THE 2012 NATIONAL HEALTH INSURANCE (NHI) INTERNATIONAL SCIENCE SEMINAR

Practical aspects of implementing a single payer National Health Insurance (NHI) universal coverage in South Africa:

Experiences from countries

6 - 7 December 2012
CSIR Conference Centre

DST SCIENCE SEMINAR

science & technology
Department:
Science and Technology
REPUBLIC OF SOUTH AFRICA

HSRC
Human Sciences Research Council

CONTENTS

LIST OF FIGURES

ACRONYMS

AIMS	Advanced Incident Management System
ANC	African National Congress
APL	Approved Post List
ARV	Antiretroviral
CEO	Chief Executive Officer
CHW	Community Health Worker
CSIR	Council for Scientific and Industrial Research
DST	Department of Science and Technology
GP	General Practitioner
HR	Human Resources
HSRC	Human Sciences Research Council
ICT	Information Communication Technology
MAC	Ministerial Advisory Committee
NDOH	National Department of Health
NHC	National Health Council
NHI	National Health Insurance
OSS	Operation Sakuma Sakhe
PHC	Primary Health Care
R	South African Rand
SA	South Africa
US	United States of America
WHO	World Health Organisation
WISN	Workload Indicators of Staffing Need

PREFACE

The Department of Science and Technology (DST), in collaboration with the Human Sciences Research Council, hosted an international seminar on a National Health Insurance (NHI) on 6 – 7 December 2012 at the CSIR International Conference Centre, Pretoria. The theme of the seminar was 'Practical aspects of implementing a single payer NHI universal coverage: Experiences from other Countries'. The seminar aimed to contribute towards the design, planning and the effective and efficient implementation of the NHI in South Africa. In the process of supporting the government in operationalising the NHI, the seminar engaged and drew on concrete experiences of leading international and local scholars and technocrats. It provided a platform for robust engagement, focusing specifically on empirical evidence (local and international) from key players in the health-care field. Those designing the NHI plan will be able to draw on the invaluable experiences of those countries that have implemented NHI and consider challenges and pitfalls in both the design and implementation processes, which is crucial in understanding - and above all knowing - what to avoid to ensure success.

This seminar brought together leading international researchers, policy makers and a range of other stakeholders to debate these questions in depth and suggest lessons for the way forward.

Dr. O Shisana
CEO, Human Sciences Research Council and NHI Ministerial Advisory Committee Chair

THE PARTICIPANTS

The participants included representatives from a broad range of organisations including: members of the Ministerial Advisory Committee for NHI, insurance companies, universities and research councils, trade unions, medical aid schemes, multinational corporations, the South African mining sector, business analysts, representatives of medical professional organisations, public and private health service providers and government departments.
The seminar was attended by approximately 170 people over the two days.

EXECUTIVE SUMMARY

The Department of Science and Technology (DST), in collaboration with the Human Sciences Research Council, hosted an international seminar on National Health Insurance (NHI) on 6 and 7 December 2012 at the CSIR International Conference Centre, Pretoria. The purpose of the seminar was to move from the earlier emphasis on conceptualising National Health Insurance to its implementation, the practical aspects and how to learn from other countries' experiences.

Preparatory work for NHI was enabled by the Green Paper on NHI promulgated in August 2011 and the proposed interventions are being tested in 11 health districts in a pilot programme which will run for five years. The Seminar sought to facilitate evidence-based planning and provide additional insights for these activities based on local and international experience.

A study of attitudes and behaviour regarding NHI presented by Dr. Olive Shisana[1] found that 30% of those with healthcare insurance use public facilities for specialist care but far fewer of those without cover use private facilities. One of the goals of NHI is to address these inequities in the current two-tiered system, making quality health care a reality for all. In terms of public perceptions, 91% were in favour of NHI being a national priority and 80% preferred NHI over the current health system. More than 70% of people felt that NHI will be beneficial for families, provide better quality health care and allow the country to be better off. Public support for NHI is high, even though there are differences by sex, race, employment status, and current health care type. Over 73% of the population was in favour of NHI, if it provided coverage for all, even if it means increasing taxes.

Comparing NHI experiences from around the world provides many lessons, which Prof. Bill Hsiao of Harvard School of Public Health summarised in a series of 'Global Lessons'. One of these explored issues relating to governance of NHI. A common mistake is to assume that the Ministry of Health is the right organisation to manage the health funds when, in reality, health ministries are better at managing health services than they are at managing funds. It is therefore often better to create a joint management board, with some independence from the state, i.e. a parastatal entity. Prof. Hsiao described three steps to implement NHI: pilot districts, scientific monitoring and evaluation of these pilots and then using the information to draft legislation.

Dr. John King explained that the Canadian public healthcare system is considered the country's most important national asset by 85% of the population. This healthcare system ensures that:

- access to medically necessary care is available, regardless of ability to pay;
- all Canadians are treated equally (rich and poor may be treated in the same room);
- tax dollars go towards patient care (administrative costs are lower than the private system); and
- Canadians enjoy an unprecedented level of health.

It is not without its challenges, however, and the ultimate question is whether the system is sustainable. Costs are increasing while revenue decreases and the question is being asked whether a two tier system has merit. Some argue that a two tier system undercuts universal care and in the UK the system has apparently only benefitted the wealthy.

[1] Evans M, Shisana O. Gender differences in public perceptions on National Health Insurance. S Afr Med J 2012; 102(12):918-924. [http://dx.doi.org/10.7196/SAMJ.6397]

Prof. Craig Household pointed out that human resources (HR) are the single most expensive resource and consume about 60% of the health budget. Although people often say they have a shortage of staff, in many cases they are just not optimally engaged and there is a need to look at the productivity of existing staff more systematically. The organisational culture has to be changed from formal rules and prescripts which will achieve compliance, standardization and average performance, to building commitment to values and norms which will lead to superior performance and service delivery.

Dr. Uma Nagpal urged the delegates to join hands to usher in the era of social solidarity and universal health coverage heralded by NHI. Some of the lessons learnt from the NHI pilot district in North West province include the following: Pilot Districts need to be analysed for their strengths and these aspects of implementation should be tested and thoroughly documented; decentralization, where there is capacity, will improve efficiency; more robust engagement with the private sector is required to allay their fears and involve them in service delivery at PHC level; and NHI has brought new enthusiasm among health workers through the pilot phase.

Dr. Aquina Thulare presented a paper on behalf of Dr. Sipho Kabane which explained that in the Free State, priority is being given to the implementation of a patient safety management system and the Facility Improvement Project. Patient Safety work began in 2008 with the introduction of an Advanced Incident Management System and an incident reporting study. The new system greatly increased incident reporting and changed the culture from one that focused on identifying misconduct and negligence to root-cause analysis and a prevention focus. The Facility Improvement Team (FIT) established that it is possible to record several 'quick wins' by addressing issues such as basic repairs, rubbish removal and putting unused equipment to use. However, these actions should not distract the focus of the FIT from the major tasks that remain to be done.

Dr. Sibongile Zungu explained that in KwaZulu Natal a ward–based health care system has been adopted and at each clinic services are coordinated through a Clinic Operations Team, (providing basic clinic services), a School Health Team and a Family Health Team. The other component is the District Specialist Support team providing more specialised support and training. Government interventions are coordinated through a 'war room' which takes a multi-departmental, community partnership approach. There were some shortcomings in management of the intervention which were attributed to inadequate orientation of the responsible manager at the clinic but evaluation has shown that communities appreciate the Family Health Team and voluntarily participate in the services offered. Human resource challenges are considerable, with up to 60% vacant medical officer posts, but this is being addressed by sending students to Cuba for public health orientated medical training.

Although it was based on a report prepared 18 months ago, the presentation by Mark Claasen gave important insights into the financial aspects of NHI. The rationale for the approach was that insurance is always location specific and information from one NHI system cannot necessarily be extrapolated to other places. There are many assumptions underlying cost analysis and it will be important to verify these against a detailed implementation plan and experiences in the pilot sites.

Prof. Charles Hongoro spoke on the procurement of goods under a universal coverage system. He presented a long list of challenges facing the current procurement system and the complexity of the South African pharmaceutical supply chain. Various options exist according to international experience but Prof. Hongoro argued that central procurement

for high cost health products is advisable because there is an immense need for systems strengthening; economies of scale are possible; and greater commodity security and more reliable distribution can be ensured.

Prof Rachel Lu explained how Taiwan had implemented NHI in 1995 by merging three major social insurance programmes. This expanded coverage to the 43% of the population who were then uninsured. NHI was made possible by several economic forces which included rapid economic growth during the 1980s, relatively modest health expenditure (4.3% of GDP in 1987) and a trivial private health insurance market. Taiwan succeeded in achieving proportionally distributed social insurance costs between rich and poor from 2006 to 2009 and out-of-pocket payments proportionally distributed from 2008 to 2010. However, sustainability became a challenge and premiums were failing to keep up with costs. In 2010 there was a US$ 2.1 billion shortfall which had to be recovered by an increase in premiums. From 2013 a dual payment system is to be introduced which consists of a 4.9% payroll-based contribution plus 2% based on non-payroll income (investments, rent etc).

Prof. Di McIntyre spoke about possible provider payment mechanisms for the NHI. The future purchasing context is likely to be a purchaser-provider split with a public entity purchasing from public and private providers on the same terms. Because NHI is to be funded by taxes an important part of the costing is to use the pilot districts to provide evidence to help the NHI fund, NDOH and the Ministry of Health negotiate with Treasury for adequate resources.

The potential payment mechanism for PHC is a global budget allocated to the district based on risk-adjusted capitation. Payment for performance with some fee-for-service is another option but the evidence of impact of this mechanism is very weak. Hospitals need a system that ensures efficient provision of services to those in need and case-based payments. Other provider payment arrangements, e.g. sessional appointments, price and volume contracts, for services such as high cost diagnostics and specific surgical procedures are also being considered.

