, and unexpected and unforeseen factors beyond the control of government and the health system. The evidence suggests that all these factors have played a material, but not necessarily equal, role in the poor performance of the health system to date. Understanding the contribution made by each factor to performance is therefore a necessary precursor to defining a path toward success. This section therefore provides a considered assessment of South Africa's health outcome achievements as well as the responsiveness of the system. The final conclusions of this section provide a starting point for the consideration of reforms, both immediate and more long-term, required to alter the current course. A central finding of this assessment is that the health system is performing poorly as a consequence of factors under the control of government. Furthermore, and more important than financial resources, the most important factor relates to poor leadership and structural weaknesses with the institutional framework.

FINANCING – IS SOUTH AFRICA AN OUTLIER?

One potential explanation for South Africa's poor health status could lie in funding levels made available to the public system. However, the evidence does not support this finding. South Africa is below its peers of a similar level of income in the portion of General Government Expenditure allocated to health spending (10.6% compared to a peer group median of 11.9%) but above the median level of per capita expenditure. (Table 2 and figure 7).

The international average and median for General Government Expenditure allocated to health spending is 11.4% and 11.0% respectively. Within South Africa's peer group the average and median is higher at 11.6% and 11.9% respectively. However, countries quite similar to South Africa are higher than the average:

- Mexico: 12.5%
- Argentina: 14.2%
- Chile: 13.2%
- Peru: 13.1%

South Africa's health outcome indicators fall significantly below the average and median for all countries and for its peers. (Table 2 and figure 7). Out of 30 peer countries South Africa is the only one to experience a worsening of the Infant Mortality Rate (IMR) per 1,000 live births over the period 1990 to 2006. South Africa is also unique amongst its peers in facing worsening maternal and child mortality.

As South Africa performs poorly relative to its peer countries, including many with far lower levels of per capita health expenditure and GNI per capita, its performance cannot properly be explained by the levels of government expenditure on health. The health system appears to be under-performing with its given level of expenditure.
### TABLE 2: KEY INDICATORS OF SOUTH AFRICA'S HEALTH OUTCOME'S PERFORMANCE

<table>
<thead>
<tr>
<th></th>
<th>Government Expenditure on health as % of total Government Expenditure 2005</th>
<th>Per capita Government Expenditure (PPP Int. US$), 2005</th>
<th>Per capita Government Expenditure on health at average exchange rate (US$), 2005</th>
<th>Maternal mortality ratio (per 100,000 live births), 2005</th>
<th>IMR per 1,000 live births 2006</th>
<th>Change in IMR per 1,000 from 1990 to 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Africa</td>
<td>10.6</td>
<td>338.0</td>
<td>182.0</td>
<td>400.0</td>
<td>56</td>
<td>11</td>
</tr>
<tr>
<td>All WHO Countries</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>11.4</td>
<td>573.5</td>
<td>542.4</td>
<td>302.8</td>
<td>37</td>
<td>(14)</td>
</tr>
<tr>
<td>Median</td>
<td>11.0</td>
<td>211.0</td>
<td>109.0</td>
<td>130.0</td>
<td>21</td>
<td>(9)</td>
</tr>
<tr>
<td>South Africa Peers (15 above and below per capita GNI in PPP US$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>11.6</td>
<td>306.5</td>
<td>155.7</td>
<td>109.9</td>
<td>21</td>
<td>(13)</td>
</tr>
<tr>
<td>Median</td>
<td>11.9</td>
<td>284.0</td>
<td>155.0</td>
<td>77.0</td>
<td>18</td>
<td>(10)</td>
</tr>
</tbody>
</table>

Source: All data based on the World Health Organization database.

### FIGURE 7: SOUTH AFRICA’S HEALTH STATUS PERFORMANCE COMPARED TO GOVERNMENT EXPENDITURE ON HEALTH

[Graph showing government expenditure and maternal mortality ratio comparison]

Source: All data based on the World Health Organization database.
When consideration is given to the budget allocations experienced from 1997/98, however, there is evidence that the system has faced material financial constraints. Three broad phases can be determined:

1. **Period 1998/99 – 2001/02**: No real improvement occurred in per capita expenditure, with an increase in unit costs. Increased staff costs related to rank and leg promotion decisions negotiated at the central bargaining chamber (coordinated by the Department of Public Service Administration), which increased staff costs without a consequent increase in budget.

2. **Period 2002/03 – 2004/05**: The District Health Service begins to receive funding improvements to roll out improved HIV and AIDS programmes. No other part of the health systems faces a similar improvement.

3. **Period 2005/06 – 2008/09**: The District Health Service receives substantial improvements across the board. This includes funding for the AIDS treatment programme. However, public hospitals show no gains apart from an improved capital allocation.


![Graph showing real per capita expenditure on the public health system from 1998/99 to 2008/09.](image)

Source: Provincial Budget and Expenditure Statements, Statistics South Africa (mid-year population estimates)

Based on the above, although there have been fairly substantial improvements in budget/expenditure within the public health system from 2005/06, much of this has been concentrated on the district system, with public hospitals largely unchanged for ten years. However, the unit cost increases that occurred generally from 1998/99 (also discussed in the section below dealing with human resources) imply that the public hospital system has faced a real decline in budget. The improved funding for the district system, although good, may not yet have translated into improved health outcomes due
to the limited time period involved. However, an important consideration going forward is South Africa’s altered burden of disease, which suggests the need for a higher level of overall financial commitment to the public health system.

**RESOURCE ALLOCATION WITHIN THE PUBLIC HEALTH SYSTEM**

Resource allocation within the public health system can be divided into two broad elements:

- Nationally allocated funds associated with certain national priorities; and
- Unallocated funds made available to provincial administrations and local authorities to allocate as they see fit.

Funds allocated by the national government through conditional grants are ring-fenced and must be spent on nationally determined priorities. These are either some general category of services, such as tertiary hospitals, or the incremental cost to the health system for the provision of teaching and education, or some very specific programme, such as HIV and AIDS.

However, the major portion of the nationally determined allocation, the conditional grants for tertiary health services and teaching and education, bear no relation to specific policy parameters, services or functions. Given this, no specific health policy objective can be achieved. For all intents and purposes these allocations are unconditional general allocations as they apply to the health function in each province.

It is argued strongly in various quarters that this resource allocation configuration fragments policy-making by emasculating the impact of nationally determined priorities. It is furthermore argued that, inadequate mechanisms have been introduced to establish a linkage between the determination of national priorities and ensuring their delivery within lower tiers of Government. Such mechanisms include the development of national norms and standards and associated national policy frameworks.

An additional concern arises with respect to the funding of district health services. The National Health Act makes provision for the development of District Health Authorities which have taken over the authority for ambulatory health services from local government. However, no clear financing framework has been established for the services.

Historically many primary care services were funded from local government taxation. However, due to the absence of any clear funding framework local authorities will withdraw any funding derived from their own revenue sources, shifting the burden to provinces.

The budget determination processes at all levels of the system are inflexible and involve limited input from service providers. In some instances this arises from inadequate

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26 These are referred to as the Provincial Equitable Share (PES) and the Local Government Equitable Share (LGES) allocations respectively.


capacity. However, it is quite plausible that the capacity problems have arisen as a result of poor resource allocation decisions coupled with the limited scope offered for high quality professionals to remain in the civil service. The resulting centralised budget-determination process breaks the relationship between the budget allocation and health system priority needs.

