

CHAPTER TEN

KEY POINTS

Promoting health

Greater intersectoral and inter-ministerial collaboration is central to the Commission's proposals to promote health in South Africa.

Health is not just a medical issue. The social determinants of health need to be addressed, including promoting healthy behaviours and lifestyles.

A major goal is to reduce the disease burden to manageable levels.

Human capacity is key. Managers, doctors, nurses and community health workers need to be appropriately trained and managed, produced in adequate numbers, and deployed where they are most needed.

The national health system as a whole needs to be strengthened by improving governance and eliminating infrastructure backlogs.

A national health insurance system needs to be implemented in phases, complemented by a reduction in the relative cost of private medical care and supported by better human capacity and systems in the public health sector.

INTRODUCTION

South Africa's health challenges are more than medical. Behaviour and lifestyle also contribute to ill-health. To become a healthy nation, South Africans need to make informed decisions about what they eat, whether or not they consume alcohol, and their sexual behaviour, among other factors.

People need information and incentives to change their behaviour and lifestyles. Leaders and other influential people can provide role models. All South Africans need to be encouraged to buy, grow and eat healthy foods, and to do more exercise.

Promoting health and wellness is critical to preventing and managing lifestyle diseases, particularly the major non-communicable diseases among the poor, such as heart disease, high blood cholesterol and diabetes. These diseases are likely to be a major threat over the next 20 to 30 years.

There are other non-behavioural factors that affect well-being. The environment in which people are born, grow up, live and work can affect their health negatively. This includes exposure to polluted environments, inadequate houses and poor sanitation. How well the health system functions can determine the success in the treatment of disorders, and the longevity and quality of life of the population.

The Ministry of Health is embarking on massive reform, covering health systems, personnel and financing, among others. The proposals presented here are in line with many of the strategies that are under consideration in the Ministry of Health. In the view of the National Planning Commission, South Africa is on the right path, after a period of some difficulty.

The Commission invites all South Africans to think

differently about their health and to work with government and each other to create a healthy nation. Health stakeholders are called on to collaborate with each other and with government, to be open to new ways of doing things, and to put patients first.

This chapter:

- Sets out the 2030 vision for health
- Discusses current challenges
- Puts forward a set of goals, indicators and actions
- Puts forward a set of priorities.

VISION 2030

A health system that works for everyone and produces positive health outcomes is not out of reach. It is possible to:

- Raise the life expectancy of South Africans to at least 70 years
- Ensure that the generation of under-20s is largely free of HIV
- Significantly reduce the burden of disease
- Achieve an infant mortality rate of less than 20 deaths per thousand live births, including an under-5 mortality rate of less than 30 per thousand.

In countries that have succeeded in reforming their health systems, committed leadership in all layers of the health system has been key.

CURRENT CHALLENGES

The South African health system is underpinned by the principles of primary health care and the district health system.

Primary health care emphasises globally endorsed values, such as universal access, equity, participation and an integrated approach. Critical elements of primary health care include prevention and the use of appropriate technology. Other components

include better access to and use of first-contact care, a patient-focused (rather than a disease-focused) approach, a long-term perspective, comprehensive and timely services, and home-based care when necessary.

The district health system embodies a decentralised, area-based, people-centred approach to health care. The World Health

Organisation identifies six important elements of the system:

- Service delivery
- The health workforce
- Health information
- Medical products, vaccines and technologies
- Sound health financing
- Good leadership and governance.

Each of these is important for achieving equity and quality, responsiveness, social cohesion, financial risk protection and better efficiency in health care.

Demographics and health trends

The health challenges facing South Africa are well documented. The country faces a quadruple burden of disease:

- HIV/AIDS and related diseases such as tuberculosis (TB), and sexually transmitted infections (STI)
- Maternal and child morbidity and mortality
- Non-communicable diseases (mainly related to lifestyle)
- Violence, injuries and trauma.

HIV/AIDS has been a leading cause of death, followed by interpersonal violence, TB, road traffic injuries and diarrhoeal diseases. The leading risk factors are unsafe sex, followed by interpersonal violence, alcohol abuse, tobacco smoking and excess body-weight.

Death notifications doubled between 1998 and 2008 to 700 000 per year. The increase is mostly in deaths of infants (children up to four years old) and young women (between 30 and 34 years old), which trebled to nearly 60 000 per year, mostly due

to HIV. HIV has also contributed to the mortality of men, particularly between the ages of 35 and 39. There has also been a sustained increase in deaths of young men due to injury. Communicable diseases such as TB escalated, imitating the HIV epidemic: up to six times more young women are affected and up to four times more young men. There was a similar rise in non-communicable disorders, such as cardiovascular disease, and predisposing factors such as obesity, ypercholesterolemia (abnormally high levels of blood cholesterol) and diabetes mellitus.

The health system

The performance of South Africa's health system since 1994 has been poor, despite good policy and relatively high spending as a proportion of GDP. Services are fragmented between the public and private sectors. The public sector serves 83 percent (41.7 million) of the population and the private sector 17 percent (8.3 million). Imbalances in spending between the public and private sectors have skewed the distribution of services, which has been detrimental to both sectors and has led to increased costs. The inability to get primary health care and the district health system to function effectively has contributed significantly to the failure of the health system. The expressed needs of communities are not always valued and respected. The management of the health system is centralised and top-down. Poor authority, feeble accountability, the marginalisation of clinicians, and low staff morale are characteristics of the health system. Centralised control has not worked because health personnel lack discipline, perform inappropriate functions, are not held accountable, do not adhere to policy, and are inadequately overseen. In addition, the institutional links between the different levels of services are weak.

The centralisation of hospital budgets and key

functions such as supply chain management at provincial level has been detrimental. The delivery of health services and care for patients takes place at health facilities yet managers lack the powers to manage effectively.

Health funding is also a victim of

competing

priorities for limited provincial budgets. The share of the budget going to health has been erratic in all provinces for some time. In 2011/12 Mpumalanga allocated the smallest share (25 percent) of the provincial budget to health and the Western Cape allocated the largest share (36 percent). Health spending per person also varies from one province to another. The Northern Cape spent the least amount person (R905) compared to highest spending per person in the North West province (R5700). This pattern of spending per person has persisted for well over a decade. This anomally needs to be corrected.

Progressive policies were formulated in the first years of the democratic dispensation and the public health system was transformed into an integrated, comprehensive national health system. However, inconsistent management and inadequate capacity has meant that implementation and health outcomes have fallen short of expectations. There was a misguided attempt to change everything at once, when many aspects of the system were not faulty.