Dr. William Savedoff spoke on the potential for corruption in health care and how to prevent it. Health sector corruption usually falls into three categories: crimes against patients; crimes involving public funds; and abuse of power. Strategies to combat corruption also usually fall in three categories: broad governance reforms; sector-specific prevention; and sector-specific investigation. Social norms are the key driver of corruption and likewise reinforcing appropriate social norms can help make systems self-policing. There must be visible consequences for both good and bad behaviour. NHI design affects vulnerability to fraud through the payment systems required. Fee-For-Service is vulnerable to up-coding, false claims and invented services. Capitation is vulnerable to invented enrolled persons and failing to report people who leave or die.

Dr. Savedoff identified four strategies to mitigate corruption.

1) Address motivation and social norms;
2) establish accountability for performance, to different actors, with consequences;
3) design reliable and verifiable systems; and
4) establish intelligence units, test discovery mechanisms and know the terrain.

The seminar presentations and the ensuing discussions have various implications for policy and planning. The main issues arising are listed below.

- The seminar marked a change in emphasis from conceptualising National Health Insurance to its implementation, practical aspects and learning from other countries' experiences.
- An underlying principle of NHI is that 'health' must be considered a public good and not a commodity to be exploited or left to market forces.
- Public support for NHI is high, even though there are differences by sex, race, employment status, and current health care provider (public or private).
- The majority favours providing NHI over holding down taxes.
- NHI is a popular policy and government can move with confidence to introduce it because it is seen as a way to address inequities in access to quality care.
- A common mistake is the failure to recognise that the ministry of health may not be the best equipped to manage the NHI funds, even though it is the agency that knows how to provide health services. Evidence suggests that it is therefore better to create a joint board with some independence from the state, i.e. a parastatal entity.
- The Pilot Districts need to be analysed for their strengths and these aspects must be carefully documented for others to be able to replicate them.
- A dedicated agency to scientifically monitor and evaluate the pilot districts is required as part of NHI implementation.
- Canadians enjoy some of the best healthcare in the world but at high cost and the sustainability of the system is coming under scrutiny. A two-tier system with some private insurance is currently being debated.
- In South Africa a greater focus is required on improving the management, productivity and performance of staff.
- A centralized system often results in delays; decentralization, where there is capacity, will improve efficiency.
- Decentralising to the lowest level possible helps to make people more accountable for the funds they are using.
- A key issue in the costing analysis was that a single payer system, which is government run, differs fundamentally from commercial insurance schemes and therefore previous costings may not have been realistic.
- Cost estimation is the key to the success or failure of NHI in terms of sustainability. The pilot studies should be used to look at the available services and their costs in different provinces and what the utilisation rates become. Use the pilots to inform and provide evidence for the next round of cost estimation.
- It makes economic sense to introduce central procurement for high cost items (e.g. ARV tenders) and there should be a national health products catalogue.
- Taiwan provides an example of almost universal coverage (99%) achieved in a period of rapid economic growth and strong political will. However, there are challenges in terms of potential insolvency and a dual track premium system (using payroll and non-payroll income) has just been introduced.
- Unintended system responses may occur when NHI is introduced. In Taiwan there has been an expansion of larger (private) hospitals, which have revenue advantages due to their higher accreditation level, and a proliferation of PHC clinics.
- Although NHI is called 'insurance', since it is funded by taxation, the budget limits will be set by Treasury. An important part of the costing process is therefore to use the pilot districts to generate the evidence necessary for the NHI fund, NDOH and the Ministry of Health to negotiate with Treasury for adequate resources.
- International lessons have taught us that fee-for-service and line-item budgets are the least desirable strategies and are best avoided as the main provider payment mechanism because cost containment will be a problem with these.

- Both as a means to improve efficiency and for reducing corruption, having clear, strong, independent evaluation of outputs, is an incredibly strong tool.

CONTEXT AND BACKGROUND

WELCOME

Dr. Charles Hongoro, Medical Research Council
Dr. Charles Hongoro welcomed the distinguished guests and delegates and described the purpose of the seminar as being to move from the earlier emphasis on conceptualising National Health Insurance to its implementation, practical aspects and learning from other countries' experiences. The idea being not to copy other countries but to see what has been successful, to identify pitfalls and avoid or manage them.

Dr. Zweli Mkhize, Premier, KwaZulu-Natal
Dr. Zweli Mkhize explained that implementation of NHI seeks to achieve universal health care coverage and cited the recent census which had highlighted inequalities in society, including health, which need to be addressed. He pointed out that 'health' must be considered a public good and not a commodity for market forces. In 2010, the ANC committed to fast track NHI and to promote the concept to the general population. The mechanisms for ensuring universal access to health care are outlined in the Green Paper on NHI[2] and this supports the constitutional right to access health care. Services will be provided by accredited public and private providers and the National Department of Health (NDOH) will have responsibility for planning while the provinces will provide personal health services.

The White Paper will be released in the near future and government is working to finalise the implementation plan. The identified interventions are being tested in a pilot programme in 11 health districts which were selected based on demographics, socio-economic characteristics and disease profiles. Conditional Grants amounting to R1 billion have been provided by Treasury for the first three years of the pilot to fund general health system strengthening initiatives at district level, including the establishment of the District Health Authority as well as piloting components of the single payer, single purchaser model.

Infrastructural refurbishment will require about R200 billion and the facilities must be in place before NHI can be started. There is also a need for more doctors to be trained. The 2012 ANC National Policy Conference has recommended that a dedicated NHI Fund must be set up as a matter of urgency.

The target for introducing NHI is 14 years and during this time information on best practices has to be collected. Currently, the management of the health districts is being examined and there is a need to draw on experiences of other countries when developing the South African model. This Department of Science and Technology Science Seminar brought a wealth of knowledge from international speakers to help operationalize NHI.

[2] Government Notice 657 of 12 August 2011, Gazette No. 34523
http://www.doh.gov.za/docs/notices/2011/not34523.pdf

POPULAR SUPPORT FOR NATIONAL HEALTH INSURANCE IN SOUTH AFRICA

Dr. Olive Shisana, NHI Ministerial Advisory Committee (MAC) Chair and CEO of the HSRC

Dr Olive Shisana presented a paper on public perceptions of NHI policy which was recently published in the South African Medical Journal.[3] The paper investigated inequities in the health care system that NHI will address; assessed the extent of public support for NHI and NHI-related tax; and explored options for NHI Fund management. The study used a nationally representative sample of 3,112 adults (16 years or older) and achieved an 89% response rate. The majority of respondents (56%) used the public health system, 25% had some form of insurance, 17% paid out-of-pocket for health care, and 2% said they go without.

Those without health insurance were in poorer health, less satisfied with their health care, and likely to postpone getting the health care they need. They were also more likely to be unsatisfied with health care costs, more likely to have difficulty affording health care and prescription drugs, and are more than twice as likely to borrow money or sell assets for health care. Thirty per cent of those with healthcare insurance use public facilities for specialist care but far fewer of those without cover use private facilities. NHI seeks to address these inequities, making quality health care a reality for all.

In terms of public perceptions, 91% were in favour of NHI being a national priority and 80% preferred NHI over the current health system. More than 70% felt that NHI will be beneficial for families, provide better quality health care and allow the country to be better off.

Women are more likely to use the public health system and more women than men felt they would benefit from NHI. Men are more likely to have full-time employment and access to medical aid schemes which may explain their lower interest in supporting NHI.

All race groups felt NHI should be a national priority and that NHI would be better than the current system. However, rates of support by Whites (86%) were lower than Black Africans and coloureds (91%) or Indians/Asians (95%). These rates reflect the legacy of apartheid and white people still being more likely to have full-time employment, higher incomes, education, and access to medical aid schemes.

Those who use the public system supported NHI the most while those with insurance (medical scheme or other private health care) are the lowest supporters, although a majority still supported NHI. When asked whether people would join NHI if the public services were free, 68% said yes they would use the public health sector. However, less than half of Whites would join vs. about 70% for other race groups.

Over 73% of the population was in favour of NHI, if it provided coverage for all, even if it means increasing taxes. Females support a tax slightly more than males (76% vs. 70%); Black Africans support the tax the most, followed by Coloureds and Indians/Asians, with Whites as the least supporters (only 55%). Those employed full-time demonstrated a high level of support (68%); and those who use the public system were again highest supporters of NHI despite a tax. Whites were the only group with low acceptance (55%).

[3]Evans M, Shisana O. Gender differences in public perceptions on National Health Insurance. S Afr Med J 2012; 102(12):918-924. [http://dx.doi.org/10.7196/SAMJ.6397]

NHI is seen as a vehicle for improving quality of health care and good for the country. Public support for NHI is high, even though there are differences by sex, race, employment status, and current health care type. The majority favours providing NHI over holding down taxes and about half of the working population of all races, except whites, is willing to pay additional tax. The preference is for a state-run agency to manage the NHI Fund. NHI is a popular policy and government can move with confidence to introduce it because it is seen as a way to address inequities in access to quality care.

INTERNATIONAL EXPERIENCES IN IMPLEMENTING NHI

KEYNOTE ADDRESS: GLOBAL LESSONS: IMPLEMENTATION OF SINGLE-PAYER NHI

Prof. Bill Hsiao, Professor of Economics, Department of Health Policy and Management, Harvard School of Public Health, USA

Prof. Hsaio's paper made use of examples from about 12 countries that are in various stages of NHI implementation. Success stories include Canada, Taiwan, Turkey and Estonia. Other examples include countries which are moving more slowly, such as Brazil, Ghana, Philippines, Ethiopia (PHC only), and Thailand. Some countries have passed laws but have not taken any steps yet, e.g. Cyprus, Kenya, and Egypt. All these examples contain lessons for South Africa.

Global Lesson 1: Insurance coverage is not equal to effective coverage
The NHI needs to provide universal and effective coverage; one reasonable benefit package for everyone; a one fund, one uniform policy framework and one payment system; one purchaser that uses its monopsony (single purchaser) power in negotiations; and scope to allow supplementary private insurance. This monopsony power worries the drug companies but is to be applauded.

Global Lesson 2: Time framework
Global examples show that implementation of NHI took more than 10 years in most of the success stories.