The budget system is also leading to defensive conduct on the part of provincial authorities and hospitals. In the absence of a deeper richer accountability framework related to service delivery, adherence to budget is given precedence. As a consequence health facilities attempt to avoid patient care obligations where they can for fear of financial implications. In some instance this affects the efficiency of referral arrangements.

Budgeting at all levels of the health system now frequently involves a dislocation between the financing of capital and recurrent expenditure. Ideally the capital expenditure programme should be closely linked to a long-term predictable stream of recurrent funding. Capital spending programmes are often determined by a different set of priorities than those affecting the recurrent spending programme. This schizophrenia can occur at all levels of the system, including within facilities. A further concern is that the maintenance allocations for health infrastructure and equipment is unrelated to the replacement value of the existing capital stock.

### HUMAN RESOURCES

Although the levels of the government budget for health are not out of step internationally, the public sector appears to have faced significant staff reductions from around 1997/98. It is possible that staff reductions go back further than this period. However the information for the country as a whole is not reliable prior to 1997/98.

**FIGURE 8: PUBLIC HEALTH SECTOR EMPLOYMENT TRENDS (HEADCOUNT), FROM 1997/98 TO 2007/08**

Source: Persal.
In 1997 a staff headcount reveals around 251,000 staff members. By 2002 this had declined by around 36,000, and thereafter increased again to 251,000 by 2007/08. Thus from 1997/98 to 2007/8, a period of 11 years, no increases in staff levels had occurred despite a significant increase in the population making use of the public sector and an increased burden of disease resulting from HIV and AIDS. The improvements in staffing do not appear to be distributed proportionately across the system, with public hospitals unaffected. If this proves to be the case a reduction in the performance of public hospitals from 1997/98 was a probable outcome.

When adjusting staff levels for population growth by 2007/08 a total complement of 315,087 would be required, a difference of 64,087 from the actual number of filled posts.

Adjusting staff levels for both population growth and burden of disease, a total complement of 330,791 was required by 2007/07, resulting in a difference from the actual of 79,791.

The staff shortfalls suggest an under-spend on staff relative to 1997/98 norms of:

- R9.7 billion - where population growth is accounted for; and
- R12.0 billion - where population growth and the burden of disease is accounted for.

The reductions in staff correlate with periods of budget austerity, with growth correlated with real increases in budget. This shows that public health staffing levels reduced due to constrained budgets and increased unit costs rather than from any other cause (such as an increase in the private sector). It also shows that the public system can attract staff back if improved budgets are allocated.

Staffing levels are also affected by the possibility of a medium-term supply constraint as there is presently no system in place to ensure that the production of health professionals occurs in relation to their need over time. Presently decisions on health professional training and development are determined independently of national policy and indications are that levels have not changed over the past 10 years.

### THE PUBLIC DELIVERY SYSTEM

The public health system is responsible for the delivery of both services which are collective in nature and those that are personal and provided directly to a patient. Aside from outcome indicators, there is a need to ascertain whether the public delivery system is operating effectively. Various evaluations of the health system strongly point to weaknesses at almost every level. At the level of service delivery both hospitals and district services function poorly with strong indications of a service that is unresponsive to health needs.

With respect to hospital services a recent evaluation by the national Department of Health (NDoH) found important quality assurance concerns with the top ten areas listed as follows:

1. “Safety: Infection prevention and control especially airborne / TB”;
2. “Safety: Patient safety system / adverse events monitoring”;
3. “Clinical care: Clinical governance / quality improvement / audit / records”;
4. “Clinical care: Medical equipment and Radiology OR EDL availability”;
5. “Governance: Delegations and management capacity”;
6. “Governance: Information and management”;
7. “Patient experience of care: Patient perceptions, measurement and response”;
8. “Access to care: Waiting times measurement and queue management”;
9. “Infrastructure and environment: Safety and functionality of buildings”; and
10. “Public Health: Integrated planning with other authorities”.

Although the above reflect symptomatic concerns with the functionality of the hospital system they do not differentiate between cause and effect. The governance issues identified suggest the absence of appropriate delegations to the hospital, including the implementation of information systems relating to their core business. This highlights that hospitals feel disempowered in responding to patient needs. This is also reflected in the tenth cause which refers to capital expenditure, which is experienced as outside the discretion of hospital management.

If this evaluation is representative of the entire public hospital system (also see quotation from Van Holdt (2008) below in relation to Baragwaneth Hospital in Gauteng), all the other listed areas potentially derive from the inability of hospitals directly to see to the needs of their patients. The NDoH assessment suggests that the structures (e.g. the province or national government) make key decisions affecting patient quality of care while they are not directly accountable for patient outcomes. This points to an important flaw in the scope of authority allocated to the public hospital system.

“The lack of competent managers is evidenced by:

“the filling of middle and senior management posts with insufficiently qualified or experienced people.

“for those individuals who do have the necessary training and experience, and who may show drive and ambition to succeed in the public service, their rise up the levels of seniority can be rapid with such staff staying only months in a post before applying for the next level of post in whatever government department. This has the effect of leaving no skills transfer embedded in those that remain

“the number of senior level posts that remain vacant for long periods

“the upward transfer of problems to a higher level for resolution which frequently results in no resolution

“frequent absence of basic equipment, supplies, drugs and other resources at all levels of the system despite sufficient budgets often being available”.

“The paucity of support functions is shown by:
“the absence of human resource, financial, information system and procurement staffing at the level where clinical care takes place. In hospitals wards, at best, a ward clerk may be available to assist with patient admission procedures. The same pertains at clinic level. There is no support available in terms of data management, stock management, resolution of employment issues etc.

“support functions – HR, finance, procurement, systems are located centrally – are thus functionally and physically dislocated from where the critical needs must be addressed – where patient care takes place. The procurement source for a township clinic may well be located in another town altogether.

“the term paucity also links to the previous matter of lack of competencies. Thus even centralised support functions offer poor service levels to users. For example a tertiary hospital with a budget of R1,6 billion has one senior level procurement officer.”

Von Holdt, 2008, pp.10-11

A similar finding is made in relation to the district system through an evaluation of the National Tuberculosis Control Programme in the Alfred Nzo Sub-district within the Eastern Cape found that oversight and supervision of the programme was lacking due to patient care taking a lower priority:

“In the Eastern Cape the Primary Health Care (PHC) Coordinators and Programme Coordinators are expected to supervise clinics. However, as senior members of the District Management Team, the administrative demands of the provincial and national health departments take priority over implementing the NTCP and other PHC services. Planned clinic visits are cancelled with alarming regularity and months can pass without one supervisory visit taking place.”

Bamford et al, 2004, p.225

It is important to determine whether the indicated instances are systemic and consequently widespread. An indication of the general condition of the health service is available through studies of the quality of care associated with pregnant women and deliveries which suggest the prevalence of predominantly poor quality services that are insensitive to patient needs and serves to confirm the generalisability of the findings by the NDoH and Bamford et al (2004).

“In the public sector, women are not given appointments for an antenatal visit and many will arrive at the clinic
prior to the facility opening to ensure they are seen. One study identified that 71% of women had already arrived for antenatal care by 7.30 am and no woman came after 10.30 am. Another study found that all antenatal patients had arrived before 1pm. ... The same study discussed above showed that although women arrive early for their antenatal appointment and may spend several hours within the facility they have very little contact with the health providers. The average antenatal first visit patient spent almost 4 and a half hours in the clinic ... while only 28 minutes was spent interacting with a provider. Antenatal repeat patients spent three hours at the clinic with only 14 minutes of provider contact time...”