Some crucial issues have never been satisfactorily addressed, such as the substantial human resources crisis facing the health sector and massive unemployment in the country.

Social determinants and ecology

The weaknesses in South Africa's health systems are exacerbated by the quadruple burden of

disease. Health and health services have been shaped by multiple epidemics, as well as powerful historical and social forces, such as vast income inequalities, p o v e r t y,

unemployment, racial and gender discrimination, the migrant labour system, the

destruction of family life and extreme violence.

It is internationally recognised that societal risk conditions are more important than individual ones in the spread of a disease. The report by the World Health Organisation Commission on the Social Determinants of Health, made three major recommendations that are especially relevant for South Africa:

- Improve the conditions of daily life
- Tackle the inequitable distribution of power, money, and resources
- Measure the problem, evaluate actions, expand the knowledge base, develop a trained workforce in the social determinants of health, and raise public awareness.

HEALTH GOALS, INDICATORS AND ACTION POINTS TOWARDS THE 2030 VISION

This section sets out long-term health goals for South Africa, and provides indicators and action points. There are nine goals: the first five relate to the wellbeing of the population and the other four describe the required systems.

GOAL 1: Average male and female life expectancy at birth increases to 70 years

These strategies and actions are in line with the National Strategic Plan on HIV, STIs and TB 2012 to 2016:

- Early initiation of antiretroviral (ARV) therapy for all eligible people living with HIV
- Initiation of all TB patients on lifelong ARV therapy, irrespective of their CD4 count
- A package of treatment services for HIV, STIs and TB for key populations
- Promotion of the consistent use of condoms
- Routine availability of microbicide to all women 15 years and older as a prevention strategy
- Universal availability to pre-exposure prophylaxis with ARV therapy
- Effective implementation of the prevention of mother-to-child transmission (PMCT) programme.

These actions should reduce mother-to-child HIV transmission rates to zero, and new HIV infections by half among women between 15 and 24 years old.

GOAL 2: Progressively improve TB prevention and cure

Methods of treating TB are well known and have been practiced for over 50 years. The indicators of effective implementation are:

- TB rates among adults and children compared with global targets
- Successful treatment completion

- Progressive decline in the latent infection rate among school-age children
- Decrease in TB contact indices
- Number of latently infected people receiving six months isoniazid treatment (first-line anti-TB medication in prevention and treatment).

GOAL 3: Reduce maternal, infant and child mortality

• Reduce under-five child mortality from 56 to below 30 per 1 000 live births.

Approximately 97 percent of pregnant women attend at least one antenatal clinic and 89 percent of children are fully immunised at one year old. The rate of hospital births is also high, indicating a high rate of interaction of pregnant women and young children with the health system. Improving the quality of antenatal and postnatal care, and using health information to follow up on patients can contribute to reducing unnecessary deaths.

GOAL 4: Significantly reduce prevalence of non-communicable chronic diseases

- Cardiovascular diseases
- Diabetes
- Cancer
- Chronic respiratory diseases.

Diet-related non-communicable ailments such as obesity, diabetes and cardiovascular disease account for a large proportion of South Africa's disease burden and may rise further, especially among poor African women. Risk factors include tobacco smoking, physical inactivity, raised blood pressure, raised blood glucose, obesity, and raised cholesterol. There has been an encouraging decline in self-reported tobacco smoking by over 40 percent since 1995, which is expected to continue.

Studies have shown that increases in non-



communicable diseases are linked to certain changes in diet. There have been rapid and marked changes in what the black population in South Africa eats, from a diet based predominantly on unrefined maize with vegetables and occasional animal protein to refined and processed foods with high concentrations of sugar and salt.

The state can raise awareness about the consequences of diet choices and use a regulatory mechanism to monitor progress. But people themselves must make the choices.

GOAL 5: Reduce injury, accidents and violence by 50 percent from 2010 levels

- Introduce measures to reduce motor vehicle accidents
- Violent crimes
- Interpersonal violence
- Substance abuse.

Contributing factors include unroadworthy vehicles, irresponsible driver behaviour, alcohol and substance abuse, gender-based violence, access to firearms, and weak law enforcement.

Here too, the state is responsible for raising awareness and enforcing the law. But people themselves must act more responsibly.

GOAL 6: Complete health systems reforms

- Integrate the different parts of the health system.
- Develop an information system for managing diseases.
- Separate policy-making from oversight and operations.
- Decentralise authority and devolve administration to the lowest levels.
- Rationalise clinical processes and systematise the use of data, incorporating community health, prevention and environmental concerns.

 Address infrastructure backlogs, including making more use of information communications technology (ICT).

GOAL 7: Primary healthcare teams

provide care to families and communities

- Ensure that primary health care teams are established throughout the country with the required number of doctors, specialists, physicians and nurses.
- Each household must have access to a welltrained community health worker.
- Schools must receive health education provided by teachers and primary health care teams.
- Primary health care teams must have adequate resources for the services they need to deliver.

GOAL 8: Universal health care coverage

- Everyone must have access to an equal standard of care, regardless of their income.
- A common fund should enable equitable access to health care, regardless of what people can afford or how frequently they need to use a service.

GOAL 9: Fill posts with skilled, committed and competent individuals

Increase the capacity to train health professionals.

- Train more health professionals to meet the requirements of the re-invigorated primary health care system.
- Link the training of health professionals to future diseases, especially different categories of non-communicable diseases.
- Follow the lead of the Municipal Systems Act
- of 2000 (as amended) and set procedures and competency criteria for appointing hospital managers.
- Set clear criteria for the removal of underperforming hospital managers.

There are critical shortages of health professionals in a number occupational categories. More health professionals need to be trained and funding needs to allocated to create more posts in the public health sector. Between 2002 and 2010, 11 700 doctors graduated from South African medical schools and only 4 403 were employed in the public sector. In addition, the distribution of doctors between urban and rural areas is inequitable. The Department of Health has developed a human resources strategy which estimates gaps and sets targets to ensure that South Africa has adequate health personnel.

PRIORITIES TO ACHIEVE THE GOALS OF THE 2030 VISION

There are no quick fixes for achieving the goals set out above. Each goal will require a range of interventions. Below we set out nine priorities that highlight the key interventions needed to achieve a more effective health system.