Global Lesson 3: Pillars in implementation.
Legislation has to be introduced in several steps and these depend on three pillars.

a) Build effective services;
b) design the benefit package and know how much it will cost; and
c) ensure appropriate governance (i.e. what level of government).

Legislation must specify: eligible population (will it include refugees or illegal immigrants); benefit package (expensive procedures vs. only PHC); financing (costs, funding sources and tax rates); regulations (providers and private insurance, accreditation and standards, the place of the private sector and regulation, the 'rules of the game' regarding profits); payment (methods and rates, how will money be given to provinces, districts, clinics and doctors; and governance (structure, responsibility accountability).

One example of the legislative implications is whether doctors are salaried or paid per capita. There is evidence that when doctors are paid a salary there is less incentive to work hard and in Turkey doctors were are a basic salary *and* a payment per patient.

Another legislative lesson is that most countries underestimate costs to make NHI politically more acceptable. But this may mean that the system cannot be financed. Major choices have to be made about the payment method: will it be fee for service, capitation, capitation + payment for performance (quality), or case based? Governance issues include whether decisions are taken at central or district level, and the relationship between public and private sectors. The benefit package has to be defined in terms of the range of services covered and the level of cost sharing.

Brazil is a good example of primary healthcare (PHC) improvement though NHI but they have not managed to bring it to hospitals, which are still dominated by the private sector. A common mistake is the failure to recognise that the ministry of health does not usually know how to manage funds as well as Ministries of Labour and Social Security. It is therefore better to create a joint board with some independence from the state, i.e. a parastatal entity.

Global Lesson 4: Major phases in implementation

There are four phases in the implementation of NHI and these are summarised in Figure 1. People want everything without paying much but, as one Chinese politician put it, "the people's need and want is limitless - his job is to make it manageable." Determining coverage is an iterative process looking at the benefit package and its associated cost. This phase needs at least three rounds comparing the package against costs until people have engaged with reality rather than the wish list. Once this is resolved legislation can proceed.

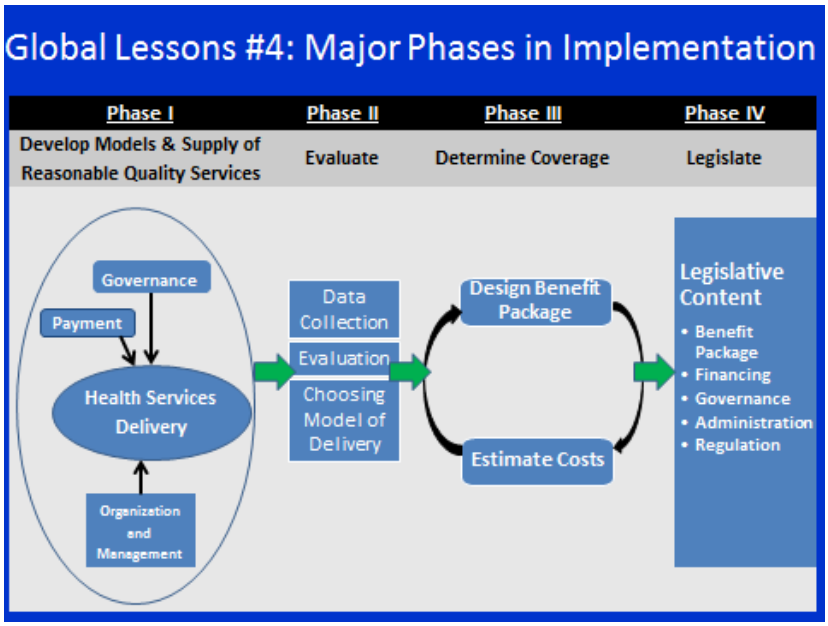

Figure 1 Global Lessons 4: Major phases in NHI implementation.

The practical steps in implementing NHI can be summarised as follows.

1. Establish pilot districts: discover what works and what it costs.
    a. Organize and designate each pilot district to answer certain questions through experimentation.
    b. Provide technical assistance to pilot districts.
2. Create an agency to scientifically monitor and evaluate the pilot districts.
3. Produce information for drafting legislation.
    a. Information on what works and what does not in organizing and managing primary care and other health services.

b. Reliable data and evidence for design benefit package of NHI, estimated costs, and financing scheme.
c. Information on the most effective governance structure and organization.

CANADIAN HEALTH SYSTEM: "A CANADIAN TREASURE"

John King, Executive Vice-President and Chief Administrative Officer, St. Michael's Hospital, Canada; Past Chair, Canadian College of Health Leaders

Healthcare in Canada is funded federally and administered provincially and municipally. Typically, the municipal government provides some public health service delivery such as immunisation. Canada's health outcomes are among the best in the world: life expectancy is 81.2, and infant mortality compares favourably with Sweden. Eighty-five per cent of Canadians ranked the public healthcare system as the most important national asset.

Funding of the Canadian public health system includes corporate income tax, personal income tax, sales tax, lottery proceeds and health premiums. The lottery is a significant contributor to primary healthcare. The public sector covers 70% of healthcare while drugs, home care, dentistry, nursing homes, vision care and some allied health professionals are provided by the private sector. The public sector provides services that are "medically necessary for maintaining health, preventing disease or diagnosing or treating an injury, illness or disability."

There are some regional disparities between provinces and territories because regulations are interpreted and implemented independently. Resource rich provinces can invest more per capita. Although all Canadians have access to care, the system is one of the most expensive in the world, mainly due to salaries and drug costs. There are also long waiting times for non-threatening conditions; for example, waiting times for emergency rooms may be measured in hours but for magnetic resonance imaging it can be months, and for hip and other orthopaedic surgery, years.

Figure 2 Sustainability and future directions in the Canadian healthcare system

The ultimate question is whether the system is sustainable (Figure 2). Costs are increasing while revenue decreases and the question is being asked whether a two tier system has merit. Canada will never go back to a private health system but the private sector may have an increasing role and some private insurance reduce waiting times for all. However, in the UK, the two-tier system has done little to alleviate problems other than for the wealthy.

DISCUSSION

Question (Q): Considering the different ways of remunerating providers, is there a need for some regulation relaxation in the pilot areas to allow more innovation?

Answer (A): The pilot areas are the ideal place to try new ideas.

A: By definition, a pilot should allow regulations to be varied to find out what is wrong with current regulations. In China, sites selected for testing interventions had to agree to relax regulations before being eligible for selection.

Q: How do we integrate public and private in the same areas? Although we can contract-in the private doctors, being forced to work in poor quality public facility causes brain drain from the public sector. In England, eye surgery and orthopaedics are contracted out to private hospitals. You can also grade the public service salaries to be comparable to private. In Canada the law allows doctors to work for profit within not-for-profit hospitals.

Q: Regarding supplementary health care insurance, could you elaborate on the scope of this? What is the impact of such a scheme within the system? There are many private health insurance companies in SA, how will the protests from industry be managed?

A: Other than Canada, I am not aware of any country with a single tier system to cover 100% of the population. E.g. England and Germany have 5-10% of the population not satisfied with public services and people even go abroad to get better services. England leaves about 10% for people who will use private insurance. Singapore allows 25% of hospitals services to be private, which is enough to make the system unstable. Australia has similar problems. We know the tipping point is around 10% or a little higher.

A: There will always be a role for the private sector in the health system. Private centres cover surgery not covered by the benefit plans. Many hospitals have contracted with these facilities to do some of the work, e.g. cataract surgery. Canada is a single payer system and doctors are private corporations and hospitals are private not-for-profit organisations. Canada uses the US to provide the private sector cover that is lacking in Canada. In Canada the public sector is the benchmark – the private system does not pay for the very expensive services like intensive care or services for the homeless.

Comment (C): In the last 5 years we realised that in the public/private mix there is one particular problem and that is how to integrate the services to prevent and treat chronic illness – there is a need for prevention, primary care, secondary, tertiary and rehabilitation, including the medical records. Who actually manages the patient becomes a major issue. I urge you to try to experiment with integrating services for chronic illness.

C: The White Paper for the Transformation of the Health System indicated that there was a need to integrate public and private sectors but this did not materialise. We believe this was because there was no mechanism to insist on the same delivery standards. If all doctors

were paid according to an agreed capitation fee it would be better. Unless we have that kind of system it will be hard to integrate public and private sectors.

Q: Are you going to create a gatekeeper at the primary care level and would people accept this?

A: Fundamental public health should be provided to all – i.e. the basic package of services such as immunisation or safe motherhood. In rural areas you have to rely on public services because the private will not come in to those areas. In cities there will be lots of private suppliers competing with the public sector. An important issue will be to specify what the pilot districts must test.

HEALTH SYSTEM IMPROVEMENT

HUMAN RESOURCES FOR NATIONAL HEALTH INSURANCE

Professor Craig Household, Head of Department of Health, Western Cape

Human resources (HR) are the single most expensive resource and consume about 60% of the health budget. People often say they have a shortage of staff but we should look at the productivity of existing staff. There is poor performance management with a default of 'satisfactory', whereas we should have 10% unsatisfactory, 10% outstanding and 80% satisfactory. In the Western Cape, this would amount to 3,000 employees with unsatisfactory performance that must be addressed. HR is crucial component of NHI for which we must have effective management systems.

The design of the public sector leads to inefficiency and fragmentation and we need to decentralise authority and accountability to the health districts or lower. Managers need adequate delegated authority to hire and fire and purchase within an annual operational plan.

The 'Strategic HR Framework' gives prominence to performance management, which involves supervision, support, productivity, recognition, and reward. The people management or 'human' component of HR, involves motivation, values, engagement, retention, employee wellness and talent management. Staff attitudes and behaviour are important and we need to recognise the numbness and insensitivity at the coal face that is a result of dealing with large numbers of patients on a daily basis. To change these attitudes we need to revitalise the human spirit of staff.

In the Western Cape this has been done through a values-based approach and the organisational culture has to be changed from formal rules which will achieve compliance, standardization and average performance, to building commitment to values and norms which will lead to superior performance and service delivery. There is a need for common set of principles and values within the system to be funded by the NHI.