“The nature of antenatal services in the South African public sector does not encourage good provider patient communication. Patients will often see a different provider for each procedure meaning that it is not easy to establish a relationship with any particular provider. Services are often provided without privacy in that antenatal patients will sit together and take turns in receiving a service such as blood pressure in full view of other patients. This makes it difficult for a patient to discuss personal problems or concerns without being overheard. Women are usually grouped together and may be wearing examination gowns. This does not make it appropriate for partners to attend the consultation.”

“Although many studies report that patients are generally satisfied with the quality of ANC services, the same studies show that quality was a problem. This may be because expectations of a service are generally low.”

“At a national level, quality of care in contraceptive services has shown that 20% of women reported that the provider shouted or scolded the patient in a family planning setting.”

“Other studies have reported poor quality of care in antenatal settings. This poor quality of care extends into the delivery, where a woman will often deliver without the support of a partner or family member. Delivery settings do not often give privacy to the woman making it difficult for partners to attend the delivery.”

“Poor quality of care may be related partly to low staff morale. The nursing dynamics study found that 27% of nurses reported that they did not care for patients like they used to and two thirds (60%) [sic] felt they no longer felt motivated to work as hard as they could. Poor motivation was blamed on a number of factors including
poor promotion prospects, poor management and staff shortages."

Source: Beksinka et al, 2006

The assessment provided above by Beksinka (2006) appears consistent with the other reviews cited which is that providers, and the authorities to which they report, appear to be under a diminished organisational obligation to be responsive to patient needs. This low level of organisational responsibility is evidenced in the surveys that show low staff morale (60%) and self-reported poor care (27%). Were any health authority, facility, or organisation to be concerned about patient care and outcomes they would address staff morale and conduct as well as the questionable conditions under which care is provided. Overall this section largely confirms the view that large parts of the public health system are not adequately accountable to any party for the quality of their service delivery.

THE PRIVATE SYSTEM

There is a skewed distribution of health resources between the public and private systems. One possible negative outcome of a large private system is that it can lure away health professionals from the public sector. However apart from that, there is little evidence that the private system is systemically harmful to the public sector. Indeed, as indicated above, many of the human resource problems within the public system arise primarily from decisions of the public system itself.

Private systems can however undermine public objectives where they emerge and flourish within a regulatory vacuum and where they are treated as a mere residual component of the public system. Within developing market economies with vulnerable public systems, such poor public policy could lead to delivery failures in the public system. There is strong evidence to show that the policy framework in relation to the private health system in South Africa has been incomplete, resulting in increased costs, the systemic over-supply of services, and diminished risk pooling (leading to underutilisation of the over-supplied services).29 As with other key parts of the health policy, this points again to the absence of a strategic vision for the health system as a whole.

For the year ended 31 December 2007 a total of R56.0 billion was spent on private services by medical schemes.30 By comparison, for the 2007/08 financial year, the public sector’s provincial health expenditure amounted to R59.2 billion. As at the end of 2007, there were 7.5 million beneficiaries31 in medical schemes in 122 schemes, of which the majority (73%) were in 41 open schemes. The beneficiaries covered amount to around 53% of all the people in families with per capita incomes in excess of the tax

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29 Department of Health, 2002.

30 Council for Medical Schemes, 2008b.

31 The second quarter estimates for 2008 indicate that medical scheme beneficiaries now total 7.8 million, or 16% of the total population.
threshold. Consolidation of medical schemes has consistently occurred in closed (restricted) employer-based medical schemes.32

From 1989 a fairly significant growth in private sector expenditure has occurred, with much of this the result steep increases during the 1990s in hospital and pharmaceutical costs. An important new contributor to costs during the 1990s involved administration-related expenses which grew in response to a significant switch from lower cost closed schemes to higher cost open schemes. This rapid switch resulted from the deregulation of the Medical Schemes Act that occurred from 1 January 1994 and the abandonment in 1993 by the government of mandatory medical scheme membership for employees of the state.33

From 1999 hospital costs began to increase dramatically with some stability on other provider costs (except pharmaceuticals). Private hospitals therefore became the predominant driver of cost until 2004. Thereafter, pharmaceutical costs reduced, due to the introduction of the single exit pricing mechanism and the Medicines and Related Substances Control Act of 1997.

However, after a Competition Commission ruling to eliminate central bargaining of private sector fees, real increases occurred in specialist costs, which continued thereafter.34 From 2003 per capita medical scheme costs stabilized and have remained roughly the same in real terms for five years. Claims costs have been stable for three years, while non-health expenses (which mostly include administration) have been stable for seven years. (See figure 9).
FIGURE 9: Medical scheme per beneficiary costs have been largely unchanged for five years, with claims costs steady for three years, and non-health unchanged for seven years.

Source: Council for Medical Schemes, audited annual financial statements of medical schemes for the period.


Source: based on the GHS for 2006 and the Council for Medical Schemes.
Coverage by medical schemes stands at 16% of the total population with the remainder either using state services or paying out-of-pocket. Roughly 50% of the total population make use of out-of-hospital care services at least once a year despite having access to free care. When weighted for utilisation an effective catchment population for private out-of-hospital care amounts to 32% of the total population or 15.3 million people. This differs from the catchment population for private hospital services which correlates with medical scheme membership (i.e. 7.5 million). (See figure 9).

Private hospital cost increases also result from the excessive licensing of acute beds and expensive technology by provincial health administrations, the recurrent and capital costs of which are subsequently imposed on medical schemes. There are presently 28,000 private beds in South Africa, with an additional 4,000 added between 2004 and 2008. The bed over-supply is roughly 10,000 assuming a bed occupancy rate of 80%.

Based on this, the catchment populations for public and private sector services differs depending upon whether they are hospital-based or out-of-hospital. The reason for this is fairly straightforward. Hospital expenses are infrequent and very costly per event, while out-of-hospital care is more frequent and lower in cost per event. Therefore hospital services are less amenable to out-of-pocket purchases than out-of-hospital care. Consequently, catchment populations without insurance, irrespective of income, will struggle to access private hospital services.

These inconsistencies raise important questions concerning options to improve risk pooling such that out-of-pocket payments are eliminated for low-income primary care patients and the over-supply of hospital and related services in the private hospital sector is put to better use. This suggest the need to reconfigure aspects of the health portion of the contributory social security system to strengthen risk pooling and allow greater access to medical scheme cover for low-income groups.

**HEALTH INFORMATION SYSTEM**

The flow and availability of accurate information is a prerequisite for a well functioning health system. A review of South Africa’s National Health Information System (“NHIS”) indicates that a unitary information system was implemented in 1999 which provided for routine reporting from the facility level through to the national level. This system provides a significant amount of routine information and has achieved some success. However, a number of important concerns exist:

*There is inadequate investment in the system, with a shortage of dedicated and appropriately skilled staff at every level.*

*There remains a “lack of an information culture in the public health sector, possibly because of a generation of...*

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35 Council for Medical Schemes, 2008a


managers who have had insufficient training or experience in” health management information systems.

There are insufficient policies and guidelines to guide data management processes and standardised practice;

Managers lack access to good quality data with a number of parallel, usually paper-based, programme-specific information systems resulting in a fragmented system;

The TB electronic register is not integrated with the notification system, resulting in a substantial number of unreported cases (50% of all cases);

Poor co-ordination with information collected from other government departments and the private sector; and

Information is not fed back to lower levels of the health system.