PRIORITY I: Address the social determinants that affect health and disease¹

Implement a comprehensive approach to early life

Existing child survival programmes should be expanded and interventions aimed at social/emotional and language/cognitive development of a child introduced earlier. Extended breastfeeding is desirable for women, but for many it is not possible, for example, in instances where women need to go back to work. What is more practical for most mothers is to exclusively breastfeed for up to six months, and then to wean the child using a cup and spoon to provide additional milk. This must be encouraged.

Collaborate across sectors

The linkages between policies on human settlements, urban planning and urban design,

transport, basic services, education, energy, trade, agriculture and food security, rural development, social protection, and neighbourhood policing should be fully assessed and understood. Their design should take into account their impact on health.

The health sector should engage with partners and other departments to ensure that the negative impact of other policies on health outcomes is understood and mitigated, and promote policies that result in positive health outcomes.

Health is everyone's responsibility, including city planning officials. Many functions of a city government, like providing pedestrian walks, cycling lanes, open parks and street-lighting, can have a positive effect on physical activity which is essential for health outcomes.

Poverty is a significant determiner of health and needs to be addressed. The Department of Health must collaborate with departments whose mandate has a direct impact on alleviating poverty.

Promote healthy diets and physical activity The best place to instil changes in lifestyles and behaviour is at school:

- Physical education should be compulsory in all schools.
- Every school in South Africa should employ a qualified physical education teacher.
- Schools should have access to adequate facilities to practice school sport and physical education.
- All schools should be supported to participate in organised sports at local, district, provincial and national levels.
- School health promoting teams should be established in each district and should visit schools regularly.
- A culture of wellness must also be established



in communities and at work.

- Every ward should have adequate facilities for basic exercise and sporting activities.
- There should be incentives for employers to provide opportunities for employees to exercise and have access to information about healthy eating.

South Africans need to be more physically active as part of their culture. Every month there should be a day dedicated to physical activity where everyone is encouraged to take part in a physical activity. Such a day should be widely publicised in the media. Celebrities, government, business, sportspeople and other leaders should promote and support physical activity to stimulate a healthy culture. But the conditions for a culture of physical activity also need to be taken care of. For example, authorities must ensure that the design of cities, suburban areas and rural villages encourages people to run, walk and cycle.

PRIORITY 2: Strengthen the health system

A number of actions across different levels are needed to strengthen the health system. They include:

- Establishing a coherent and vision-based
- executive decision-making process.

• Promoting quality, including measuring and benchmarking actual performance against standards for quality.

• Defining an appropriately specialised, more accountable operational management model for health service delivery, including revised roles and

responsibilities for the national department, provinces, districts and public hospitals. This should also cover governance and capacity requirements.

• Bringing in additional capacity and expertise to strengthen a results-based health system, particularly at the district level. This should include revised legislation to make it easier to recruit foreign skills, partnerships between the private and public sector, and deployment and training for district health management teams.

• Implementing a national health information system to ensure that all parts of the system have the required information to effectively achieve their responsibilities.

• Establishing a human resource strategy with national norms and standards for staffing, linked to a package of care.

• Developing an implementation strategy and partnerships to leverage funding, increase health sector efficiencies and accelerate the implementation of the national strategic plan²

Leadership and management

The health system requires competent leaders and managers at all levels - from clinic to tertiary hospital. From a governance perspective, competent leaders are required in all structures from district to national level. Anyone who does not meet the competency requirements for a job should be replaced. People who lead institutions must have the required leadership capability and high-level technical competence in a clinical discipline.



To improve services, roles and responsibilities for all public health care facilities need revising. National, provincial and district organisational structures should also be reviewed to better support the focus on primary health care.

To provide overall guidance, technical capacity at national and provincial levels should be strengthened. Policies must be effectively implemented, monitored and assessed. Active engagement in communities is required. And the social and economic barriers to achieving good health must be addressed.

Functional competence and commitment to quality service need to be a priority. Communication and coordination mechanisms should be improved within departmental spheres, across clusters and with private partners to prevent silo funding and operations.

Accountability to users

Governance and management frameworks, from national to local levels, need to be effective, with the emphasis on accountability to users/communities. Centralised guidance, technical support and monitoring should be aligned with decentralised, devolved responsibility and decision-making. Greater attention should be given to collaboration within and between national, provincial and district or local strategies and plans. Appropriate delegations can consolidate the responsibilities of chief executive officers and district managers.

Additional capacity and expertise

The focus of training and mentorship should be on rolling out best practice. To strengthen a resultsbased health system, particularly at the district level, partnerships with the private and non-profit sectors need to be boosted. Trainers and mentors should be used to improve capacity in district health management, clinics, hospitals, and communitybased outreach primary health care.

Quality control

An important reform is the proposed Office of Health Standards Compliance (OHSC) to promote quality by measuring, benchmarking and accrediting actual performance against standards for quality.

Infrastructure and equipment in health facilities are in a desperate state. Health personnel are unevenly distributed. Remote facilities in rural areas face dire shortages. Facilities in major urban centres have more personnel, but are under severe strain due to growing urban populations. They often service populations from far beyond their catchment areas and in some instances from beyond national borders.

The OHSC will be responsible for ensuring that standards are met in every sphere and at every level. Specific focus will be on achieving common basic standards in the public and private sectors.

The OHSC will perform functions which include: inspecting and certifying health establishments that comply with prescribed norms and standards, withdrawing certification, investigating complaints relating to the national health system, monitoring indicators of risk as an early warning system relating to serious breaches of norms and standards and reporting any breaches to the Minister without delay, identifying areas and making recommendations for intervention by a national or provincial department of health.³

PRIORITY 3: Improve health information systems

Several actions are needed for synergy between national, district, facility and community health information systems:

• Prioritise the development and management of effective data systems. Credible data is



necessary for decision-making and regular system-wide monitoring.

- Integrate the national health information system with the provincial, district, facility and community-based information systems. The national health information system should link to secure, online, electronic patient records and other databases, such as for financial, pharmacy, laboratory and supply-chain management data. It should also link with other government, private sector and non-profit databases.
- Establish national standards for integrating health information systems. Integrating data between different software and financial systems is difficult.
- Undertake regular, independent, data quality audits, possibly by the OHSC.
- Develop human resources for health information. Replace existing ad hoc training with ongoing training.
- Strengthen the use of information. Mobile phones (m-health systems) can improve community-based data collection by professional teams, including community health workers, and make reliable data instantly available. At facility level, the district health information system software should be flexible to allow data to be added according to local needs and to track and monitor local priorities.
- Expand data reporting. Address the increasing demands on health workers for data through a structured approach, using sentinel sites. Complementary use of routine data and regular inexpensive annual facility surveys to update basic information data on staff, infrastructure, equipment, maintenance, and other information that does not change often. A national task team should discuss, revise and approve the national health information system every two years, encouraging districts and provinces to take part and make

submissions. Two areas requiring urgent incorporation are reports on human resources and finances.