A Work Force Planning Model has been used to estimate the demand for services at every level and a Workload Calculator (similar to WHO-WISN) calculates the required staff numbers. The current reality and affordability are then used as moderators and staff establishments are further refined to allow for specific local circumstances. Although there are challenges filling posts in rural areas, state of the art infrastructure attracts people to the public sector. For example, the 300 posts advertised for the new Khayelitsha hospital attracted 72,000 applications.

Performance management is not being optimally used in the public sector. The emphasis is individual-based rather than team-based and there is insufficient use of non-monetary rewards. More than 85% of managers tend to assume people resign for more money or better opportunities, whereas more than 80% of employees say it was poor management practices or toxic cultures that drove them out.[4] There is not enough use of non-monetary rewards and payment of bonuses has a short-lived effect.

PRACTICAL ASPECTS OF IMPLEMENTING NHI IN THE HEALTH SERVICE PROVISION AT PROVINCIAL LEVEL: THE CASE OF THE NORTH WEST PROVINCE

Dr. Uma Nagpal, Chief Director Dr. Kenneth Kaunda District (Pilot District for NHI), North West Province

The first five years of the NHI will include piloting and strengthening the health system in the following areas:

- management of health facilities and health districts;
- quality improvement;
- infrastructure development;
- medical devices including equipment;
- human resources planning, development and management; and
- information management and systems support.

North West undertook various activities to improve health facilities. Visits were made to KwaZulu Natal to see their Community Health Worker (CHW) programme; a visit to Thailand helped to build implementation capacity; and 187 officials were trained in relevant skills (infection control, programme management, public finance management, customer care, geographic information systems, cleaning, etc). Other initiatives included: maternal and child health (human milk bank, kangaroo mother care, a maternal waiting home); CHW training; primary health care re-engineering in eight wards; district specialist teams; school health services in all Q1 and Q2 schools; and facility improvement teams established at provincial and district level. The latter are prioritizing infrastructure and service delivery challenges with the national team and improvement in some areas has already been noted.

Data capturers have been appointed in every clinic and information and technology needs are being addressed. Decentralization to district level has been achieved and District Chief Directors have been given HR, financial and supply chain management delegations. The sub-district managers and facility managers are being trained to build capacity for further decentralization with the aim of running each facility as a cost centre. Staff are being rewarded for good work to improve staff morale and staff attitude. This takes the form of the Minister's appreciation being aired on radio and awards given by the MEC for Health, the hospital CEO etc.

Patient and staff satisfaction surveys are routinely conducted as are clinical audits and all facilities have undergone self-assessment for compliance with the National Core Standards. Doctor coverage to PHC facilities has been increased from once a week to twice a week to boost staff morale. Private sector GPs have been contacted to contract them for providing services in the PHC clinics.

[4] Branham, L, 2005. The 7 Hidden Reasons Employees Leave: How to Recognize the Subtle Signs and Act Before It's Too Late.

Lessons learnt

- The Pilot Districts need to be analysed for their strengths and well documented.
- A centralized system, e.g. in the appointment of hospital CEOs, results in delays.
    - Decentralization, where there is capacity, will improve efficiency.
- Private hospitals wish to get more clarity on how they can participate. The Green paper is not very specific on this issue.
- More robust engagement with the private sector will allay fears and involve them in service delivery at PHC level.
- Public servants think NHI will make their pockets lighter for insurance they may not need. The issue of social solidarity has not been driven strongly enough.
- National Health Insurance has brought new enthusiasm among health workers .

QUALITY OF HEALTHCARE SERVICES IN THE FREE STATE: LOW HANGING FRUITS

Prepared by Dr. Sipho Kabane, Head of the Department of Health, Free State Province, Presented by Dr. Aquina Thulare

According to the Green Paper, no facility, whether public or private, will be guaranteed participation in NHI. Only those facilities that comply with a minimum set of quality norms and standards will be accredited. In the Free State, priority is being given to the implementation of a Patient Safety Management System and the Facility Improvement Project.

Patient safety work began in 2008 with an Advanced Incident Management System (AIMS)[5] and an incident reporting system study. AIMS allowed the move from a paper based system to telephonic reporting. Anonymous reporting was encouraged by providing an 0800 (free) number and a guarantee of safety for 'whistle blowers' while non-reporting of an incident could be construed as misconduct. The study was undertaken in 24 hospitals over 9 months: 12 using the new reporting system and 12 controls using the old paper-based system. At baseline the adverse event reporting was 10% which was comparable to a developed country setting but this was considered to be too low for a high burden of disease scenario with shortages of personnel and other resources.

Incident types included adverse events, hazards, near miss and occupational injuries. Associated factors were human error, system, and duty of care incidents. System issues included personnel, equipment, facility management, organisational and other factors. Duty of Care incidents included unprofessional behaviour, reckless and risky acts, violations, sub-standard care and natural progression of disease.

Many more incidents were reported with the new system, with more than 700 reports compared to only three in the control sites. The rates of reporting continued to increase over the next two years. A comparison of the paper-based system and AIMS shows how the focus moved from one of identifying misconduct and negligence to root cause analysis and a prevention focus.

The second intervention was a Facility Improvement Project. Serious challenges were identified by the audit but many were easy to address and could be considered 'quick wins'. Basic repairs were done, rubbish was cleared, unused new equipment was put to use. Often

[5] The Advanced Incident Management System (AIMS) was developed in Australia by Patient Safety International. http://www.cohsasa.co.za/articles/patient-safety-and-aims-advanced-incident-management-system-update

the shortcomings were not because of a lack of resources but a lack of effective management. These quick wins are important but should not distract from the major tasks that remain to be done. Constant and systematic supervision of health facilities in South Africa will be the cornerstone that makes or breaks interventions to improve quality of care. These two interventions demonstrate the quick gains that are achievable in terms of improving the overall quality of health care services in the Free State.

DISCUSSION

Q: What about the improvement of the administration such as time taken to get an appointment?
A: Quality levels are being addressed at all levels in the North West. We used to take a long time to advertise and fill posts. This has now been reduced.

Q: How do you envision facilities will receive funds in the NHI and how will this fit with the existing system?
A: Unit managers will have a budget and can decide what to spend it on. They will get the usual three quotations and send them to the sub-district office which will place the orders. There will be a certain standardisation of equipment but we are trying to improve facility level management skills. One of the issues with centralised buying is that equipment purchased is sometimes not suitable for the facility that has to use it.

A: Funding is from the 'Equitable Share' and 'Conditional Grants', i.e. national funds and smaller local funds. The NHI proposal is that there is a common central fund and a provider-contractor relationship allowing recovery from patients.

A: The main driver of costs is the doctor or nurse and if they have responsibility for spending they will manage costs better. If an expense is in the budget then it should be managed at the lower level. It is difficult to let go of control centrally but ultimately it provides more control.

A: Some of the interventions identified through the conditional grant were for strengthening HR management and delegation.

Q: Quality and efficiency are totally connected; are you considering a national body that will share best practices? You need to decentralise to the lowest level possible to get people to be accountable for the funds they are using.

A: The Office for Health Standards Compliance will advise on norms and standards and provide an ombuds function.

C: There is a bureaucratic system in place which has to be broken. Where do you decentralise to and how will you hold them accountable if they do not perform? To what extent are your appointments independent if people are politically connected? If you have some good practices – do you share that systematically? Can you compare the waiting times at different clinics? If you can create competition within government facilities it will promote mutual learning.

A: Political connections are very real but poor performance needs to be rooted out. We need a professional and apolitical public service.

A: We don't share good practice enough. Even in provinces with poor performance there are islands of excellence and these need to be highlighted. Senior managers should be encouraged to mentor and train other managers.

A: A sub-committee of the Ministerial Advisory Committee needs to take note of this issue to ensure that comparisons across provinces and districts can be done. It would be interesting to see how the top health professionals are chosen in other countries.

Q: How are the community-based services integrated into the health system, because payments to CHWs are often very low?

A: Integration of CHWs is quite advanced in the North West. They used to be volunteers but now get a stipend and often use the position as a stepping stone to another job. Any CHW with matric could be given 52 days training and get a certificate of competence. They can get R1,500 per month but this could be increased to R3,000. They will be trained to use computers and can be given priority for nursing training or other roles, such as administration, in the formal health services.

C: CHWs mostly work 4 hours a day in the Western Cape and are managed from the local clinic. Patients are discharged into their care. We pay them R1,800 per month.

C: FIT Sedibeng District identified some clinics that are best practice cases. We use them as a benchmark for others that are not performing so well. Best practice pharmacists are used to assist others to improve.

Q: Can the SA Society of Physiotherapy offer support in the pilot sites and how do we go about that? We need to create posts for physiotherapists in the public sector. They are doing their compulsory service and often want to stay on afterwards.

A: There is a lack of health professionals and even when they are trained we cannot use them. This needs better HR planning so that the ratios are more appropriate. Even the occupation specific dispensation is biased towards doctors and nurses.

OPPORTUNITIES AND CHALLENGES FOR PREPARING FOR NHI IMPLEMENTATION THROUGH PILOTS: WARD BASED AGENTS

DR. SIBONGILE ZUNGU, HEAD OF DEPARTMENT OF HEALTH, KWAZULU-NATAL

In KwaZulu Natal a ward-based health care model has been adopted because the ward is the primary place for delivery of services. At each clinic there is a Clinic Operations Team (providing basic clinic services), a School Health Team and a Family Health Team. All government interventions are routed through a 'war room' where the ward councillor or the Nkosi is part of a multi-departmental, community partnership approach. Care at the household level is provided by Community Care Givers (CCG).

The Village Post or Weighing Post offers community consultation and support; health promotion and prevention (including environmental health promotion); HIV counselling and testing and other counselling and support services; wellness services (growth monitoring and basic development screening); basic parental information; basic screening for chronic conditions (within the scope of practice of CCGs); oral rehydration; condom distribution;

collection of chronic medications; and distribution of home based care kits. The Village Post is also a service delivery point for Home Affairs, and the SA Social Security Agency (SASSA).

