SPECIAL ARTICLE

SOCIAL HEALTH INSURANCE AND TAX-BASED FUNDING OF HEALTH

Olive Shisana

The changes likely to occur in South Africa's health care funding have been outlined elsewhere.[1] Indeed, South Africa is going through major transformation of the health care system that began in April 1994, with the appointment of a new government.[2] In an earlier paper the author described the likely changes expected in the funding of health care in South Africa. The detailed health policy direction of the new government is outlined in the election manifesto of the ANC's Reconstruction and Development Programme (RDP), which later became government policy. In line with the election manifesto and the adopted policy, President Mandela, in his inaugural speech, announced the introduction of free health care for pregnant women and children where the need arose.

Underlying the RDP policy was a need for improved access to quality health care guided by the primary health care (PHC) approach. This approach goes beyond curative medicine, for it encompasses prevention, rehabilitation and provision of services at primary, secondary and tertiary care level.[3] It is an approach that encourages evidence-based health care service provision. This approach is still the principal mode of health service delivery in developing countries and increasingly in developed countries, for example within countries in the Europe region of the World Health Organisation (WHO).

The right to health care is entrenched in the South African Constitution, even though that right is limited by the availability of resources. South Africa spends 8.5% of its gross domestic product (GDP) on health care — a figure that is proportionately higher than the 5% recommended by the WHO. Its expenditure in international dollars approximates that of similar middle-income countries such as Mexico and Thailand, and yet its performance on the level of health and overall health system is very low, as shown in Table I.

South Africa ranks 182 out of 191 countries with regard to level of health, and 175 in terms of overall health systems performance. While the WHO figures are not empirically based (the WHO is currently carrying out national empirical studies to generate useful data), the level of South African health expenditure does not correspond with the population's level of health or with the country's overall health system's performance.

Table I. Health systems performance ranked according to three measures*

Country	Health expenditure in international $	Performance-level of health	Overall health systems performance
Mexico	55	63	61
Thailand	64	102	47
South Africa	57	182	175
UK	26	24	18
USA	1	72	37

* Source: World Health Report: Health Systems Performance, WHO 2000.

South Africa and the USA are the only two countries in the world where private sector spending on health care exceeds the public sector's expenditure.[4] In addition, they are two countries with the largest expenditures on magnetic resonance image (MRI) scanners.[5] The major difference between the two countries is that the majority of Americans use the private health sector while only a minority of South Africans use the private sector. Secondly, the USA is a high-income country, while South Africa is a middle-income country. Furthermore, the South African public health sector serves African blacks who are the majority population, while in the USA this sector serves the poor minority ethnic groups. The disparities inherited from the past continue to afflict today's South African health care system. These disparities are described in the ensuing sections.

Although South Africa boasts of spending more on health care than other similar middle-income countries such as Mexico and Thailand, the public health sector, which is the provider for 80% of the population, continues to be under-funded. The private sector spends R35.5 billion to serve 17% of the population, i.e. 7 million people, leaving the overwhelming majority, i.e. 36 million, to share the R32.2 billion allocated to the public sector. This translates to per capita spending of R5 070 in the private sector and R900 in the public sector. Put simply, in 2001 the South African government will spend on average R900 for every man, woman and child who uses the public sector health services, while the private sector spends more than R5 000 for each person.

An analysis of the composition of the private medical aid population of 17% yields evidence of even more serious inequities. Although blacks constitute the majority of the population, they comprise less than 10% of the population with medical scheme coverage. This means that the majority of South Africans do not have access to doctors, specialists, diagnostic equipment and treatment options available in the private sector. It also means that while some wait in long queues for care in the public sector, others receive care in a relatively much shorter time. This delay in receiving care could

Executive Director, Social Aspects of HIV/AIDS and Health, Human Sciences Research Council, Pretoria

Olive Shisana, BA (Soc Sci), MA, ScD

mean life or death. The outcome of the inequity in access for the majority of the population is that there are many missed opportunities for early prevention and care for the majority of the population.