- Focus access to digital information on webbased and mobile data entry and retrieval, linked to the existing district health information system, which should be continuously and incrementally modernised.
- Invest in improving data quality. This depends on the continuing allocation of full-time national and provincial staff, as well as on the commitment of district information officers and supervisors.

PRIORITY 4: Prevent and reduce the disease burden and promote health

It is important to provide comprehensive care, particularly quality primary health care and community outreach. But an integrated focus is needed on three main interventions to reduce the major disease burden.

- Prevent and control epidemic burdens through deterring and treating HIV/AIDS, new epidemics and alcohol abuse.
- Improve the allocation of resources and the availability of health personnel in the public sector.
- Improve health systems management by improving the quality of care, operational efficiency, the devolution of authority, health worker morale and leadership and innovation.

PRIORITY 5: Financing universal healthcare coverage

In 2005, the World Health Assembly passed a resolution on sustainable health financing, universal coverage and social health insurance. The resolution noted a wide mix of financing mechanisms across countries, but asked countries to commit to progressively extending a prepayment system. This was aimed at increasing the security of services, protecting them against financial

risk, preventing catastrophic health expenditure and moving towards universal systems.

Types of health system

South Africa's proposals for a national health insurance (NHI) system represent a profound break with the past. The changes being made now may set the foundations for a new health system for the next 50 years.

South Africa has a transitional or pluralist health system, consisting of a tax-funded health system for the majority, and medical schemes for a relatively small proportion of the population (17 percent, 8.3 million beneficiaries).⁴ However, given the large inequities in income, spending in the private sector amounts to about half of total health spending. This spending attracts scarce skills away from the public sector: a large proportion of South Africa's specialists, pharmacists, dentists, optometrists and physiotherapists work in the private sector. South Africa's level of public health spending (4.1 percent of GDP) is fairly average in global terms, but the country's burden of disease, including the high level of HIV/AIDS,⁵ creates additional costs estimated at around 0.7 percent of GDP.⁶

It is unusual for middle-income countries to spend more than 6 percent of GDP on health services. (Countries with higher income, such as the United Kingdom, spend about 8 percent of GDP.) As countries become more developed and richer, their health systems and financing systems typically move away from transitional systems towards more universal systems, in which a large proportion of health funding is public.

In advanced countries, there are three main types of health system:

 National health service: Services are predominantly tax-funded and delivery is mainly through the public sector (United Kingdom, Spain and Sweden).

- National health insurance: Financing is predominantly public, but delivery is typically by a mix of public and private providers. There is a range of sub-options here, but one of the main differences is between single-payer models (Australia and Canada) and multi-payer models (Holland and Germany), which typically emerge and build on occupational social health insurance scheme arrangements.
- Private health insurance: The United States model of private health insurance is generally considered one of the most expensive and inefficient, and is being reviewed under the Obama health reforms.

When social insurance systems reach universal coverage, the differences between a national health service and national health insurance may become blurred. In South Africa, the term national health insurance may be open to misinterpretation. South Africa's NHI system will be predominantly based on public sector delivery at first, and mainly tax-funded (strong elements of the national health service).

Evolution towards NHI

NHI is a common endpoint for health financing reforms across the world. Over 100 countries either have or are moving towards NHI. In many countries, NHI has evolved over decades through the progressive elaboration of social health insurance. As economies strengthen and a growing proportion of the population is employed in the formal sector, a relatively low percentage of the remaining uninsured people are subsidised to bring the entire population into the insurance system. South Africa is working towards this objective of universal coverage, but the approach has to be tailored to the South African context:

 The progressive inclusion of private providers into the publicly funded system is likely to be much more gradual given their substantially higher costs. The Green Paper on NHI



suggests a transition of 14 to 15 years. In the early years the focus will be on strengthening public health services, like a national health service-type system.

 NHI in South Africa will involve substantial cross-subsidisation in the early decades due to the high levels of unemployment and income inequality.

South African health financing numbers South Africa will spend about 8.7 percent of GDP on health services in 2011/12 (R255 billion), of which about 4.2 percent (R122 billion) will be in the public sector, 4.3 percent through private financing streams (R126 billion) and 0.2 percent through donors. The largest public stream is through provincial departments of health (3.8 percent of GDP) and the largest private stream is through medical schemes (3.6 percent of GDP).

In 2007, South Africa's public spending on health services was close to the global average (3.5 percent of GDP) for upper-middle-income countries. High-income countries spent on average 6.9 percent. However, government health expenditure as a percentage of total expenditure in South Africa (41.4 percent) was significantly below the average (55.2 percent for upper-middleincome countries and 61.3 percent for highincome countries), meaning that health spending in South Africa is more unequal than in most other middle-income countries.

Government spends about R922 per month per family of four on health services, which is roughly 14.7 percent of government spending (excluding interest costs). A similar family covered by a medical scheme spends between four and five times as