Kumalo (2007) highlights the absence of a conceptual framework to guide the national health management information systems strategies.

“Investments in MHIS are yielding some results, however M&E units are non-existent in many provinces. It is important that as HMIS and M&E practices are linked and that managers are guided by such a road map (‘the conceptual framework’) to guide the development of HMIS policies, strategies, guidelines and practices, nationally as well as provincially. The national and provincial DoHs are suitably positioned to lead the development of such a HMIS framework collaboratively with all role players. This is a critical area that requires further development.”

The noted absence of a conceptual framework for health information and management is however potentially indicative of the wider absence of a strategic direction for the health system. It raises the question whether a conceptual framework can be effective under such circumstances.

Working Group discussions in this (Roadmap) process identified the following issues with respect to health information:

- Significant reliance is placed on information to decide on priorities and to allocate resources in health and related functions. However, the health information systems in place are weak, unreliable, and in some cases unusable.

- Health-related surveys in many cases are not co-ordinated between departments, agencies and private initiatives. Different surveys use different approaches without any general consensus on best practice approaches. The resulting information often cannot be pooled, and sampling is too limited. As a consequence the results are not definitive and important policy questions cannot be answered.
The systems for collecting health information have been in development over a number of years and the consensus is that they are far from adequate. Nevertheless, a base exists which can be improved going forward. The experiences of the past ten years offer the potential for reliable insights on how to significantly improve health information collection and analysis.

There are conflicting estimates of South Africa’s key outcome indicators. Although all suggest serious public health problems, the data varies widely with different groups championing different estimates.

Although reporting systems are in place, the absence of a reliable national system affects the ability of the country to prioritise health and related interventions. Problems include:

- There is no reliable national system in place with the existing arrangement subject to significant institutional weaknesses;
- There is no guiding forum for a national information system;
- Data is sometimes published that is clearly unreliable;
- Data that is important is sometimes not made public because it may reflect poorly on departments or Ministers;
- There are multiple reporting systems;
- The antiretroviral programme is in need of a proper system;
- The implementation of information systems at a facility level and within government are both patchy and weak;
- Existing reporting systems involve information going up but never down again;
- No adequate legislative framework exists governing the production, quality and distribution of health information;
- Capacity is weak at all levels of the system with no standardised training requirements for information officers (presently they come through librarian training system);
- Key outcomes surveys have such small sample sizes that they cannot be used to identify specific communities at risk and are only useful at a national and provincial level;
- The private sector is presently excluded from the reporting requirements; and
- Medical conditions that require ongoing treatment and management (e.g. chronic conditions, and AIDS) lack dedicated supporting information systems.

It is evident therefore that the health system is unable to measure outputs and outcomes relating to the core business of the health system. This includes the overall absence of clinical and patient-based information. The collection of information is furthermore required to effectively determine health strategies and priorities.
FINDINGS

The available evidence suggests that failures with the public health system must in part explain the health status outcomes experienced by the country. Although it is possible that the HIV and AIDS pandemic could be regarded as an exogenous factor in this determination, when consideration is given to other forms of assessment, the system is characterized by poor performance.

Although severe budget constraints coupled with unit cost increases over the past ten years placed the system in difficulties, South Africa’s government expenditure on health is not unduly low by international standards. Information from various alternative sources provides evidence of a public system that is generally unresponsive to the needs of the population.

Overall findings are:

1. The public health system is not severely under-resourced relative to international benchmarks, suggesting that poor outcomes have not arisen primarily from severe budget constraints;

2. Based on various reviews the public health system as a whole is consistently characterized by systemic under-performance due to institutional factors;

3. The identifiable poor performance of the public health system, must be regarded as a substantial contributor to South Africa’s poor health outcomes;

4. Service delivery at both the hospital and district levels is impeded by an inadequate devolution of authority to enable them to make all the operational decisions relevant to ensure effective patient care;

5. Strategic resource allocations to, and within, the public health system are largely unrelated to explicit policy priorities, leaving other tiers of the system with the discretion to deviate, undermining the effective achievement of national priorities;

6. There is no effective human resource strategy in place to ensure:
   a. The public system is adequately resourced; and
   b. The country as a whole has sufficient health professionals;

7. Due to the absence of a clear policy framework, human resources within the public health system have declined substantially from 1997/98, with public hospitals particularly affected;

8. In conjunction with the numerical decline in health professionals, staff quality, conduct, performance, and morale have also declined;

9. To the extent that the private system acts against the interests of the public system and social goals, this appears to arise largely from the absence of any strategic private sector approach rather than because the private sector is inherently harmful;

10. The private sector has evidently evolved substantial over-capacity as a result of poor decisions in relation to hospital licensing, with no policy framework in place to effectively take advantage of the services thus brought into being; and
11. Health information systems are incomplete and not used to effectively drive decisions within the health system, whether at a policy or managerial level.
INSTITUTIONAL REFORM

OVERVIEW

Although there is a case to be made that South Africa's deteriorating health outcomes result from exogenous factors, such as an unpreventable AIDS pandemic, there is substantial evidence that the health system is deeply flawed from an institutional perspective. The importance of institutional design for achieving improvements in service delivery, which to date has not been seen as a priority, needs to become a central theme of health systems reform.

Due to the above institutional weaknesses the policy response framework is diminished; information systems are not properly developed and used for decision-making; there is no systematic approach toward human resource planning and use; the planning of services and priorities are compromised; patients are not protected from poor quality service delivery; and needed policies are poorly implemented. To re-balance the system institutionally the recommended strategic approach involves:

The centralization of strategic policy development at the level of national government, underpinned by a centralized system of resource allocation and supported by:

Improved technical capacity at the national level capable of performing these functions professionally; and

Structured consultation mechanisms to support policy development and accountability.

The decentralization of the authority to carry out well defined operational and service delivery functions including:

Strategic national agencies;

Public hospitals; and

Health districts.

The refocusing of provincial administrations away from operational decisions, and instead towards strategic provincial policy development, policy implementation, and oversight.

NATIONAL

The national level of government needs to focus its attention on the development and implementation of policy that requires a national focus. This would include ensuring the achievement across the country of minimum norms and standards with respect to every aspect of the health system. It would also include the strategic targeting of resources at public health priorities that would not be prioritized if left to provincial and local
governments or the private sector. The capacity of the NDoH to cope with strategic policy development and centralized resource allocation is severely compromised at present and needs to be addressed if policy gaps are to be narrowed.

The major focus areas for the NDoH are:

**Policy development**: develop explicit national policy frameworks, including institutional and financing arrangements, underpinned by national legislation, in the following areas:

Hospital services;
District services;
Emergency medical services; and
Training of health professionals.

**Resource allocation**: implement and manage a national resource allocation mechanism capable of matching policies to resources; and

**Oversight**: implement a complete system of oversight for all national policy priorities sufficient to monitor their implementation, administration, outputs, and outcomes.

NATIONAL CONSULTATION ON STRATEGIC POLICY

While it is important to strengthen the capacity of the NDoH this will not prove sufficient to improve the quality and timing of areas of strategic policy.

To support internal technical capacity it is proposed that specific standing national consultative structures be established in the following areas:

HIV and AIDS, TB and other infectious diseases;
Non-communicable diseases;
Human resources;
Maternal and child health;
Quality assurance;
Health information systems; and
Private health.