The inequities that exist between the public and private health sectors, between the different population groups, and between the 'have's' and 'have-not's', is at the root of the South African public health funding crisis. This crisis is exacerbated by the explosive HIV/AIDS epidemic. South Africa has the largest number of residents living with HIV/AIDS in the world (at least 4.7 million people); one in 10 adult South Africans is infected with HIV and approximately 13.5% South African workers in 1999 were infected with this deadly virus (Metropolitan-Doyle projections of HIV infections — unpublished). Sadly, the country does not have a safety net for those infected to have access to evidence-based medicine, such as the highly effective antiretroviral therapy (HAART) which prevents new infections, reduces the chance of affected persons developing opportunistic infections and AIDS, and prolongs life. In spite of the side-effects of these medications, it is known that with appropriate treatment the number of new orphans can be reduced and that infected employees can stay at work longer, thus increasing the productivity of the country. Although those who manage to get HAART can do so using their medical aid cover, even then optimal treatment is not affordable. South Africa has no option but to identify health funding solutions that will cover the medical needs of almost 5 million people with HIV/AIDS. As a country, South Africa has a national and international obligation to halt the spread of this epidemic and to reduce the suffering of those afflicted. The country cannot do so if it does not have sustainable, comprehensive health care coverage for all South Africans.

The right to health care as enshrined in the constitution cannot be attained when such large and glaring disparities in access to health insurance, and hence health care, continue in the new democratic state.

The question is how is the government faring in fulfilling the constitutional requirement to improve access to health care for all? So far the government has used the country's tax base for provision of the following: (*i*) free health care to pregnant women and children in the public health sector where the need arises, as of April 1994; (*ii*) universal access to PHC as of 1 April 1996; and (*iii*) free health care for termination of pregnancy where the need arises (Choice of Termination of Pregnancy Act of 1996).

Despite the above efforts many South Africans still do not have adequate access to health care. Children older than 6 years of age, women who are not pregnant or lactating as well as men, are not eligible to obtain free health care at secondary and tertiary care centres. Although they may be charged according to a sliding fee scale at these health facilities, nonetheless, they still have to pay out of pocket at the point of service. Moreover, the nearly 5 million South Africans who are HIV-positive do not qualify for free health care, and yet the services they need are inordinately expensive. These major gaps in service provision should spur the government to seek additional funding for the public health sector. With the inequities continuing between the public and private sectors in post-apartheid South Africa, it cannot be done in isolation of the latter's resource base.

To address this funding gap the government had to respond to the RDP's demand to investigate the option of a national health insurance (NHI) for South Africa. In line with this, a process towards finding solutions to the problem had begun. First with the assistance of consultants, government officials recommended a NHI that would cover services at primary, secondary and tertiary care facilities. In line with this recommendation and under the NHI paid for through payroll tax, all general practitioners (GPs) would have had to be contracted to the state. This proposal elicited mixed reactions. It created a furore in the health sector, which is not surprising as its implementation would have fundamentally altered the face of health care in this country.

In implementing the RDP's policy, the Minister of Health established in 1994 a Committee known as the Broomberg and Shisana Committee of Inquiry to investigate the NHI system. The Committee recommended a system of social health insurance (SHI) and 'reinsurance' of the medical aid to a defined public hospital package of health services, coupled with regulation of the private health sector.[6]

The Department of Health implemented many aspects of the Broomberg and Shisana Report of 1996 entitled 'Restructuring the Health System for Universal Primary Health Care' through passage of the Medical Schemes Amendment Act of 1998 and also improvement in the PHC system, described below. However, many other recommendations from the report remain unimplemented.

Later the government appointed a Committee of Inquiry into Social Security to report to the Ministries of Social Sectors (i.e. Health, Social Development, Labour, Transport and Finance), with a responsibility to provide specific recommendations on the establishment of a comprehensive national social security system. This social security system includes health funding and insurance. The committee was required to examine the public and private sectors with regard to meeting the constitutional requirement of universal access to basic health care. The committee held consultative hearings last year. The consultation document was the 1997 SHI proposals by the Department of Health.

SUMMARY OF PROPOSALS FOR FUNDING OF HEALTH CARE

National health insurance option

The basic tenets of the initial Department of Health, NHI

option were as follows:

1. There should be NHI for all. This meant that there should be universal coverage for all South Africans residing legally in South Africa.

2. All doctors should be contracted on the State Health Plan and be given a list of patients in a given community to be served.

3. Payment to medical doctors was to be made on a capitation basis, meaning a flat fee would be provided for each single person using the service, regardless of the number of services rendered and the visits the person makes.

4. There would be no room for additional health insurance and services rendered for those wishing to insure themselves.

5. The proposed plan would cover the entire country in one National Health Service Plan such as that operating in the UK.

6. Primary, secondary and tertiary care services, which includes care at clinics, doctors rooms and all types of hospitals, would be covered by NHI.