The School Health Team is ward-based and linked to the PHC clinic. It comprises a Professional Nurse, Enrolled Nursing Assistant and an Auxiliary Officer. Their roles include health promotion and education, screening, sexual and reproductive health, HIV counselling and testing (HCT) and capacity building.

The Family Health Team comprises one Professional Nurse (the team leader), three Enrolled nurses, a CCG facilitator/trainer and at least 15 CCGs. There is a ratio of one CCG for every 45-60 households. The Professional Nurse supervises the teams, conducts house visits on referral from CCGs, undertakes community consultations and diagnosis, participates in the war room meetings and holds weekly meetings with CCGs.

The roles of the CCG include household and community profiling, health promotion, disease prevention, treatment adherence support, linking community members to resources, defaulter tracing, making appropriate referrals and distribution of condoms.

District Clinical Specialist Teams should include the following: obstetrician and gynaecologist, paediatrician, family physician, advanced midwife, paediatric nurse, PHC nurse specialist and an anaesthetist. Their roles include education and training of health professionals, supervisors and managers on maternal, child and women's health issues. They also ensure provision of the various packages of care, e.g. Essential Steps for Managing Obstetric Emergencies (ESMOE), Basic Antenatal Care (BANC), and KwaZulu Natal Initiative for New-born Care (KINC). They also act as facilitator for the provision of infrastructure, equipment and staffing within the district, help ensure effective and efficient utilisation of resources, and participate in the development of strategic, operational and business plans. Their last function is to undertake auditing, monitoring and evaluation. They are responsible for reporting on and review of maternal and perinatal (child) deaths, establishing child and maternal forums at all levels, and establishing clinical and audit teams within the district.

There are three pilot districts in KZN: Amajuba, Umgungundlovu, Umzinyathi, covering a total population of just over 2 million. There are 21 School Health teams, 11 District Clinical Specialist teams (although some are incomplete) and 7 Family Health teams.

Another initiative is Operation Sukuma Sakhe (OSS) which aims to promote human values, fight poverty, crime, diseases, deprivation and social ills, and ensure moral regeneration through effective partnerships. Partnerships include civil society, development partners, communities and government departments.

Challenges to implementation include HR shortages, ageing infrastructure, unequal physical access, urbanisation and urban poverty and the quadruple disease burden. The worst districts have 40-60% vacant medical officer posts. This is being addressed by sending students to Cuba for a medical degree which emphasises public health. Sixty-three Cuban qualified doctors have commenced work and another 100 are in training. Mid-level workers are also being trained in the Eastern Cape and some CCGs are being channelled into the formal professions such as nursing.

DISCUSSION

Q: Is it true that some District Specialist teams cannot get all the staff required?

A: We have not been able to recruit doctors to Amajuba after two rounds of advertising and are considering combining 2 or 3 districts with a doctor serving several districts.

Q: It is encouraging to see the integrated approach at ward level. Has any thought been given to using mobile health services, for example, is M-Health and E-Health being considered?

A: We do have mobile services but the vehicles are old and cannot provide a proper service. We are looking at revitalising the mobile health service using proper consulting rooms and professional nurses. The new vehicles would have telemedicine to support the team. It is not available yet but is being procured.

As for mobile info for CCGs, a mobile system is being piloted in KZN which allows information to be transmitted using cell phones to link to the health facility and as part of the referral system. The technology works but there are issues of sustainability and the costs of hand sets. Another approach is being explored which is cheaper and a team from CSIR is also working on information collection at household level.

Q: In the School Health teams, what is being done about teen pregnancy?

A: Operation Sekuma Sakhe includes Youth Ambassadors who are peer educators that deal with teenage pregnancy, substance abuse or whatever is a problem in the community. They get basic training in health promotion and disease prevention and nutrition advisor training is given to some. Because they work in a ward they have local knowledge, including information of use to other departments, which can be passed on through the war room to be resolved.

Q: The intersectoral collaboration concept is good. Do different sectors decide what to provide or does the community decide what they need; in other words, is it top down or bottom up?

A: Heads of department have to advocate for issues that have been raised by communities and take these to other departments if necessary. Thus issues raised from the bottom are dealt with from the top down.

C: NDOH is working on mobile clinics for complete service provision (including dentistry) for each NHI district. Currently the mobile clinic is a four tonne truck but later it will be on 4x4 vehicles. There are also plans to use the same vehicle to do school health during the week and other activities, e.g. circumcision, at the weekend.

Q: How is the community-based team linked to the treatment of illnesses? Who deals with malaria and diarrhoea? Does the CCG also treat patients or only handle health promotion?

A: There is a therapeutic element in the Family Health Team but the bulk of the work is referred to the clinic. They identify problems at the household level but treatment takes place at the clinic or mobile, if there is one.

KEYNOTE ADDRESS BY THE DIRECTOR GENERAL

MS PRECIOUS MATSOSO, DIRECTOR GENERAL, NATIONAL DEPARTMENT OF HEALTH

The Director General stated that the theme of the seminar is very relevant to NDOH because it will inform how to speed up implementation and push some of the issues in the Green Paper forward. A report has just been written on the first 16 months of implementation of NHI and what is learnt from this seminar can be used over the next 16-18 months.

South Africa has embarked upon a process of implementing NHI with clear commitment from the Executive Authority to ensure successful implementation. The focus is on achieving equity, reducing fragmentation and ensuring that decentralization is achieved. Lessons learnt have to be implemented in the context of the burden of disease and the socio-economic setting.

Prof. Hsiao warned us that we cannot achieve equity, avoid fragmentation and achieve social justice overnight. We need to restore the confidence of the public. The initial response from was that NHI would be too expensive but for anyone using public facilities, things have to change. Changes have to be made but we must not repeat the mistakes of other countries and we cannot leapfrog the processes required. The example from Canada has evolved with different models in different provinces and it has produced a system that works well. Ghana and Brazil were less successful as they rushed the process.

In the World Health Assembly nearly all health ministers endorsed universal coverage and a United Nations resolution on universal coverage is proposed for 2014. Effective universal coverage ensures equity, fairness and social justice, which are principles that South Africa espouses. The system must not leave room for corruption or wastage because we cannot afford this.

The existing model uses outreach programmes but the new model will place services there all the time. However, when specialists move to districts we must not create a problem at the district hospital. Brazil uses a 'PHC agents' model, in SA they will be ward based.

The School Health Programme is important and we need to consider the costs of maintaining and replacing the vans. In some provinces we need 4x4s. In the Northern Cape some of the vans had large distances to travel to schools and we looked into what other services could be delivered at the same time.

As far as accreditation is concerned, the Office of Heath Standards Compliance (OHSC) was approved by the National Council of Provinces this past week. The first sitting of the National Assembly in the New Year will pass the bill into law. Facility Improvement Teams are already doing preparatory work that will allow facilities to be ready for inspectors. Currently inspectors are 'very nice' but once the law is passed they will not be so nice. There needs to be improved leadership and management in hospitals, districts and offices.

We have audited over 4000 health facilities in the country and must improve the information system for both patient data and human resources. We went back to a proper need norms analysis for all facilities to determine the numbers of doctors, nurses and others required. At district level governance structures are being reviewed. Non-communicable diseases are another issue and we are looking at creating a Public Health Commission to deliver health promotion to address this.

COSTING, PROCUREMENT AND REIMBURSEMENT

NHI COSTING MODEL: METHODOLOGY AND ASSUMPTIONS

Mr Mark Claassen, NHI Ministerial Advisory Committee (MAC) member

The rationale for the NHI costing is that insurance is always location specific and information from one NHI system cannot necessarily be extrapolated to other places. A key issue was that a single payer system, which is government run, differs fundamentally from commercial insurance schemes and therefore previous costings may not have been realistic.

The original report was delivered 18 months ago and debates have moved on already. All funding models have their own economic implications; for example, if more of the budget goes to health this will have implications for the sectors where the funds come from. Another consideration is that the cost of NHI is not over and above existing health system costs but what NHI will cost over and above the current health budget.

The NHI 'Costing module' took account of direct healthcare cost, NHI operational cost, NHI implementation cost and the various cost drivers. The NHI 'Funding module' included assessment of indirect economic impact and the revenue model. One of the factors to be considered included that some hospital infrastructure is covered by the Department of Public Works.

Various population projections were used (e.g. Actuarial Society of South Africa's models, Statistics South Africa and others). The population of insured individuals was assumed to decrease by up to 50% per annum over the NHI implementation period (2012-2025) because users will be unwilling or find it unnecessary to pay for services twice (through taxation and insurance).

For the non-AIDS related healthcare services, unit costs under NHI were estimated using current unit costs in the public sector with adjustments made for improving quality in line with estimates made by the Development Bank of Southern Africa. Specifically, the model assumed that ultimate unit costs under NHI will be 40% higher than current unit costs, in 2010 monetary terms. It was assumed that this 40% increase would be phased in over 10 years.

Utilisation estimates were based on averages of "affordable" utilisation rates from the SHIELD[6] model and increases in utilisation rates were based on other countries' experiences. Steadily increasing utilisation is expected over the NHI implementation period but PHC rates are assumed to increase rapidly over the first two years. It is important to compare these assumptions against a detailed implementation plan.

For the AIDS-related healthcare services, the costing module accepted as inputs total costs in each future year for the following line items:

- Antiretroviral therapy clinic visits;
- Antiretroviral drug costs;
- The cost of laboratory testing;
- Inpatient costs; and
- TB treatment costs.

[6] Strategies for Health Insurance for Equity in Less Developed Countries (SHIELD) http://heu-uct.org.za/research/projects/shield-project/

The number of PHC facilities required to service the entire population was calculated using a Community Health Centre (CHC) utilisation rate of 3.53 per person per year. This showed that 460 more CHCs and 87 more PHC clinics would be needed at a cost of R30.3 million and R7.0 million respectively.