These consultative fora should be provided for in the *National Health Act* with specific advisory functions, including who participates, and what outputs are required. Participation should be inclusionary rather than exclusionary and its deliberations open to full public scrutiny.
These fora would permit an ongoing and structured dialogue between the key role players in the health system and the policy-making functions of Government. The relevant NDoH units related to any particular forum would provide secretarial support for their functions. Reports from these fora will be tabled in Parliament for consideration.

The use of consultative fora in this manner will:

1. Improve the participative nature of policy development in all areas of national importance;
2. Improve accountability in all areas of national importance through the open and public nature of the deliberations; and
3. Significantly strengthen the content of policy by providing multiple role-players with the opportunity to provide structures inputs on an ongoing basis.

DECENTRALISED NATIONAL FUNCTIONS

The decentralization of certain functions that are national in nature involves the establishment over time of specialized institutions pivotal to the achievement of a well functioning health system. Decentralisation in this instance involves the establishment in statute of organizations with the authority to carry out important cross-cutting functions. Existing examples include: regulatory authorities (Health professions Council, Council for Medical Schemes, Medicines Control Council, etc.); and the National Health Laboratory Services.

Within the Organization of Economic Co-operation and Development ("OECD") countries, there has been a large increase in the number of agencies. The reasons provided are:

**Specialisation**: this results from the sharper focus on a certain domain or type of activity:

“It usually has a smaller span of control and is able to separate policy-making, implementation and supervision. This ensures that enough time and consideration are given to implementation and supervision, in contrast to a ministry where the priority lies in policy making.” (Merk, 2005, p.114).

**De-concentration** can also stimulate efficiency because it might be easier to apply private sector management models than it would in a ministry.” (Merk, 2005, p.114).

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38 Since 1988 131 new agencies were established in the United Kingdom. Within Korea 23 new agencies have been established from 1999. (Merk, 2005, p.114).

39 These are based on Merk, 2005, p.114.
Independence from political decision-making: this is particularly important where conflicts of interest may exist in the supervisory role.

**Centres of expertise**: the narrower focus coupled with the use of more efficient (private sector) management models can result in the accumulation of appropriate expertise, which might otherwise not arise in a conventional government department.

**Identity**: the establishment of a clear and distinct identity for a function can be an important way of improving the relationship between the function and the served population. It can also serve to attract high-quality staff.

**Simplicity**: the narrower focus of an agency relative to a government department can assist in aligning the incentives of officials with "public purposes" and "reduce the scope for opportunistic behaviour".

**Closer orientation to the served population**: the greater degree of specialisation coupled with a narrower focus can serve to improve the relationship between the function and the served population.

Government has established many agencies and institutions in order to improve focus and operational efficiencies. Such agencies are also better able to attract higher quality staff than would occur within the civil service. Institutions established with this in mind include: the Competition Commission; the Reserve Bank of South Africa; the South African Revenue Services; Statistics South Africa; the Social Security Agency of South Africa; and the Unemployment Insurance Fund.

**The following functional areas could benefit from agencification:**

- Resource allocation and strategic purchasing;
- A National Health Information System;
- Quality assurance and enforcement;
- Price regulation and cost-effectiveness analysis; and
- Certificates of need in relation to hospitals and expensive technology.

Although the above are listed as specific functional areas, consideration could be given to the consolidation, where appropriate, of more than one of these functions into either existing agencies or into a single agency.
PROVINCIAL GOVERNMENT

Provincial governments have not performed well in planning and rendering health services over the past fourteen years.

Consideration should therefore be given to a reconsideration of their role within the health system, moving them away from operational decision-making on behalf of services and refocusing them on policy and oversight. This would require ultimately that the head of a provincial health department cease to be the accounting officer for health districts, emergency medical services, and public hospitals.

This framework should be implemented in national legislation and would transfer the authority for the functions to newly defined public entities. The residual authority for policy and oversight would also benefit from clear specification in legislation.

CENTRAL AND REGIONAL HOSPITALS

To improve the performance of South Africa’s public hospital system strong consideration needs to be given to the implementation of a decentralized governance model. As with the establishment of agencies, the principal rationale is to consolidate the functional authority into an organization with a narrow span of control. This would leave provincial governments with the authority for policy and oversight.

A potential concern with this approach is that it could place onerous obligations on a health facility at a time when their managerial capacity is weak. However, although capacity is an issue, this is seen as a consequence of the governance model, and is unlikely to improve without such changes.

An altered governance framework for public hospitals would inter-alia require:

The framing, within national legislation, of new governance options for hospitals which should:

Provide for the devolution of key decision-making powers;

The establishment of an independent board with powers to appoint and remove a hospital Chief Executive; and

Clear definition of the roles and responsibilities of the executive.

A clarification of the relationship between provincial and/or national policy and oversight functions is also needed.

Consistent with international practice, public hospitals should be funded in a more sustainable manner with formalized agreements on services to be provided and
appropriate reimbursement. Hospital management should be entirely free to make all
procurement decisions subject to appropriate oversight and budget constraints. They
should be required to comply with the Public Finance Management Act and be audited
by the Auditor General.

For autonomy to be complete, hospitals would operate their own bank accounts, take direct responsibility for the maintenance and upkeep of their facilities and equipment, and enter into contracts and arrangements with any funder of healthcare services.

HEALTH DISTRICTS

Restructuring health districts to improve performance is an essential pre-requisite for
achieving any improvement to the public health goals. In large part health districts lack
sufficient coherence to carry out complex tasks. Poorly functioning districts hinder the
efficient implementation of newly required programmes (HIV and AIDS and TB).

As with hospitals, the problem lies centrally with the governance framework and the
degree of decentralisation. Health districts do not have the authority to carry out their functions effectively. A dysfunctional district system will never be able to effectively carry out programmes assigned to it, and consequently represent an obstacle to improvements in the achievement of key health goals.

A revised model for the district system is urgently required which complies with the following:

Districts should become fully devolved structures subject to the oversight of independent boards;

The district system should receive its budget from a national allocation which can be topped up by provinces using their own revenue sources; and

The funding allocation should take into account population size, levels of social and economic deprivation, and the impact of HIV and AIDS and TB.

Given the present state of health districts, the legislative framework should allow for the incremental implementation of the full district system by defining a range of governance options, from light to full decentralization. The eleven health districts with 50% of the population (see figure 11) could be prioritized for full decentralization within a reasonable period (e.g. three years from promulgation). The remaining districts could adopt one of the other models within the same period until such time as they can adopt a fully devolved structure.

Reforming the institutional framework of the health system is centrally required to ensure that sustainable improvements in the performance of the health system are possible. Although short-term strategies to bolster weakened parts of the system are an immediate need, this should not be done at the expense of a medium- to long-term strategy to overhaul the present dysfunctional relationships within the public system.

Sources: Health Systems Trust district indicators, Department of Health (2007)
HUMAN RESOURCES

OVERVIEW

The South African health system has operated for many years with an unplanned human resource policy framework. The absence of an active policy framework to plan for the human resource needs of the country has resulted in shortages within the public sector and more generally. There are also concerns that the ability to produce new health professionals is becoming compromised due to the weakening of health sciences faculties. This section therefore covers the broad strategic requirement to implement a strategic planning framework for human resources serving the national health system.

MANAGING ENTRANTS AND EXITS

Consideration has to be given to explicitly defining the target health professional staff to population ratios required over time. This should be done centrally.