Although the proposed Department of Health's NHI plan fulfilled the constitutional requirement of access to health care for all, it was severely criticised as being inflexible. A major criticism was that all doctors were to remain as employees of the state with no option for working elsewhere. In addition, there was no room for additional insurance coverage. The option was considered too costly and some were concerned that it would impose an additional burden on taxpayers. In spite of the drawbacks, the plan was deemed progressive in various quarters as it allowed for redistribution of contributions from the wealthy to the poor, the healthy to the sick, and from the young to the old. It would have been possible to implement the plan with a much larger pool of resources. The plan, in fact, would have contained expenditure through a capitation payment system which would have led to cut in costs of health care administration.

Committee of Inquiry into NHI (Broomberg and Shisana, report of 1996)

The ensuing sections are based on the Broomberg and Shisana 1996 report, as it formed the basis for the government's 1997 proposal for SHI. The following were the likely scenarios that could emerge from the SHI plan recommended by the Committee of Inquiry.

1. There would be universal access to PHC based on a district health system as a unit for service provision, with proposals to split the purchaser and provider of services, coupled with built-in competition between the public and the private sector health facilities in health service provision.

2. There would be mandatory health insurance coverage of private health insurance for all in employment for a minimum defined package of services.

3. It would allow members of the SHI scheme to purchase a discretionary (top-up) medical aid or insurance package to augment the state's sponsored plan.

4. Coverage would be limited to use in a public hospital should it be necessary, or to a competing private hospital.

5. Employed people currently receiving services for free in hospitals would not do so under this plan.

6. Since primary care services are covered under free PHC, people receiving such services would not be included in the SHI plan.

7. Employed persons not covered by any medical schemes would be obliged to be covered under SHI.

8. Funds would not necessarily go through a medical scheme but could be channelled through a new state-sponsored hospital plan.

9. Monthly payment in 1995 terms would be R56, split between employer and employee on a progressive basis. Payroll tax would be 0.66% which would generate R1.3 billion - R3 billion for public hospitals (subtracting the cost for administration).

10. Hospitals would be allowed to retain a certain proportion of revenue to improve efficiency and quality.

11. The policy would go with regulation of the medical scheme industry, whose key features would be: (*i*) a national defined standard core package of services; (*ii*) contribution rates for the mandatory core benefit package set in relation to income; (*iii*) participation of all schemes in an equalisation fund based on risk profile (demographic profile) to cover core benefits; (*iv*) limited cover for those who start contributing to any system close to retiring; (*v*) no risk rating (on health status) but community or group rating; (*vi*) requirement to continue benefits to those enrolled for a defined period after becoming unemployed; and (*vii*) all health insurance products and medical schemes regulated under one Act.

While there was quite a good response from the public and the private sector when the proposals were mooted, there were many concerns. The excitement that followed the release of the report arose more from the proposal to introduce universal access to PHC than from the proposal of SHI. Indeed, on 1 April 1996 the government introduced a policy of free PHC for all South Africans in publicly funded institutions. Another set of proposals related to the regulation of medical schemes, which were legislated in the Medical Schemes Amendment Act, was accepted by the government and came into effect in January 2001. The impact of these amendments will be felt in the near future.

In any case the plan proposed in the Broomberg-Shisana report was criticised because it was considered to favour the private sector, since it fostered competition between the public and private sectors at a time when the former was ill equipped

to compete favourably. Furthermore, there was concern that the financial benefits of the SHI scheme would be inadequate to support the public health system. More importantly, the plan was legitimately criticised because it did not allow for a universal plan accommodating all South Africans; it still entrenches the disparities in access to health care.

The government's 1997 proposal for social health insurance

The government distilled the recommendations of the Committee of Inquiry Report (i.e. the Broomberg and Shisana 1996 report) by abstracting and modifying those aspects it found useful. As a result, the following proposals became the basis of the proposed policy that was used for further consultation under the aegis of the Committee of Inquiry into Social Security:

- The SHI scheme would support the public health system.
- All formal sector employees and their dependents should be insured against public hospital use.
- The scheme would provide formal sector employees with state-sponsored insurance cover for essential hospital care at low cost.
- There would be mandatory direct membership for all employed people above the income tax threshold.
- There would be indirect participation via 'reinsured' registered medical scheme (forward funding) which would eliminate 'dumping' by the private sector.
- Contributions would be shared between employer and employee — fixed payroll percentage.
- The new SHI would be part of a single social security system for the country.
- A SHI fund controlled by a statutory SHI authority would be proposed.
- The existing medical schemes would be used for collection of payments.
- The policy would be linked to the amendment of the Medical Scheme's Act and other public sector governance issues such as: (*i*) reinforcement of community rating; (*ii*) introduction of prescribed minimum health care benefits; and (*iii*) revenue retention in hospitals.