Rand million	07/08	08/09	09/10	10/11	11/12	12/13	13/14	Annual real % change 07/08 -13/14
Public sector								
National Department of Health								
Care	1,210	1,436	1,645	1,736	1,784	1,864	1,961	2.2
Provincial departments of health	62,582	75,120	88,593	98,066	110,014	119,003	126,831	6.1
Defence	1,878	2,177	2,483	2,770	2,961	3,201	3,377	4.0
Correctional services	261	282	300	318	339	356	374	0.1
Local government (own revenue)	1,625	1,793	1,829	1,865	1,977	2,096	2,221	9.4
Workmens Compensation	1,287	1,415	1,529	1,651	1,718	1,804	1,894	0.6
Road Accident Fund	764	797	740	860	980	1,029	1,080	-0.1
Education	1,833	2,134	2,350	2,503	2,653	2,812	2,981	2.2
Total public sector health	71,439	85,154	99,468	109,769	122,427	132,165	140,721	5.6
Private sector								
Medical schemes	65,468	74,089	84,863	96,482	104,008	112,120	120,866	4.4
Out of pocket	14,694	15,429	16,200	17,172	18,202	19,294	20,452	-0.3
Medical insurance	2,179	2,452	2,660	2,870	3,094	3,336	3,596	2.5
Employer private	1,041	1,172	1,271	1,372	1,479	1,594	1,718	2.5
Total private sector health	83,383	93,141	104,994	117,896	126,783	136,344	146,632	3.6
Donors or NGOs	3,835	5,212	6,319	5,787	5,308	5,574	5,852	1.2
Total	158,657	183,507	210,781	233,452	254,518	274,083	293,205	4.4
Total as % of GDP	7.6	7.9	8.6	8.8	8.7	8.6	8.3	
Public as % of GDP	3.4	3.7	4.1	4.1	4.2	4.0	4.0	
Public as % of total government expenditure (non-interest)	13.9	14.0	13.8	14.1	14.7	14.7	14.6	
Private financing as % of total	52.6	50.8	49.8	50.5	49.8	49.7	50.0	
Public sector real rand per capita 10/11 prices	2,131	2,300	2,512	2,635	2,766	2,812	2,816	4.8
Public per family of four per month real 10/11 prices	710	767	837	878	922	937	939	4.8

FIG 10.1. HEALTH EXPENDITURE IN SA PUBLIC AND PRIVATE SECTORS

Source: National Treasury Budget Review, various years

Country	GDP per capita (current US\$)	Gov health expenditure as % of GDP		Per capita gov health expenditure (PPP int \$)		Total health expenditure as a % of GDP		Gov health expenditure as % of total health expenditure		Life- expectancy
	2007	2000	2007	2000	2007	2000	2007	2000	2007	2008
Chile	9,877	3.4	3.6	320	507	6.6	6.2	52.1	58.7	79
Mexico	9,741	2.4	2.7	236	372	5.1	5.9	46.6	45.4	75
Russia	9,146	3.2	3.5	247	512	5.4	5.4	59.9	64.2	68
Turkey	8,865	3.1	3.5	272	467	4.9	5.0	62.9	69.0	72
Venezuela	8,252	2.4	2.7	199	324	5.7	5.8	41.5	46.5	74
Uruguay	7,206	6.1	5.9	500	678	11.2	8.0	54.6	74.0	76
Brazil	7,185	2.9	3.5	202	348	7.2	8.4	40.0	41.6	72
Malaysia	7,028	1.7	2.0	159	268	3.2	4.4	52.4	44.4	74
Argentina	6,604	5.0	5.1	452	671	9.0	10.0	55.5	50.8	75
Botswana	6,545	2.7	4.3	218	568	4.4	5.7	61.0	74.6	54
South Africa	5,933	3.4	3.6	223	340	8.5	8.6	40.5	41.4	51
Costa Rica	5,891	5.0	5.9	360	656	6.5	8.1	76.8	72.9	79
Namibia	4,216	4.2	3.2	174	196	6.1	7.6	68.9	42.1	61
Peru	3,771	2.8	2.5	134	191	4.7	4.3	58.7	58.4	73
Thailand	3,689	1.9	2.7	89	209	3.4	3.7	56.1	73.2	69
China	2,651	1.8	1.9	42	104	4.6	4.3	38.7	44.7	73
Morocco	2,373	2.0	2.3	32	68	4.2	5.0	46.6	45.4	71
Nigeria	1,123	1.5	1.7	20	33	4.6	6.6	33.5	25.3	48
India	1,096	1.1	1.1	16	29	4.4	4.1	24.5	26.2	64
Vietnam	804	1.6	2.8	23	72	5.4	7.1	30.1	39.3	74
Low income		1.8	2.2	14	28	4.7	5.3	37.6	41.9	
Lower middle- income		1.6	1.8	35	76	4.4	4.3	37.0	42.4	
Upper middle- income		3.2	3.5	243	419	6.2	6.4	52.0	55.2	
High income		6.1	6.9	1,631	2,492	10.2	11.2	59.4	61.3	

Source: World Health Organisation, 2010⁷

much. South Africa has not quite met the Abuja declaration health spending target of 15 percent of government spending.

Components of a health financing system The costs of NHI depend on the type of health financing system, for example, the nature and type of benefits, the extent to which private providers (private hospitals) are used, the nature of reimbursement mechanisms, how much purchasing is active or passive, the degree of genuine competition, the relative power of purchasers and providers, usage levels of services and how successfully demand is managed.

REVENUE COLLECTION

Sources of funds: households, businesses, government, donors.

Types of revenue stream:

- Tax direct/indirect, personal income tax, value added tax, borrowing
- Social insurance, NHI
- Private insurance, medical schemes
- User fees out of pocket
- Community financing
- Donations/grants.

Types of collecting agency: government, parastatal, private.

POOLING

Risk pools:

- Coverage and composition of risk pools and degree of fragmentation
- Number and nature of purchasing authorities.

Resource allocation:

- Degree to which needs-based (risk equalised)
- Needs-based resource allocation formulae (e.g. risk-adjusted capitation).

PURCHASING

- Transfer of pooled funds to providers
- Active vs. passive purchasing, contracting, information systems
- Benefit package
- Budgeting, allocative efficiency
- Payment mechanisms.

The Green Paper on NHI estimates that public health spending will increase from R100 to R110 billion at baseline to R255 billion in real terms by 2025 (R574 billion in nominal terms). As a percentage of GDP, this is an increase from about 4.2 percent to 6.2 percent. However, the actual costs will vary depending on how the NHI is implemented and wider health system issues, such as increasing the supply of doctors.