Based on the target staff ratios, policy needs to focus on strategies to deal with entrants and exits to the active number of health professionals working in the system at any point in time.

Controlling in some measure the entrants to the system involves planning the:

Education and training enrolments levels;

Attracting foreign health professionals.

Controlling in some measure exits from the system involves planning the:

Staff retention strategies, particularly within the public system.

Consideration could also be given to improving the efficiency of the current staff mix, through:

Changes to the scope of practice of key health professionals; and

Making greater strategic use of community health workers (CHWs).

The production of new health professionals will require the implementation of an explicit policy framework which identifies the quantum of new health professional enrollees in higher education and then subsidises them through the use of earmarked allocations provided to the education and service platforms respectively. This framework should replace the existing unfocused
conditional grant arrangements which lack specificity and have virtually no planned impact on training health professionals.

With respect to the public sector, the focus in the medium-term needs to be on attracting health professionals back into the service to recover the unplanned losses experienced over the period 1997/98 to the present.

Consideration should be given to setting a guideline target of around 70,000 to 80,000 professionals, with the focus on public hospitals where the greatest loss of staff has occurred.

INFORMATION

Gaps exist with respect to basic human resource information for the purposes of policy and planning at all levels of the health system. Human resources central to the health system need to be continuously analyzed to assess whether and where critical gaps are emerging.

Information on human resources needs to be systematically collected and evaluated routinely for the country as a whole (both the public and private sector). Exits from the system must also be identified and analyzed in order to isolate strategic concerns. Systems to support this need to be implemented urgently.

COMMUNITY HEALTH WORKERS

Although it has been policy over the past few years to implement a CHW programme, this has not been done effectively. Weaknesses have been identified at the health district level where poor oversight and co-ordination reduce the potential impact of the programme.

Consideration therefore needs to be given to the implementation of a planned and co-ordinated CHW strategy, which incorporates a funding model, and which seeks to explicitly affect the implementation of structures to oversee its efficient administration within all health districts.

CONCLUSIONS

There is evidence of an emerging human resource crisis with respect to health professionals within South Africa. The absence of concrete information to properly assess the position of the country, or to properly understand where and how certain gaps are emerging is worrying. The information gaps can be resolved fairly rapidly
through the implementation of routine monitoring mechanisms and the routine evaluation and publication of this information.

However, narrowing the emerging gaps requires complex strategies aimed at retaining, attracting, and producing health professionals. Without a carefully designed process to organize technical and stakeholder input, it may prove extremely difficult to rapidly resolve emerging crises. It is likely that for the next two years it will be necessary to set up processes to achieve step-wise adjustments in the production and attraction of needed health professionals. If reasonably successful, more routine maintenance strategies could be considered thereafter.
HIV AND AIDS – PREVENTION AND TREATMENT PRIORITIES

OVERVIEW

The HIV and AIDS pandemic is the most serious medium- to long-term health threat to South Africa and the region. Although the burden of disease has expanded hugely over the past ten years, the opportunity to contain the disease going forward is both possible and essential. The need to effectively confront the disease requires that a revitalized effort be considered to deal with both the prevention and treatment aspects of the disease. Strengthening the response framework requires reworked processes to speed up consultation, communication and implementation; and refocused programmes.

PROCESSES

A substantial number of role-players are directly involved in responding to the epidemic. These involve public sector managers, clinicians (both public, non-public, and private), academics, civil society, lawyers, employers, medical schemes, and donor organisations. In order to harness the expertise and capacity of all these role-players it is necessary to implement a process that can guide and prioritise their activities and resources to maximize impacts. For this to work effectively there is a need for both a participative consultation and executive decision-making processes.

Consideration should therefore be given to the establishment of a consultation forum on HIV and AIDS, in accordance with the institutional reform recommendations made earlier. This forum should fall under the Minister of Health and have a full-time professional secretariat and executive support unit. The purpose of this structure would be to rapidly consult with the HIV and AIDS role-players on an ongoing basis, and feed recommendations into policy and plans as rapidly as possible.

PROGRAMME PRIORITIES

COMMUNICATION PRIORITY

To overcome any lack of clarity concerning the nature of the pandemic and its risks, there is a need to prioritise a strategic communication process for immediate implementation.

This communication strategy should directly involve the President and the Minister of Health. A detailed follow-up process should then follow.
PREVENTION PRIORITY

The HIV epidemic experienced by South Africa is generalized and hyper-endemic. The average incidence of HIV in South Africa is 1.2% but heavily concentrated in specific groups – defined in the first instance by age and gender.

About 45% of the approximately 1,450 new infections a day occur in women under 25 years of age and their babies. Almost three fifths (57%) of new infections occur in babies (11.5% of total), 15-24 year old women (31% of total) and 15-24 year old men (15% of total). These groups constitute the priorities for intervention. Given that almost all infections in newborns can be stopped by effective administration of antiretroviral therapy, improving the coverage of PMTCT (prevention of mother-to-child-transmission) must constitute the single biggest priority.

The most effective prevention response at this stage is to focus on the nodes of concentrated incidence of HIV. These are:

*Babies born to HIV positive mothers:* achieve 95% coverage of effective PMTCT:

*Incidence 3.5%; and*

60,000 infections per annum.

*Women aged 15 to 24:*

*Incidence 3.3%;*

160,000 new infections per annum.

*Men aged 15 to 24:*

*Incidence 1.7%*

80,000 new infections per annum.

*Total annual prevention target:*

300,000

TREATMENT PRIORITY

The two main reasons why HIV positive people die from AIDS is that: antiretroviral therapy is not available to all who need it; and treatment is started too late.

*The priorities for antiretroviral treatment must be to expand effective coverage as rapidly as possible and ensure early enough antiretroviral treatment.*

The above would involve expedited antiretroviral and TB treatment:

*Early identification through HIV testing;*
Keeping track of HIV positive people through the health system;

Active management of TB; and

The expeditious treatment of HIV and TB.

CARE AND SUPPORT PRIORITIES

The role of the State in care and support should be to provide an efficient social safety net for disability and child care, and systematic financial support to community-level programmes implemented by non-government organisations.

RAPID RESPONSE TO RESEARCH AND TECHNOLOGICAL BREAKTHROUGHS

Consideration needs to be given to structures that would allow for a rapid institutionalized response to new research findings and technological breakthroughs.

This could be achieved through the establishment of rapid-report task teams to assess feasibility and develop plans for the implementation of breakthrough research and new technologies.

CONCLUSIONS

HIV and AIDS and TB needs to have an elevated priority in the planning and implementation of policy and research. Although treatment for these conditions will require vastly more resources than prevention, serious efforts are not required to reduce the future burden of disease. Although the impact of these efforts will not be felt on the treatment programme for upward of ten years, they must begin now to prevent the health system from being overwhelmed over the next twenty years.
Public spending on health care in South Africa is not substantially out of step with its peers. This suggests, as already noted, that in part poor performance is a function of inefficiency rather than resource constraints. As outlined in earlier sections, much of the improvement in health systems performance needs to come from efficiency gains through fundamental institutional reform. Nevertheless, some improvements need to come from improved levels of funding. Presently government expenditure on health is around 3% of Gross Domestic Product (GDP), a ratio which has declined somewhat over the past fifteen years. This section reviews some of the expected financial threats and opportunities faced by South Africa looking ahead, and makes the case that consideration should be given to incrementally improving the resourcing of the public health system to a level consistent with 5% of GDP.