The government's proposal was commendable because it sought to strengthen the public sector's resource base, but it had a major disadvantage in that it did not lead to large revenue increases. In fact, the increased funding, according to the Congress of South African Trade Unions (COSATU), was likely to be absorbed by the administrative costs.

Although the government's proposal ensured that those currently getting a free ride from public hospitals would now pay for the services, there is no guarantee that these employees would have agreed to contribute to the services that they were currently getting for free or next to nothing, especially if they believed they were the only ones obliged to contribute to a system likely to be used by many who had not contributed. The latter category includes those with no medical aid or those that had exhausted benefits for the year.

The major problem with the government's proposal was that it did not cover the whole population. However, one could argue that if the 7 million currently served by medical aid schemes were suddenly to use the public sector, the latter might collapse. Recent information indicates that the rate of increase of medical scheme's premiums exceeds the rate of inflation. Part of the reason for these high costs relates to use, sometimes overuse, of very expensive diagnostic equipment and drugs. It is in the best interests of the state to keep the private sector functional, but costs need to be contained.

WHAT THEN FOR SOUTH AFRICA — SHI OR NHI?

South Africa should establish a NHI for all

The proposed plan that the author would like to put forward for consideration should be provided as part of a system of PHC, which would be based on a district health system model. This should form a microcosm of the entire health care system as described in the report on Restructuring of the National Health System for Universal Primary Health Care, 1996. This implies that the clinics, community hospitals, regional hospitals, specialised and tertiary hospitals would be linked through structured referral systems. They would be organised in such a way that the package of services provided would clearly be defined through national norms and standards. The state would have the responsibility of dividing the population into manageable service catchment areas for service delivery, e.g. a doctor may have a practice catering for a certain number of individual patients a year living in a particular community.

The author proposes that South Africa develops a NHI for all those living within the borders of the country as citizens or legal permanent residents. This NHI would be universally accessible. It would also provide quality health services that would be subjected to routine performance assessment, monitoring and evaluation to ensure client satisfaction, safety and quality care. Under this plan this insurance would be mandatory for all those earning an income, whether in the formal or informal sectors, as long as they pay tax. Those who choose to have an additional insurance would be allowed to do so provided that they contribute to the NHI.

Source of funding

The financial contribution would come from employers and employees, each contributing equally. This is a payroll tax that

could be used in conjunction with the general revenue fund to finance all health services. Those who are self-employed and pay taxes would also contribute to the fund. The amount paid would be income-based — the lower the income the less the contribution, the higher the income the higher the contribution. This progressive contribution would enable cross-subsidisation, with the high income groups supporting the low-income groups. Such a proposal needs to be costed.

Administration of the Fund

Such a system would be administered through a NHI authority (as proposed by COSATU) and would report to Parliament. The Fund's administration costs would be set by Parliament to ensure that the cost is contained. The Auditor General would audit the Fund routinely and the report would be published annually, both for Parliament and for public scrutiny.

Role of medical practitioners

All medical practitioners under this scheme would be contracted to the NHI authority. All GPs would be contracted to provide services to a defined number of patients in a defined area within the boundaries of the districts. This means that the responsibility for the health of the population in a defined community would be that of the medical practitioner. Under this proposal, GPs would practice community health rather than just individualised medicine. These GPs may be working in either private or public-sector clinics.

In terms of this proposal hospitals (private and public) would provide contracts to specialists and medical practitioners to serve patients.

Those medical doctors who opt to stay out of the NHI could serve those who will purchase a medical aid scheme or health insurance provided by the private sector.

Role of medical schemes

The medical schemes would still exist under this plan because they would cover those who choose to have an additional insurance. They might be fewer under this plan, as many may find it viable to merge and spread the risk. They would continue to be regulated under the Medical Schemes Act.

Forms of payment

Under this plan payment for doctors would be based on capitation and they in turn would use it to pay their staff based on nationally negotiated salary scales for health workers. This would free the medical practitioner to develop a community health plan, and decide which preventive, curative and rehabilitative services would be provided at community or facility level. Under this scheme there would be no payment at the point of service.

Services provided

With the exclusion of cosmetic services, all other health services would be provided through the NHI. The exclusions would be defined by the state to ensure that the fund is sustainable.