For hospitals it was assumed that 30% of hospital beds will be provided by accredited private sector hospitals. The calculations showed that the following additional hospital beds are required:

- 0 Level III hospital beds;
- 1,603 Level II additional hospital beds;
- 41,412 Level I additional hospital beds

Various studies were used to support these calculations and the costs would be R1.5m, R1.75m and R2m per bed, respectively for levels I, II and III hospitals. This includes the land, building and standard equipment.

Additional training costs allowed for staff working in both the public and private sectors and were based on information in the public domain.

Accreditation costs were calculated using a crude allowance for the costs of initial accreditation and licensing of healthcare providers. The model assumed all costs in the private sector would be absorbed by the healthcare providers. The total accreditation cost obtained through making the various assumptions is R953 million.

Other assumptions were:

- Implementation period assumed to be 14 years.
- General Inflation +5.8%
- NHI medical inflation +2%
- All costs were modelled to be VAT neutral.

NHI operational costs were assumed to increase linearly from 0.5% in 2012 to 3% of direct healthcare costs by 2025.

This costing drew on both local and international expertise and was referred back to MAC for further discussion. PricewaterhouseCoopers independently reviewed the model and other stakeholders, including a sizeable team from Treasury, were involved in workshops.

DISCUSSION

Comment

At the conclusion of this paper Dr. Olive Shisana pointed out that this costing has to be updated in line with various changes that have taken place. The latest census shows an increased population and one that is ageing; medical scheme membership has increased; a revised PHC model is in place; and there are new training targets. Morbidity and mortality from AIDS is reducing due to ARV treatment and therefore disease burden is dropping. Training of nurses needs revision and there has to be more training on management. These factors have not been included in the model yet and a decision is still to be taken as to whether private sector participation will be VAT exempt.

Q: Thanks for providing transparency of the costing model. It appears that the allocation towards management and costs of medical schemes would be reduced and rationalised. The Road Accident Fund and Employees Insurance Funds run along similar lines to a single payer

system but are not noted for their efficiency. Are we adequately factoring in the size and scale of a new independent authority, the information technology and costs of staffing etc?

A: The administration costs are where the least work has been done because we did not know how it would look. There is a vast cost differential between group payments and individual beneficiaries. The patient records and transfer of information are still in an early stage of development. Most other schemes found administration costs of 3-4%. The principles are probably right but the detail may differ – it is similar to the comparison between a retail and a wholesale structure.

Q: The source of unit costs was provincial budgets but much of this data is not actual costs but is based on Treasury data on expenditure, which is often far higher than the cost should be at the point of delivery. Another issue is Trade-Related Aspects of Intellectual Property Rights (TRIPS) price savings? Is there a sensitivity analysis with different cost scenarios? Can independent organisations like section 27 get access to the data to try alternative cost models?

A: Costs were calculated by province, age, sex and medical intervention. We had generous access to Western Cape records which would compare reasonably well with a preliminary success of NHI. We did build in some conservatism and we think the costs and utilisation rates are reasonable. In terms of sensitivity analysis, we did a lot of this. There has been fair openness to comments from outside organisations and if questions are posed these can be considered.

C: There is general acceptance that the structure will be similar to SARS but accountable to the Minister of Health. Key responsibilities identified include the benefit package, monitoring and evaluation, and risk. The committee continues to look at how it is done elsewhere and they are identifying skills that are needed to manage the fund.

Q: Did the modelling provide what health services should cost in the country irrespective of the NHI model in place?

A: We have adopted a central fund model but have not worked out how the money will be transferred and the administrative burden that this will cause. SARS is very efficient but is probably the best example, others are less so.

A: This work began several years ago, so the modelling relates to delivery of a reasonable medical package to the population and what this would cost. We might consider other models in light of new information but the cost differences would be marginal.

C: Speaking as an actuary, you have done a very thorough job by international standards and comprehensive work on implementation costs. But cost estimation is the key to the success or failure of NHI in terms of sustainability. You can conceptualise the system but in cost estimation you are trying to quantify the future. You are building up the supply but do not know what the demand will be for this new service. SHIELD is a model and may not be representative of SA. I recommend that this is where you should use the pilot studies to look at the available services and their costs by different provinces and what the utilisation rates become. Use the pilot to inform and provide evidence for the next round of cost estimation.

A: We are going to do a costing at the pilot sites.

C: A challenge for NHI is the clinical management and systems as a whole. John King said the public sector should be at the forefront but the private sector has operations management expertise which should also be used. Part of the success of the Western Cape model is because of the workforce planning model and for most of the private sector this model works in developing operational effectiveness and there should be structured ways in making use of this knowledge.

COSTING, PROCUREMENT AND REIMBURSEMENT (CONTINUED)

PROCUREMENT OF GOODS UNDER A UNIVERSAL COVERAGE SYSTEM

Prof. Charles Hongoro, NHI Ministerial Advisory Committee (MAC) member

Some of the prerequisites of NHI have already been mentioned but another aspect is the procurement of goods which will have major implications on costs.

A substantial list of procurement challenges has been identified. These include:

- no defined national health products budget, leading to poor financial planning and accountability;
- unnecessary and costly buy-outs;
- poor quantification and forecasting;
- failures within the tender process leading to stock-outs, and price adjustments during the tender period;
- product selection processes unaligned to treatment guidelines, varying access to medicines across provinces, inappropriate use of medicines outside of the tender process;
- most provincial depots are inefficient, do not comply with policies and procedures and are poorly resourced;
- outdated information systems and lack of regular data monitoring;
- late payment of suppliers, inappropriate fees paid to contractors and varying handling fees charged for the same product across provinces;
- high levels of vacancies from depot level up to a national cluster level;
- absence of national policy on procurement and management of high cost equipment and devices; and
- a risk monitoring unit incapable of supplying the required services.

A review of procurement in Australia, Canada, England, France, Germany, Ghana, New Zealand, Spain, Sweden and Taiwan was completed. These countries have a range of systems including NHI, National Health Service, Social Health Insurance, Medicare and mixed types. The analysis focused on product selection, pricing and reimbursement, tenders and procurement.

The use of a national Health Technology Assessment body to advise on selection and reimbursement of products is widespread. Medicines are often handled separately to medical devices and equipment, with much lower levels of control and management over devices and equipment. Increasingly, countries are becoming aware of the need for stricter controls over utilisation and pricing of devices and technologies. Most countries employ an essential drugs list.

A central authority responsible for procurement of pharmaceuticals is worth having which would arrange tenders and contracts on behalf of provinces. National health insurance bodies enter into negotiations with the manufacturers and suppliers to determine a price for health goods. The use of e-tenders or e-procurement processes is becoming widespread and should be considered for use in the South African system.

Co-payments for medicines apply in most countries with exemptions based on the disease category or ability to pay. A measure such as the single exit price (SEP) for pharmaceuticals potentially reduces costs but providers may look at other service areas to make up for their losses. Most countries use reference pricing as part of their reimbursement list.

The rationale for central procurement of health products includes the fact that there is an immense need for systems strengthening; economies of scale are possible; and greater commodity security and more reliable distribution can be ensured.

The proposed system includes manufacturers delivering directly to health facilities although the functioning of existing depots has to be reviewed. A Central Pharmaceutical Procurement Authority would make use of various committees to provide the necessary intelligence. The Central Procurement Authority would be responsible for managing Financial Allocations and procurement contracts; determine a National Procurement List; provide oversight over pharmaceuticals and equipment expenditure in tertiary institutions; establish a Unit for Price Monitoring and Risk Analysis (including corruption and collusive practices); and coordinate and manage donor funding and donations.

It makes economic sense to introduce central procurement for high cost items (e.g. ARV tenders). Districts and facilities (e.g. hospitals) need to operate as cost centres and there should be a national health products catalogue. Purchasing goods against national tenders by accredited facilities will increase reliability of product supply.

PROVIDER PAYMENT INNOVATION UNDER A SINGLE PAYER SYSTEM: TAIWAN EXPERIENCE

Prof. Rachel Lu, Dean, Chang Gung University, Taiwan

The NHI system in Taiwan has been described as “a car, with parts imported from countries around the world but domestically made in Taiwan” (Hong-Jen Chang, former CEO of Bureau of NHI, Taiwan). In other words, Taiwan has imported ideas from around the world and adapted them to its own situation.

Taiwan has almost universal health care coverage (99%) through a compulsory social insurance scheme which is financed by a payroll tax plus 25.6% in government subsidies. There is a single payer approach through the bureau of NHI which has been a government agency since 2010, prior to which it was a parastatal.

There is complete freedom of choice about which facility to attend but there may be a small co-payment if people go directly to hospital. The administration system is efficient because of the uniform schedule and claim filing and the administration cost is covered separately by government (1.51% of the total medical bill).

Despite having universal coverage, private insurance has been increasing since the late 1990s (14.9% of national health expenditure in 2010) and is used to improve amenities. The package is combined with life insurance and you cannot buy medical insurance on its own.

Progressivity indices[7] show that social insurance was proportionally distributed between rich and poor from 2006 to 2009 and out of pocket payments proportionally distributed from 2008 to 2010.

NHI was made possible by several economic forces which included the miraculous economic growth during the 1980s, relatively modest health expenditure (4.3% of GDP in 1987) and a trivial private health insurance market. Political forces also played an important role and social welfare programmes arose as a response to increased demand for better sharing of resources and power across the entire population.

A remaining challenge is financial insolvency. Since 1998 premium revenue fell behind and by April 2010 a premium increase had to be introduced to cover the deficit. From 2013 a dual track premium system is being introduced. This consists of 4.9% tax based on payroll and a supplementary premium of 2% based on non-payroll income.

There have been some unintended system responses. There are now more larger hospitals because the payment schedule benefits hospitals with a higher accreditation level. As many as 300 smaller district hospitals have closed down while the number of clinics has almost doubled. There is overuse of the resources with 15 outpatient department visits per year by the insured and some 'futile care'.

DISCUSSION

Q: You did not mention any preventive medicine in communities in Taiwan; does this exist?

A: It is not provided by the Bureau of NHI but is funded separately and uses NHI facilities.

C: Medical schemes here seem to be worried about their future but in Taiwan they actually grew because of increasing supplementary coverage.