**EMERGING FUNDING OBLIGATIONS**

**HIV AND AIDS**

Looking ahead the HIV and AIDS pandemic establishes a significant contingent financial liability for the government health programme. The failure to effectively prevent the emergence of the present AIDS burden of disease has created a new financial burden for the health budget over-and-above existing programmes. It is presently estimated that the take-up for anti-retroviral therapy is around 21% of those who are eligible. If the programme were to achieve at least an 80% take-up over the next few years, the cost would rise from roughly R1 billion at present to R11 billion per annum excluding likely changes to the protocol. Were the protocol to be changed to include people with a CD4 count of 350 and lower, and to provide anti-retroviral treatment to HIV positive people with TB, the cost will roughly go up to around R16 billion per annum (a net increase of R15 billion per annum).

Unfortunately there is an existing AIDS burden of disease which will not disappear for many years. However, to mitigate the financial burden of the disease the following strategic priorities are important:

*The prevention programmes must be implemented in a manner that achieves success in reducing the incidence of HIV, with material reductions targeted for the next five years.*

*The input costs for treating AIDS must be minimized through the negotiation of lower prices for medicines and tests and improvements in the efficiency of the service delivery system, through inter-alia the use of community health workers.*
FIGURE 11: FINANCIAL IMPACT OF AIDS TREATMENT TO THE YEAR 2025 (2008 PRICES)

Source: Assumed cost of R500 pm, treatment requirements estimated using the ASSA2003 model

TB TREATMENT

The inefficient treatment of TB has resulted in the emergence of expensive to treat drug resistant TB. As a result the bulk of the budget for treatment goes toward the treatment of small numbers of MDR-TB and XDR-TB, while at the same time treatment targets for ordinary TB remain unmet.

The reasons for poor efficiency in treating normal TB need to be evaluated and removed. The costs of achieving this turnaround will free up resources presently going toward MDR-TB and XDR-TB.

MATERNAL CARE

The very high maternal mortality rates from preventable causes suggest inadequate resourcing in the provision of these services. There is also limited monitoring and evaluation of these services with a view to assessing interventions to improve their functionality and to hold managers accountable for meeting treatment targets.

PREVENTION OF MOTHER TO CHILD TRANSMISSION OF HIV

An opportunity exists to substantially prevent the incidence of HIV amongst newborns. When no antiretrovirals are provided to the mother transmission rates are of the order of 30%. With the provision of antiretrovirals transmission can be brought down to under 1%. The failure to connect mother to the main antiretroviral treatment
programme, also results in preventable early mortality and the orphaning of her children.

The PMTCT programme needs to be upgraded and properly funded to achieve:

Transmission rates of under 1%; and

Protection of the mother through connecting her to the main anti-retroviral programme.

NUTRITION FOR CHILDREN UNDER THE AGE OF THREE

Children living in poverty suffer micronutrient deficiencies during the first three years of life, with a permanent impact on their health status and cognitive development. This occurs even when a child does not go hungry as the diet is often short of key micronutrients.

Improving child nutrition requires programmes that:

Educate the parent,

Provide dietary food supplements in the first three years of a child’s life; and

Require that breast feeding be encouraged.

RE-STAFFING THE PUBLIC HOSPITALS

The staff shortfalls are significant and have grown since 1997/98. The actual needs of the system are as yet undefined due to the absence of a quantified plan by government. However, estimates produced for this report suggest a shortfall of between 70,000 to 80,000. Much of the overall shortfall will be in regional and central hospitals.

Improving the staff complement of hospitals will require an increased annual budget allocation of between R10 to 12 billion, if it assumed that the entire existing shortfall applies to hospital services only.

THE DISTRICT HEALTH SYSTEM

The district health system presently lacks professionally trained managers and administrators. Furthermore, they lack key medical personnel with a public health background as well as professionally trained people able to implement and manage information systems.

Improving the quality of the district system will require the training and hiring of staff capable of managing a complex health service.
In addition, the training and hiring of staff capable of implementing and managing district health information systems will be required.

EMERGENCY MEDICAL SERVICES

Although emergency medical transport services have been improved in recent years, this remains a weak area in the overall health system. Aside from poor co-ordination and oversight of these services, the interaction between public and private arrangements remains a problem. Furthermore, the training of paramedics is not coherently linked to national priorities.

Improving emergency medical services requires an investment in new manpower, vehicles, and control centres. Consideration also needs to be given to the adequate funding of a national call centre for all emergencies. Specific national subsidies are required to underpin the minimum manpower training requirements for the country as a whole.

INFORMATION SYSTEMS

Ongoing investment in health information systems is required to improve policy development, planning, management and oversight. This should include the provision of a subsidy (and bursaries) to higher education institutions to ensure the minimum production of professionals to support the national health information system at all levels of the health system. Aside from the staff production component there is a need to implement and upgrade the information system infrastructure over the next five years.

Improving the national health information system requires a strategy related to both manpower and infrastructure. A strategic plan to materially impact on the production of health information over the next five years should be prioritized.

RE-CAPITALIZING THE PUBLIC HEALTH INFRASTRUCTURE

The estimated replacement value of the public hospital infrastructure is around R110 to R120 billion. Maintaining this infrastructure assuming 5% depreciation, should require an annual per capita allocation of between R110 to R120. Presently the entire facilities budget (including all infrastructure) stands at R118 per capita. However, this level of spending has only existed for around two years, with levels before this at less than 50% of this value. For a period of ten years the allocation ranged between R21 and R61 per capita. For the seven years from 1999/00 to 2004/05 the average per capita expenditure was R51. Assuming a required maintenance budget of R130 for the full system, just over this seven year period a capital backlog of R26 billion would have emerged while the accumulated backlog for the full ten years from 1999/00 to the present would be around R27 billion.
To remove the accumulated backlog in maintenance will need to be dealt with incrementally. However, there is a need to ensure that maintenance budgets are protected and related to the replacement value of the capital stick in place. Consideration should be given to a protected capital allocation based on between 7% to 8% of the replacement value of capital for a sustained period in order to incrementally rebuild the public health infrastructure.

SUMMARY OF EXPENDITURE REQUIREMENTS AND THE FUNDING ENVELOPE

In order to provide a rough indication of the new financial priorities that need to be funded over the next five to ten years, an indicative recurrent cost estimate comes to R34 billion, which is substantially in excess of the existing allocation. Were this expenditure increase to be realized immediately, public health expenditure would rise from 3% to 4.8% of GDP. However, if it is assumed (purely for the purposes of illustration) that this funding requirement grows incrementally over a period of five years (to 2013) and that GDP grows at 3% per annum, the ratio of public health expenditure to GDP drops to 4.2%. If it is assumed that, given the importance of the public health system, that a medium-to long-term funding envelope of 5% for the public health system is reasonable, these priorities could be properly funded.

To increase the fiscal space available to government, while pursuing the same envelope, consideration could be given to expanding the absorption of lower income groups into medical scheme cover. Were membership increases of roughly 7.5 million (see figure 10) for comprehensive cover to be achieved, by 2013 (also, purely for illustrative purposes) around R20 billion per annum in reduced services would be available for re-prioritization toward key public health threats.