FIG 10.3. GREEN PAPER COSTS OF NHI

R million	Real		Nominal							
	Baseline	Baseline				Baseline	Baseline			
	narrow*	broad	NHI	Gap1	Gap 2	narrow*	broad	NHI	Gap1	Gap 2
10/11	99 802	109 769			99 802	109 769				
11/12	106 171	116 265			111 798	122 427				
12/13	109 006	119 196	125 359	16 353	6 163	120 867	132 165	140 279	19 412	8 114
13/14	110 099	120 295	134 763	24 664	14 467	128 793	140 721	159 523	30 731	18 803
2,014	111 199	121 498	144 408	33 209	22 910	136 520	149 164	180 826	44 305	31 662
2,015	112 311	122 713	156 196	43 885	33 483	144 711	158 114	203 993	59 282	45 880
2,016	113 435	123 940	166 726	53 291	42 785	153 394	167 601	229 654	76 260	62 053
2,017	114 569	125 180	177 666	63 097	52 486	162 598	177 657	258 165	95 567	80 508
2,018	115 715	126 432	189 083	73 368	62 651	172 353	188 316	289 932	117 578	101 616
2,019	116 872	127 696	200 966	84 095	73 270	182 695	199 615	325 278	142 583	125 663
2,020	118 040	128 973	213 636	95 596	84 663	193 656	211 592	365 124	171 468	153 532
2,021	119 221	130 263	227 097	107 876	96 834	205 276	224 287	409 974	204 698	185 687
2,022	120 413	131 565	236 001	115 588	104 436	217 592	237 745	449 847	232 255	212 103
2,023	121 617	132 881	245 284	123 667	112 403	230 648	252 009	493 773	263 125	241 764
2,024	122 833	134 210	254 987	132 153	120 777	244 487	267 130	542 236	297 750	275 107
2,025	124 062	135 552	255 815	131 754	120 264	259 156	283 158	574 362	315 206	291 204

 * Narrow refers to national provincial Departments of Health Broad includes all other health-related services in other departments and entities

The financing of a health care system does not depend solely on its cost projections. It is subject to many other factors, such as the relative prioritisation of other sectors (education, income support, infrastructure, job creation), the overall fiscal stance of the country, its economy, the ability of the health sector to convincingly show value for money and political choices.

Health systems must be designed for long-term sustainability. Some countries provide inadequate levels of funding for health services, despite very high levels of maternal and child mortality. At the other end of the spectrum, poorly conceived health systems can bankrupt companies and governments. Cost spirals in health systems are easily set off and can be very difficult to control.

Cost controls

Health systems require many mechanisms to improve their efficiency and control their costs. For example, primary care gate-keeping; demand management strategies such as appropriate self care and user fees; rationing, diagnostic and therapeutic protocols; preferred providers; managed care; and

Source: Green Paper on National Health Insurance

reimbursement strategies (capitation or global budgets instead of fee-for-service). The 2010 *World Health Report*^{*g*} estimates that between 20 percent and 40 percent of health spending globally is wasted through inefficiency.

Financing mechanisms

Some common financing mechanisms for health care internationally include:

- Tax direct/indirect, personal income tax, value added tax, borrowing
- Social insurance, NHI often via proportional payroll contributions/taxes
- Private insurance; medical schemes
- User fees out-of-pocket payments
- Community financing
- Donations/grants.

Typical criteria used for assessing financing mechanisms are: feasibility, effectiveness, efficiency, equity, sustainability, structuring of contributions (which can be more progressive or regressive depending on the model used), extent of coverage, and fiscal decentralisation versus centralisation. **O** General tax revenue is a source of financing for health care in many countries, particularly those with advanced national health service systems (the United Kingdom, Sweden, Spain and Italy). Types of taxes that underlie general tax income include personal income tax, value added tax and company tax. Taxes on alcohol and tobacco also contribute to the general revenue pool.

General taxation tends to be effective and equitable. In South Africa, the South African Revenue Service is a competent national revenue authority. Personal income tax is a particularly progressive form of raising revenue: the level of income determines the amount of the tax, and the poorest are not taxed. It is more progressive than collecting comparable resources through NHI contributions. These are based on fixed contributions according to the requirements of the NHI and not on income. Value added tax (VAT) is a key source of general tax in most countries. In many countries with universal health care systems, VAT is at a higher level than in South Africa. However, no firm decision has been taken on including VAT as a source of funding for the NHI.

O Private health insurance is not an effective system for financing universal health care: it is voluntary, uses risk rating (meaning that some people may be excluded or charged prohibitive fees), excludes many people, and contributions are not linked to income. An additional consideration is that South Africa's medical schemes are not typical private health insurance vehicles and have already been through several sets of reforms. They are non-profit entities and risk rating is prohibited.

Medical schemes in South Africa are a wellestablished financing mechanism used by 8.3 million beneficiaries. Occupationally linked restricted medical schemes cover 3.1 million beneficiaries and have gross contributions of R37 billion in 2010/11.⁹ **o Social health insurance** contributions are typically mandatory, linked to income (typically as a percentage of income) and not risk rated. They are therefore more progressive than private schemes, although they typically provide a limited set of benefits.

Payroll taxes are the predominant source of funding for NHI in some countries. However, once coverage becomes universal, the advantages of payroll taxes against general taxes become less significant and the more progressive nature of general taxes make them preferable.

o User fees (out-of-pocket payments) are a regressive form of health financing and can seriously detract from access to health services. Out-of-pocket payments should not constitute more than 15 to 20 percent of health financing revenue¹⁰ to minimise the risk of health costs seriously compromising a household's finances. In South Africa, user fees contribute about 8 percent of revenue, mainly for private services. The public sector derives only 1.8 percent of its expenditure from user fees and has exemptions for various groups.

One view is that there should be no user fees at all (with minimal exceptions, such as for non-South Africans and services outside the package). Another view is that user fees play a role in controlling unnecessary demand for discretionary services, and this contributes to avoiding catastrophic household health expenditure (defined as more than 40 percent of non-food household expenditure).

The National Planning Commission supports the broad principle of universal coverage outlined in the Green Paper on NHI and the process under way in government to investigate the most appropriate mechanisms for financing NHI. The success of NHI in South Africa will depend on the functioning of the public health system. The Commission supports attempts to improve the public health system, starting with the auditing of facilities and setting appropriate standards.

Inefficiencies in the private health sector need to be reduced to control costs. This includes revisiting the Health Professions Council's decision to bar private hospitals from employing doctors. As a result, doctors and specialists establish private practices on hospital premises,¹¹ attracted by the hospitals' investment in infrastructure and equipment. The hospitals refer patients to these doctors, and doctors generate demand for hospital beds. This model leads to over-servicing, which drives the cost of private health care up.

PRIORITY 6: Improve human resources in the health sector

There is a disparity in the distribution of health personnel between the public and private sectors, driven by differences in service conditions. This is linked to the financing of the health system. There are further difficulties in planning for human resource development, because PERSAL (government's human resources administration system) and the health council's registration system in the private sector do not provide accurate statistics. Key challenges relate to:

- The supply of health professionals and equity of access
- Education, training and research
- The working environment of the health workforce.

There is a lack of posts in the public sector: more graduates are being produced than the public sector can absorb.

Most of the additional resources in the public health sector have gone towards the costs of the occupation specific dispensation.