The plan would cover treatment for HIV/AIDS-related illnesses. This cover would include diagnosis, prevention, curative services (opportunistic infections, HAART), care and rehabilitative services.

RATIONALE FOR A NHI PROPOSAL

Given that the South African constitution requires the state to provide universal access to health care within the resource envelope of the country, it is essential that any plan for financing the health care system should cover all South Africans.

This proposed plan, if implemented, would contain costs. This is crucial because the escalating private sector-based medical scheme costs are no longer sustainable. It will do so through the use of capitation, which caps costs of services provided. Coupled with measures of performance, monitoring and evaluation, the capitation payment system offers a good opportunity to curb costs.

The plan is preferred to SHI because it includes all South Africans under one plan and offsets the situation where the nation is divided into the 'have's' who have access to First-World medicine and care and the 'have not's' who have access to Third-World medicine. The proposed plan reduces inequities by ensuring that all South Africans have access to quality service that is affordable by the state. The individual would also be able to afford to pay the premium, given that a progressive contribution is proposed. Those who choose 'Rolls Royce' care can subscribe to a medical scheme, but only after they have contributed to a national effort. Some argue that this may be unconstitutional. The author does not agree with this assessment. South Africans pay tax, which is used for many services which not all South Africans use, yet people do not complain that they are being forced to pay tax for these services. People pay it knowing full well that they are contributing to a common pool to ensure that others are benefiting.

This plan is recommended because, by including all 43 million South Africans in the plan, the healthy will subsidise the sick, the young will pay for services used by the old (because the former are relatively healthy) and high-income earners will subsidise low-income earners. This is a redistributive system that benefits all South Africans.

Finally, this plan is recommended because it deals with one of the major public health and development issues facing the country, namely HIV/AIDS. As can be seen in South Africa

today, there are only two kinds of people — the infected and the affected. For this reason all South Africans have an obligation to contribute to halting the spread of HIV, and to providing care for the infected. To ensure that there is still a viable and just health system in the future, all South Africans will have to contribute to the management of HIV/AIDS.

Conclusion

Although the government has spent the last 7 years investigating the SHI and NHI options, it has not been able to come to a decisive conclusion. The plausible reason is that the country itself is not united under one option. This lack of agreement among South Africans may explain the government's paralysis on this matter. One can continue to debate the different options. In the meantime, the cost on the health of South Africans as demonstrated, for example, by the exploding HIV/AIDS epidemic, is immeasurable.

The author would like to thank Ms Efua Dorkenoo for editing the document. The views expressed here remain those of the author and are not necessarily those of the Human Sciences Research Council. They were informed by the debates held on this subject since 1994.

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Clinical versus molecular diagnosis of heterozygous familial hypercholesterolaemia in the diverse South African population

Joseph Vergotine, Rochelle Thiart, Maritha J Kotze

Objective. Familial hypercholesterolaemia (FH) is a common genetic disease characterised by strikingly elevated plasma cholesterol concentration, which can lead to premature coronary death if left untreated. In this study DNA diagnosis of FH, which allows detection before onset of clinical symptoms, was evaluated against biochemical parameters routinely used to identify subjects with FH.

Design. A population-based strategy was used to identify low-density lipoprotein receptor (LDLR) gene defects in South Africans with clinical signs of FH, followed by a family-based DNA screening approach for presymptomatic diagnosis of FH.

Results. DNA screening of 790 at-risk relatives for the FH-related mutations identified in 379 index cases, allowed accurate disease diagnosis in an additional 338 relatives and exclusion of the relevant mutation in 452 individuals. The sensitivity and specificity of the diagnosis, based on total cholesterol values measured in family members of FH heterozygous index cases with one of the three founder-related mutations, D154N, D206E and V408M, were 89.3% and 81.9%, respectively.

Conclusion. The predominance of 10 LDLR gene mutations in the local population justifies population-directed DNA diagnosis of FH in South Africa on a routine basis, particularly since expression of the defective gene measured in biochemical tests does not allow accurate diagnosis of FH in all cases. DNA testing provides a definitive tool for family tracing aimed at pre-clinical diagnosis and preventive treatment of FH.

S Afr Med J 2001; **91:** 1053-1059.

Medical Research Council Cape Heart Group, Division of Human Genetics, University of Stellenbosch, Tygerberg
Joseph Vergotine, MSc
Rochelle Thiart, PhD
Maritha J Kotze, PhD