A: If NHI covers everything you have more disposable income and the extra cash is used to buy private health insurance. More of the self-pay items are being covered by insurance.

Q: Why was moving from a parastatal to a government agency a problem?

A: The parastatal was initially to avoid political interference and gave greater freedom to appoint staff. The quality of work is thought to be declining now that it is a government agency.

Q: Can you comment on the appropriateness and efficiency of the capitation system. What implications do you think there are for SA with a dual funding system? The capitation that you use for reimbursements – how has the ageing profile affected this?

A: There is no data on this yet because it has only just been launched. If you don't control choice there is no sense in having capitation.

C: It appears that the issue of political leadership is critical – you must have a political champion. Timing is crucial and you have to do the homework before begin. We need to

[7] Progressive taxes attempt to reduce the tax incidence of people with a lower ability-to-pay, as they shift the incidence increasingly to those with a higher ability-to-pay.

build in cost containment measures and improve quality of care. We need to pilot and experiment because no one model will be perfect at the beginning.

POSSIBLE PROVIDER PAYMENT MECHANISMS FOR SOUTH AFRICA

Prof. Di McIntyre, NHI Ministerial Advisory Committee (MAC) member

The current payment context in the public sector relies on line item budgets; in the private sector it is largely fee-for-service and fees are not fixed. Neither public nor private providers are *active* purchasers but are *passive* transferors of funds, i.e. medical schemes merely pay the bills that come to them.

In the future a public entity will be the single *active* purchaser and will purchase from public and private providers on the same terms. The more important part of the costing is to use the pilot districts to help the NHI fund, NDOH and the Ministry of Health negotiate with Treasury for adequate resources. International lessons have taught us that fee-for-service and line-item budgets are the least desirable and are best avoided as the main provider payment mechanism because cost containment will be a problem.

A potential provider payment mechanism for PHC is a global budget allocated to the district, based on risk-adjusted capitation. To make the necessary decisions we need more information on the cost of comprehensive PHC services and the demographic composition of the population in districts and their epidemiological profile, especially for chronic conditions.

Payment for performance (P4P) with some fee-for-service is another option but the *evidence* of impact of this mechanism is very weak. Where directed at specific services, such as immunisations, the services that are not part of P4P tend to be neglected. Some countries reward low referrals and diagnostic tests but this can lead to under-servicing, although adherence to standard treatment guidelines (e.g. for referrals, diagnostic tests and prescribing) could help here.

For hospital services, the objectives of provider payment are efficient provision of quality services, not funding facilities but services for patients in need, and case-based payments, e.g. Diagnosis-Related Groups (DRGs). Initially these were used as a guide to determine global budgets based on the average cost per case (for specific conditions) in the average hospital.

In addition to the main payment mechanisms, there can be a range of other provider payment arrangements, e.g. sessional appointments (pro-rata of full package), price and volume contracts delivering a specified quantity of particular services, such as high cost diagnostics, and specific surgical procedures.

Some of the associated issues for deciding on appropriate payment mechanisms for NHI include: steps to level the playing field, e.g. VAT; greater management authority for public hospitals and districts; an urgent need for better information systems (including demographics, diagnostic and procedure codes); monitoring quality of care; and accountability in terms of performance.

In conclusion, the key issues are: preparation (information, management authority); the mix of payment mechanisms, which can be refined over time; and the phasing in of the main payment mechanisms.

SUSTAINING NHI

CORRUPTION IN HEALTH CARE: HOW TO ROOT IT OUT

Dr. William Savedoff, Senior Fellow, Centre for Global Development, Washington DC, USA

Corruption is a problem caused by *people* and the main solution is *people*. If everyone spent time only working out what they could get for themselves then society would not function.

Health sector corruption usually falls into three categories: crimes against patients; crimes involving public funds; and abuse of power. Strategies to combat corruption also usually fall in three categories: broad governance reforms; sector-specific prevention; and sector-specific investigation.

Some examples of corruption are the inflation of small jobs; corruption in contracts (bribes or jobs for pals); using public resources for personal use; physician over-billing; under-service (absenteeism) or over-service (doing things that are not necessary); influence on procurement decision-makers (bribes) and embezzlement of major funds.

However, it is sometime difficult to tell whether one is dealing with corruption or merely inefficiency. Health systems regularly provide unnecessary care, the wrong care, or avoidable care. The question is then 'how large is the waste, mismanagement or lax administration?' In the US, estimates range from 10% fraud in Medicare to as much as 30% unnecessary or wrong care. Other examples include non-merit hiring and promotion which is very destructive for the health system. 'Regulatory capture' can occur when companies seek to influence those responsible for placing drugs on the essential drugs list and there can be other kickbacks in procurement or the supply of counterfeit drugs. Embezzlement occurs and some organisations are plagued by 'ghost employees', i.e. salaries paid to non-existent employees.

The scale of this 'leakage' of resources can be massive. In Ghana, 80% of the federal non-salary budget was lost, in Tanzania it was 40%. The 'glass of milk' programme in Peru experienced 71% losses and in Uganda a similar figure (70%) was found with drugs and supplies losses. In some cases the funds may have merely been used for other purposes but nonetheless the impact on the intended interventions will be devastating.

Circulation of staff makes it easier to identify corrupt practices because people are unable to cover their tracks when they move. Positive reinforcement, such as the 'Yellow star' system in Uganda[8] which is based on periodic, unannounced inspections on basic criteria, have been effective. There must be visible consequences for both good and bad behaviour.

The more information you have about performance, the easier it is to control corruption with fewer controls. There are both good and bad examples available. The Dutch Sickness Funds use boards with independent professionals to monitor the performance mandate of the board. The Costa Rican social security institute has autonomy, which makes it hard to control. In Venezuelan hospitals there are no consequences of corruption and non-merit

[8] Uganda's Yellow Star programme. http://www.ugandadish.org/best.shtml

promotion is common. In the Estonian and Chilean system political accountability is very clear. Chile's National Health Fund (FONASA) provides a good example of extensive interlinked accountability mechanisms (see Figure 3). In Bolivia, active Health Boards, comprised of doctors and community representatives, reduced hospital prices by 40%. Prior to the intervention, the prices paid for the same basic consumables varied by almost 400%.

Some of the basic systems for reducing corruption are well known. These include separation of functions such as authorization and payment; paper trails and receipts; public reporting; internal and external audits; data cross-checking; performance audits; and consumer protection and grievance channels. Simply introducing a cash register for payments can make a big difference.

Design affects vulnerability to fraud through the payment systems required. Fee-For Service is vulnerable to up-coding, false claims and invented services. Capitation is vulnerable to invented enrolled persons and failing to report people who leave or die. There are fewer opportunities for exploitation when there is a single payment for 'adult respiratory illness' than if it is distinguished by cause and severity. Yet costs of treatment vary, which calls for decisions to ensure the right balance. There are fewer opportunities when there is one payment schedule for all providers instead of having schedules distinguished by provider class. The same applies when payments are homogeneous for all patients.

When payments are based on simple fee schedules they can be made public, allowing patients to be an additional source of monitoring. With complicated fees and payments, only experts can know if something was charged properly and the grey area between intention to defraud and error expands.

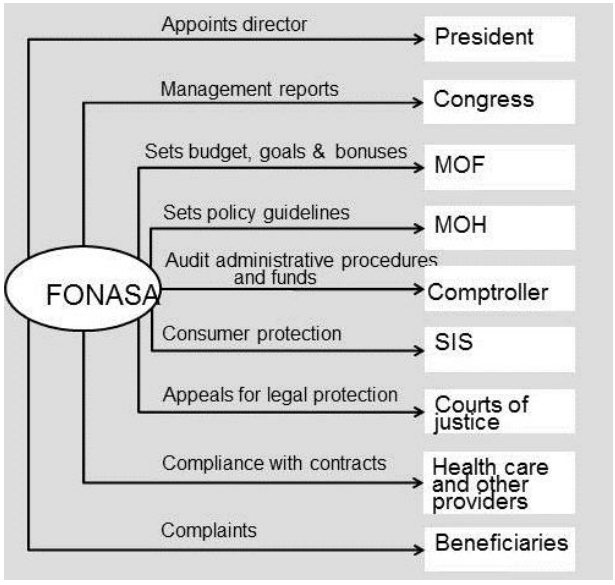

Figure 3 Example of accountability mechanisms in Chile's National Health Fund (FONASA) Source: Bitran et al., Chapter 6 in Savedoff & Gottret (2009)

So what is to be done?

1) Address motivation and social norms;
2) establish accountability for performance, to different actors, with consequences;
3) design reliable and verifiable systems; and

4) establish intelligence units, test discovery mechanisms and know the terrain.

DISCUSSION

C: Facility improvement teams reported a 100% comprehensive PHC package in some districts but they did not have oral health services. We must make sure that we know what we mean by 'Comprehensive PHC.'

A: The NDOH has developed descriptions of what type of services facilities should provide and the staffing levels. It is not the same as a minimum benefit package for defining specific services. International experience is that it is not a good idea to itemise everything that is to be delivered. The descriptions that are available do include things like oral health, optometry and physiotherapy i.e. a comprehensive service. Very few things are explicitly excluded and over time more things can be added.

A review has been done of different provider payment mechanisms and the typical problems that each one has. There is very little empirical evidence for the commonly held belief that under-servicing occurs with capitation. In the UK people have to register but can move if underservicing occurs, people will vote with their feet.

Q: Who is the purchaser? In your risk-adjusted capitation, does this include hospital services or is it just outpatients and PHC?

A: Initially NHI Fund will be the purchaser but providers will be managed at District level. NHI fund would contract with the district for comprehensive PHC services, but there is a lot of debate about whether the district hospitals should be part of this or not.

Q: Are we proposing several mechanisms? You argued that fee-for-service is not the best but this is the norm in Canada. The problem with this mode is that once started, it is hard to change. Capitation works better with low income patients and is less successful for high productivity environments. The salary model leads to lower productivity by doctors and as much as double the number of doctors may be needed.