Consideration should therefore be given to incrementally increasing the public health budget over the next five years to fund the indicated priorities. Consideration should also be given over the medium-term to moving the overall public health budget to 5% of GDP, while simultaneously exploring methods to improve private medical scheme absorption of at least 7.5 million lower income people.
### TABLE 3: RECURRENT HIGH-LEVEL ESTIMATE OF NEW FINANCIAL COMMITMENTS REQUIRED TO IMPROVE THE FUNCTIONALITY OF THE PUBLIC HEALTH SYSTEM (R’000) (2008 PRICES)

<table>
<thead>
<tr>
<th>Priority area</th>
<th>New expenditure (R’000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• HIV and AIDS Treatment Programme&lt;sup&gt;40&lt;/sup&gt;</td>
<td>10,000,000</td>
</tr>
<tr>
<td>• TB Treatment (general services)&lt;sup&gt;41&lt;/sup&gt;</td>
<td>1,000,000</td>
</tr>
<tr>
<td>• Maternal care&lt;sup&gt;42&lt;/sup&gt;</td>
<td>2,000,000</td>
</tr>
<tr>
<td>• Prevention of Mother to Child Transmission&lt;sup&gt;43&lt;/sup&gt;</td>
<td>1,000,000</td>
</tr>
<tr>
<td>• District Health System (double existing capacity)&lt;sup&gt;44&lt;/sup&gt;</td>
<td>1,500,000</td>
</tr>
<tr>
<td>• Nutrition for children under age of 3&lt;sup&gt;45&lt;/sup&gt;</td>
<td>500,000</td>
</tr>
<tr>
<td>• Staff improvements (focus on hospitals)&lt;sup&gt;46&lt;/sup&gt;</td>
<td>10,000,000</td>
</tr>
<tr>
<td>• Emergency medical services&lt;sup&gt;47&lt;/sup&gt;</td>
<td>1,000,000</td>
</tr>
<tr>
<td>• Information systems&lt;sup&gt;48&lt;/sup&gt;</td>
<td>1,000,000</td>
</tr>
<tr>
<td>• Re-capitalisation&lt;sup&gt;49&lt;/sup&gt;</td>
<td>3,000,000</td>
</tr>
<tr>
<td>• Other priorities (contingency)</td>
<td>3,000,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>34,000,000</strong></td>
</tr>
</tbody>
</table>

### RESOURCE ALLOCATION

Consistent with the assessment of institutional reforms needed, consideration should be given to the centralized allocation of the funding for hospital services, health districts, emergency transport services, capital expenditure, and the training of health professionals. This would ensure that national priorities are properly funded and prioritized in every respect.

<sup>40</sup> This is based on the analysis shown in figure 11, with an assumption that R1 billion is spent at present.

<sup>41</sup> This roughly doubles the budget for general TB services.

<sup>42</sup> This is merely a contingency amount.

<sup>43</sup> This is merely a contingency amount.

<sup>44</sup> The recurrent funding required to double the district administration component of the existing district budget.

<sup>45</sup> This is merely a contingency amount. The true value of the programme should not significantly exceed this value if reference is had to the cost of existing nutrition programmes.

<sup>46</sup> This is based on the assumptions of the shortfall in staff provided in this report (see figure 8).

<sup>47</sup> Assumes roughly a 70% improvement in budget.

<sup>48</sup> It is difficult to estimate the requirement for information systems and a contingency amount is included. The actual requirement could be much higher than this, but is unlikely to be lower.

<sup>49</sup> Based on the difference between present expenditure and the budget required to fund a depreciation rate of 7%. It is assumed that 5% would be sufficient to maintain the existing capital stock.
The implementation of a centralized resource allocation mechanism can be achieved through the ring-fencing of allocations provided to provinces as revenue. This would substitute funding away from the unallocated provincial equitable share (PES) allocation. This entire system can be implemented through the Division of Revenue Act and requires no amendment to the Constitution. It would however require a substantial improvement in the national capacity to determine allocations and to develop and quantify the implications of national policy. Consistent with earlier proposals consideration needs to be given to placing the resource allocation function within a national agency capable of attracting the required skills to effectively manage and quantify the priorities.

CONCLUSIONS

In addition to major institutional changes required to improve health systems efficiency, an increase in public health expenditure is necessary to improve health outcomes. The priority areas evaluated crudely in this section see an increased recurrent budget requirement of around R34 billion, which would still result in expenditure below 5% of GDP. Were policy to focus simultaneously on expanding medical scheme coverage by an additional 7.5 million people, further fiscal space (estimated crudely at around R20 billion per annum in 2013) would be created to reprioritize public health expenditure toward public health goals. Thus, even with the increases in the programmes envisaged, space could exist to significantly expand the public health system over time while prioritizing areas of greatest need. To prevent the additional funds from being wasted through poor prioritization, national priorities should be funded centrally and the capacity to determine these allocations created. Given the requirement to get these allocations right, consideration should be given to placing the resource allocation function within an agency capable of attracting the right skills to ensure the technical aspects are performed effectively.
CONCLUSIONS

The Roadmap process, although limited in what it can achieve, has produced a diagnosis of the strategic challenges facing the South African health system as well as a range of potential policy responses. The strategic policy options are high level and provide a starting point rather than a final definitive position on the way forward.

Although a definitive conclusion is not possible at this point it appears consistent with the evidence that an important contributor to South Africa’s deteriorating health status arises from institutional weaknesses within the public health system. A strategy to re-balance the institutional framework should therefore seek to enhance the performance of the system by centralizing resource allocation decisions and decentralizing key functions, services and health authorities. This approach would seek to invert the present alignment of functions and improve the efficiency and accountability of the system.

The health system is complex with many moving parts, role players, and stakeholders. To effectively marshal the knowledge and institutions within the health system to achieve the best possible executive decisions remains an ongoing challenge for government. To this end consideration should be given to the establishment of structured consultation processes for inter alia: HIV and AIDS and TB; non-communicable diseases; human resources; maternal and child health; quality assurance; health information systems; and private health care.

The challenges associated with HIV and AIDS requires a strengthened response framework which needs to include the capability to react more rapidly to changing circumstances. Included in immediate actions is the need to: prioritise a strategic communication process, which includes the President and Minister of Health; prioritise prevention strategies for babies born to HIV positive mothers, young girls and boys to the age of 24; a more effective expanded programme for AIDS and TB which also improves the connectivity between the various related health programmes; and an expanded programme of care and support.

Human resources are pivotal to the successful functioning of the health system. However, very little is known about the numbers in service (public and private sector); losses to the system; and emerging gaps and risks. There is a critical need to establish a formal analytical framework to support human resource policy. This policy (when developed) also needs to underpin production targets linked to earmarked subsidies to the teaching and service platforms used for teaching.

What can be tracked at present is the loss of public sector staff from 1997/98 which suggests a current staff shortfall compared to historical levels of around 70,000 to 80,000. Given substantial staff improvements to the district system over the past four years, much of the shortage is concentrated in the public hospital system. Public hospitals therefore need to be seen as a medium-term priority. The effective implementation of the existing CHW strategy also needs to be considered as a medium-term priority.

An indicative estimate of the new financial obligations implied by the various programmes identified in this report amounts to around R34 billion in 2008 prices. Were this to be implemented immediately it would move the present public health budget as a percentage of GDP from 3.0% to 4.7%. Were this to be realized by 2013, the total public health budget would amount to 4.3% of GDP. Given the elevated priority allocated by government to the development of the public health system, consideration...
could be given to expanding the budget envelope on the public health system over time to 5% of GDP. The indicative budget increases for the proposed priorities would therefore fall within this envelope. It should however be recognized that such increases will take time to materialize, and would need to be implemented on an incremental basis to be feasible.
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