Community-based health care

A core component of re-engineering primary health care is to emphasise population-based health and health outcomes. This includes a new strategy for community-based services through primary health care outreach teams, based on community health workers. The strategy includes advocacy on major health campaigns, such as providing health information, and responding to issues identified by communities.

In South Africa, community health workers' interventions have been limited, in particular to HIV/AIDS care and prevention. In a growing number





performing a wide range of interventions, especially maternal, neonatal and child health. Community health workers can contribute to effective, comprehensive health care, including treating common, acute, mainly childhood illnesses.

Policies permitting community health workers to use antibiotics to treat pneumonia have been controversial, because health professionals are concerned that antibiotics might be misused or overused. However, in Ethiopia and Nepal the quality of care has remained high. Supportive national policies are needed to allow community health workers to administer antibiotics for specific childhood diseases, along with strengthened regulatory and quality controls for their distribution and appropriate use.

There is strong evidence that community health workers providing medication, including antibiotics, can eliminate epidemics and prevent deaths, such as from bronchol-pneumonia, even in remote settings in Nepal. Community health workers can be as effective as health professionals in carrying out protocols. Shifting life-saving tasks to lower cost personnel saves a health system money and saves many lives.

Community health workers have been successful in various systems, from those that emphasise community-controlled, part-time workers (Thailand, Rwanda) to those where community health workers are formal members of subdistrict health teams (Iran, Brazil). In all the countries where community health worker programmes are successful, community participation is through structures that are integrated into the wider health system.

The number of tasks a community health worker can perform depends on a variety of factors, the most important being the ratio of community health workers to families, the duration and quality of their training, and the extent and quality of their supervision.¹² The Re-engineering Primary Health Care policy proposes six community health workers for each primary health care outreach team, each community health worker covering 250 households, or about 1 000 people. Lessons learned from low and middleincome countries suggest that the necessary ratios for community health workers to families should be as many as 1:500 families for full-time workers, or 1:20 for part-time workers. In the early stages of a community health worker programme, when numbers are small, the recruitment and allocation of community health workers in the neediest areas should be prioritised.

As in other countries (Brazil, Rwanda, Thailand, Bangladesh), a community health worker programme in South Africa should rapidly increase the poor's access to health care and result in improved health outcomes, especially if the ratio of community health workers to population increases to ensure that all households are regularly visited and health problems detected early. In several countries, high ratios are achieved through a two-tier system, where the ratio of full-time community health workers is 1:250–500 households and they supervise part-time community health workers with more limited training.

When the community health worker programme is extended to the entire population, South Africa is likely to need well over 700 000 community health workers. Community health workers would undertake a range of activities, spanning the full breadth of rehabilitative/palliative care, treatment, preventive and promotive interventions. They would form the base of the health pyramid. In addition to making health care more accessible and equitable, this primary health care system will create more jobs and thus indirectly improve health by reducing the prevalence and depth of poverty. To achieve this model of community-based health care, the powers of conservative professional councils will have to be curtailed and the scope of practice for non-doctors, especially community health workers and nurses, enlarged.

Appropriately skilled nurses

The core of the primary health care outreach team will be a professional nurse, a staff nurse and community health workers. Many more trained nurses are needed, and their skills to carry out and support primary health care need to be strengthened. Community nurses will also need to be substantially competent in promoting health and preventing ill health. In several countries, community nurses (professional nurses with public health training) lead many aspects of district health work.

Training more midwives and deploying them in the appropriate levels in the health system could have an immediate positive impact on maternal, neonatal and child health, which would reduce maternal and child mortality.

The rapid expansion and reorientation of nursing training is required, and the policy decision to reopen and expand nurse training colleges supports this. But a curriculum review is needed. This must include advisers external to the current nurse training bodies (the South African Nursing Council and the Sector Education and Training Authorities), with expertise in public health and experience in countries that have implemented a comprehensive, district-based approach.

Doctors and specialist support teams

Family physicians in the district specialist support team will take the primary responsibility for developing a district-specific strategy and an implementation plan for clinical governance. They will also provide technical support and capacity development for implementing clinical governance tools, systems and processes to ensure quality clinical services in the district health system. Family physicians will also take overall responsibility for monitoring and evaluating clinical service quality for an entire district.

In some countries, the emphasis of family physician training and practice has been on individual patient care in a well-resourced context. In several countries that have promoted doctors as leaders of the district health team, these doctors have

been trained in five specialist areas (medicine, surgery including anaesthetics, obstetrics, paediatrics and psychiatry) and are also encouraged to get training in public health. This should be considered for the South African context.

Patient care in many district hospitals is poor. Prevention, primary health care and the quality of care is neglected. Specialised medical training is currently out of step with what South Africa needs. Training specialists to improve the quality of care in their field in district hospitals and surrounding health centres and clinics is the priority. They should also be trained to improve the planning, management and monitoring of district services in their field.

A major change in the training and distribution of specialists is needed, including speeding up the training of community specialists in each of the five specialist areas. Training would include compulsory placement in regions, under the supervision of provincial specialists. Specialists would be based at a

regional hospital, but would examine and improve the standard of health care across a system or within the region, including the quality of preventive care, care at primary care clinics and district hospitals, and the referral and transport network.

Increased investment in health personnel development

Brazil's health system has inspired some of South Africa's policies, particularly those dealing with primary health care. Brazil's health sector employs more than 2.5 million workers, about 10 percent of the workforce in the formal sector and far

greater than the



proportion South Africa's

health sector employs. Brazil has achieved this by significant investment in health research and development, including: expanding training, especially for nurses and technicians; up-skilling public health and auxiliary personnel, for example in problem solving and reflective thinking; and incentives to promote curricular reform in undergraduate training programmes.

South Africa's production of doctors, by contrast, has stagnated and until recently the number of nurses has declined. Training in public health, a core component of primary health care, is minimally supported by government funding, with most schools of public health relying heavily on external donor and research funding. Most categories of health professionals, except nurses, are disproportionately located in the private sector.

To implement policies that are more appropriate to the health care needs of South Africa, there needs to be a massive and focused investment in training health personnel. Government could incentivise the production of appropriately trained personnel in sufficient numbers within a realistic but short time.

PRIORITY 7: Review management positions and appointments and strengthen accountability mechanisms

Even though the numbers of people employed in the public health system have stagnated overall from the late 1990s, the number of people in management posts has grown. The percentage growth of management posts has greatly exceeded the growth of service delivery posts. Management personnel and their competencies to strengthen and rationalise public health services have recently been reviewed. Statutory structures need to be bolstered and resourced so that community representatives can participate in health system governance.

Equip health personnel to lead intersectoral action

Many of the factors that impact on health are outside of the health sector, and intersectoral action is a feature of most successful community health worker programmes. Its implementation takes several different forms: for example, in Iran, community health workers are the key implementers, while in Brazil they act primarily as health care workers and refer clients to other sectors.

Addressing intersectoral action is a priority. It requires:

• Identifying the key categories of health and health-related personnel

- Identifying their roles
- Elaborating appropriate, practical training programmes
- Developing a facility for ongoing mentoring and support in the field.

These actions are likely to require using the skills of experienced non-governmental organisations.

The health sector must play an active advocacy role in other sectors that affect the social determinants of health, such as safety and security, trade, water affairs and education. Some European countries have successfully integrated health into the policies of other sectors by insisting on a "health in all policies" approach, promoted at the highest level of government.

Strengthen human resources management

Human resources need to be strengthened at all levels by:

- Ensuring that human resource management personnel in the health sector are appropriately accredited
- Continuously reviewing remuneration
- Putting into operation incentive schemes, such as the occupation-specific dispensation, to boost services in underserved areas.

Effective performance management frameworks are an important aspect of human resources management. Managing performance and retaining staff should receive as much attention as producing new professionals. Poor management is the reason most doctors give for leaving the public sector. Recruiting skilled professionals from abroad is very difficult in South Africa because of considerable red tape. In the global, knowledge-based economy, South Africa is struggling to compete for this scarce resource. This requires urgent attention. Collaborate with traditional healers

African traditional medicine is one of the major service industries in this country: 28 million South Africans use traditional medicine and there are about 185 500 traditional medicine practitioners. Raw medicinal plants, prescriptions and herbal medicines add up to a pharmaceutical industry worth R2.9 billion. A policy framework for how traditional medicine fits into the health sector is important. The Traditional Health Practitioners Act of 2007 provides for national policy on traditional medicine, but actual integration of traditional medicine into the national health care system and structured relationships with the pharmaceutical industry has been limited.

PRIORITY 8: Improve quality by using evidence

Health services are costly, and it is essential to base planning, resource allocation and clinical practice on empirical evidence. Evidence-based evaluation, planning and implementation improves the quality of planning. The health workforce, particularly leadership, needs to become familiar with using evidence in all aspects of practice.

Empirical evidence on which to base predictions for specific health plans and targets should be regularly reviewed, and the data and scenarios to refine targets for 2030 should be continuously updated. At district level, this implies using the district health expenditure review and planning process effectively.

PRIORITY 9: Meaningful public-private partnerships

Meaningful public-private partnerships in the health sector are important, particularly for NHI. South Africa needs robust debates between public and private sector partners, including civil society organisations. Key issues include:

• Legal and governance frameworks

- The public-private partnership policy environment
- The sociopolitical dimension of such partnerships
- Public-sector capacity
- The business and financial implications of partnership implementation.

These partnerships should be guided by best practice principles in purchasing, provisioning, procuring and sound financial management of health services. They should create incentives for improving access, greater equity, higher quality, more innovation and serving the poor with efficiency.

CONCLUSION

What is presented in this chapter is a set of reforms that when implemented together will ensure that South Africans enjoy a better quality of life. We need to mobilise and use resources efficiently. This includes addressing financing inequalities, training and employing more health personnel, improving the physical infrastructure in health facilities, effective supply chain and inventory management practices to ensure health facilities do not run out of essential drugs, better management of patient records and strengthening the delegation of powers to those closest to ground. These are inter-related parts of the health system which require an integrated response.

The proposed goals and priorities are meant to provide an integrarted response to South Africa's health challenges and require all of government to work together. South Africa's governance system is founded on the principle of cooperative governance as set out in chapter three of the Constitution. We also have a number of laws that are meant to ensure that different spheres of government and departments within a sphere work together. With this legal framework in place and the experience of the past few years, it is clear that we do not need new laws. We need to encourage officials to work together and coordinate their efforts as they implement programmes at the lowest levels.

Private health providers, traditional healers and other sectors play a big role in the health system of the country. Contrary to the belief that private health providers cater for the rich, many poor people use services of general practitioners and private pharmacists. Traditional healers are the first health providers consulted by many people before visiting health facilities. Efforts to ensure that we have a single national health system must acknowledge and draw on the considerable expertise, know how and resources that private health providers and traditional healers possess.

The different regulatory institutions and professional bodies in the health sector must be strengthened to support these reforms. In some instances different institutions will have to be formed to ensure that we have a well-regulated and ethical health sector that puts patients first. Other regulatory institutions outside the health sector, such as the Competition Commission, the National Consumer Council, among others must take cognisance of these health goals in pursuing their mandate.



NOTES

- These priorities draw heavily on the World Health Organisation's seminal 2008 report. (World Health Organisation Commission on Social Determinants of Health (2008). *Closing the Gap in a Generation: Health Equity through Action on the Social Determinants of Health Geneva:* World Health Organisation.)
- These are the main recommendations from the 2008 consultative process to create a roadmap for health, facilitated by the Development Bank of Southern Africa.
- 3. National Health Amendment Bill, 2012
- 4. Council for Medical Schemes (2010). *Annual Report 2010/11*. Pretoria: Council for Medical Schemes.
- World Health Organisation (2009). Mortality and Burden of Disease estimates for WHO Member States 2004. Geneva: World Health Organisation.
- Guthrie T, Ndlovu N, Muhib F and Hecht R (2010). *The Long Run Costs and Financing of HIV/AIDS in South Africa*. Cape Town: Centre for Economic Governance and AIDS in Africa Cape Town. Haaker M (2011). *Fiscal Implications of HIV/AIDS in South Africa*. Washington: World Bank.

- World Health Organisation (2010). World Health Statistics 2010. Geneva: World Health Organisation
- World Health Organisation (2010). World Health Report: Health Systems Financing: The Path to Universal Coverage. Geneva: World Health Organisation.
- 9. Council for Medical Schemes, 2010.
- 10. World Health Organisation, 2009.
- Matsebula T and Willie M (2007). 'Private Hospitals' in Harrison S, Bhana R and Ntuli A (eds) *South African Health Review*. Durban: Health Systems Trust.
- 12. World Health Organisation, 2010. Guthrie et al, 2010.