A: Nothing is set in stone yet – capitation and DRG is in the Green Paper, and some mention of performance, but there is growing recognition that there will not be a single mechanism. Different provider payment mechanisms are likely to be unacceptable in SA for historical reasons. We want to incentivise providers to offer the best services possible. Originally, fee for service was considered bad and capitation good, but now there is more openness to alternatives. We need more piloting because the empirical evidence is so weak.

Q: What thinking is there about appetite for different regulations during the trial period, i.e. fee for service, capitation, group practice, pharmaceutical services etc?

A: This is being looked at but it is not clear how much will be acceptable as yet. The ultimate goal is make sure that providers look at the services they provide and to make sure they use the resources to the best effect.

C: Before compulsory community service for dentists we had a system of contracting private dentists to deliver services to public sector patients. We now have a value system based on how long a procedure takes which is effectively a capitation system and could possibly be used as a pilot.

C: Pilot sites give us the place to test the system; both provider and patient perspective is necessary to really understand the system.

A: Different provinces have different configurations but there is an overall strategy in terms of piloting. Site selection criteria were set out but they must not be homogeneous because we need to look at different settings. Treasury is amenable to more pilots provided they have the necessary information. A revised strategy is likely to be used for the next set of pilot sites.

Q: Capitation is a major driver of cost. Are you looking at bringing down the import costs of products?

A: We did not spend much time on this because NDOH has a task team addressing this.

Q: I am worried about potential monopolous situations where a large international corporation wins a contract and then no local supplier survives. But a year or two later the price may go up because there is no competition.

A: This is a risk and has to be managed through appropriate negotiation at national level. There is discussion about 'split tenders', which can include local companies as well, to ensure commodity security.

C: In countries with a history of public participation is corruption better controlled?

A: There are examples in the education sector where better schools were built when there was community participation. However, with roads, community participation did not make a difference because people did not have the technical knowledge to know whether the materials were adequate or not.

Do countries with a vibrant civil society do better? The problem here is that repressive systems reduce public participation and it is difficult to separate the effect of repression vs. public participation. In South Africa political change has allowed civil society to become more involved.

C: Controlling unauthorised expenditure, which amounts to R3 billion in one province, is going to be difficult. The speaker mentioned buying medicines outside the tender – well, this is not allowed according to Treasury regulations. Expiry of medicines was R14 million in one province. Medical waste management was arranged by hospitals directly but recently this was put out to provincial tender and the cost increased from R400,000 to R1.5 million per month. In another case tenders led to inferior material being purchased than cannot ensure infection control in the hospital. Equipment may be received at a central warehouse with no clinical person competent to check that it is the correct equipment. We need to look into these issues to ensure the right people sit on the committees and with a range of skills. There are courses run by Treasury and others which are essential for people serving on these committees.

A: If a district knows it has a fixed budget and outputs drop, this will be visible to the people and politicians; this helps constrain corruption. The rules and procedures are necessary but they are often not followed. There has to be possibility of detection with consequences. What happens when hospitals purchased outside the rules? We need to ask why outputs per

cost input are so low when benchmarked against other facilities. Both for efficiency and for reducing corruption, having clear, strong, independent evaluation of outputs, is an incredibly strong tool.

POLICY IMPLICATIONS OF THE PRESENTATIONS AND DISCUSSION

The seminar presentations and the ensuing discussion have various implications for policy and planning. The main issues arising are listed below.

- The seminar marked a change in emphasis from conceptualising National Health Insurance to its implementation, practical aspects and learning from other countries' experiences.
- An underlying principle of NHI is that 'health' must be considered a public good and not a commodity to be exploited or left to market forces.
- Public support for NHI is high, even though there are differences by sex, race, employment status, and current health care provider (public or private).
- The majority favours providing NHI over holding down taxes.
- NHI is a popular policy and government can move with confidence to introduce it because it is seen as a way to address inequities in access to quality care.
- A common mistake is the failure to recognise that the ministry of health may not be the best equipped to manage the NHI funds, even though it is the one agency that knows how to provide health services. It is therefore better to create a joint board with some independence from the state, i.e. a parastatal entity.
- The Pilot Districts need to be analysed for their strengths and these aspects must be carefully documented for others to be able to replicate them.
- A dedicated agency to scientifically monitor and evaluate the pilot districts is required as part of NHI implementation.
- Canadians enjoy some of the best healthcare in the world but at high cost and the sustainability of the system is coming under scrutiny. A two-tier system with some private insurance is currently being debated.
- In South Africa, a greater focus is required on improving the management, productivity and performance of staff.
- A centralized system often results in delays; decentralization, where there is capacity, will improve efficiency.
- Decentralising to the lowest level possible helps to make people more accountable for the funds they are using.
- A key issue in the costing analysis was that a single payer system, which is government run, differs fundamentally from commercial insurance schemes and therefore previous costings may not have been realistic.
- Cost estimation is the key to the success or failure of NHI in terms of sustainability. The pilot studies should be used to look at the available services and their costs in different provinces and what the utilisation rates become. Use the pilots to inform and provide evidence for the next round of cost estimation.
- It makes economic sense to introduce central procurement for high cost items (e.g. ARV tenders) and there should be a national health products catalogue.
- Taiwan provides an example of almost universal coverage (99%) achieved in a period of rapid economic growth and strong political will. However, there are challenges in terms of potential insolvency and a dual track premium system (using payroll and non-payroll income) has just been introduced.

- Unintended system responses may occur when NHI is introduced. In Taiwan there has been an expansion of larger (private) hospitals, which have revenue advantages due to their higher accreditation level, and a proliferation of PHC clinics.
- Although NHI is called 'insurance', since it is funded by taxation, the budget limits will be set by Treasury. An important part of the costing process is therefore to work in the pilot districts to help the NHI fund, NDOH and the Ministry of Health negotiate with Treasury for adequate resources.
- International lessons have taught us that fee-for-service and line-item budgets are the least desirable strategies and are best avoided as the main provider payment mechanism because cost containment will be a problem with these.
- Both as a means to improve efficiency and for reducing corruption, having clear, strong, independent evaluation of outputs, is an incredibly strong tool.

APPENDIX 1: PROGRAMME

Practical aspects of implementing a single-payer National Health Insurance (NHI) universal coverage in South Africa: Experiences from other Countries

Date: 6-7 December, 2012

Venue: CSIR Convention Centre, Pretoria

Rapporteur: Prof. John Seager (freelancer)

Chairs: Dr Olive Shisana, NHI Ministerial Advisory Committee (MAC) Chair and
Dr Charles Hongoro, MAC member

DAY 1: 6 DECEMBER 2012	
08:00 - 09:00	Registration, Tea and Coffee
09:00 09:35	**Session 1: Context and background**
09:00 - 09:10	**Welcome** Dr Zweli Mkhize, Premier, KwaZulu-Natal
09:10 - 09:30	**Popular Support for National Health Insurance in South Africa** Dr Olive Shisana, NHI Ministerial Advisory Committee (MAC) Chair and CEO of the HSRC
09:30 – 10:30	**Session 2 – International experiences in implementing NHI**
09:30 - 10:10	**Keynote address: Experiences of countries that have implemented single payer systems: successes and challenges** Dr Bill Hsiao, Professor of Economics, Department of Health Policy and Management, Harvard School of Public Health, USA
10:10 -10:30	**Discussion: Q&A**
10:30 - 11:00	TEA
11:00 – 12:00	**Session 3 - International experiences in implementing NHI**
11:00 - 11:30	**A Canadian Treasure: "The Health System"** John King, Executive Vice-President and Chief Administrative Officer, St. Michael's Hospital, Canada
11:30 - 12:00	**Discussion: Q&A**
12:00 – 13:00	**Session 4 – Health system improvement**
12:00 – 12:30	**Quality of healthcare in the Free State: low hanging fruits** Dr Sipho Kabane, head of the Department of Health (DoH), Free State Province
12:30 -13:00	**Discussion: Q&A**
13:00 - 14:00	Lunch

14:00 – 15:00	**Session 5 – Health system improvement**
14:00 -14:30	**Health service provision at provincial level: the case of the North West** Dr Uma Nagpal, district health services, North West Province
14:30 -15:00	**Discussion: Q&A**
15:00 - 15:30	Tea
15:30 – 16:30	**Session 6 – Health system improvement**
15:30 -16:00	**Opportunities and challenges of preparing for NHI implementation through pilots** Dr S. Zungu, head of Department of Health (DoH), KwaZulu-Natal
16:00 -16:30	**Discussion: Q&A**
16:30 – 17:30	**Session 7 – Health system improvement**
16:30 -17:00	**Human Resources for National Health Insurance** Professor Craig Household, head of Department of Health (DoH), Western Cape
17:00 -17:30	**Discussion: Q&A**
DAY 2: 7 DECEMBER 2012	
09:00 – 10:00	**Session 7 – Costing, procurement and reimbursement**
09:00 - 09:30	**Costing of NHI** Mr Mark Claassen, NHI Ministerial Advisory Committee (MAC) member
09:30 - 10:00	**Discussion: Q&A**
10:00 - 10:30	TEA
10:30 – 11:30	**Session 8 – Costing, procurement and reimbursement**
10:30 - 11:00	**Procurement of goods under the Universal Coverage System** Prof. Charles Hongoro, NHI Ministerial Advisory Committee (MAC) member
11:00 -11:30	**Discussion: Q&A**
11:30 – 12:30	**Session 9 – Costing, procurement and reimbursement**
11:30 - 12:00	**Provider payment innovation under a single payer system: Taiwan experience** Prof. Rachel Lu, dean, Chang Gung University, Taiwan
12:00 -12:30	**Discussion: Q&A**
12:30 – 13:30	**Session 10 – Session 9 – Costing, Procurement and Reimbursement**
12:30 – 13:00	**Proposed provider payment mechanisms for South Africa** Prof. Di McIntyre, NHI Ministerial Advisory Committee (MAC) member

13:00 -13:30 **Discussion: Q&A**

13:30 - 14:30	**Lunch**

14:30 – 15:30	**Session 11 – Sustaining NHI**

14:30 – 15:00 **Corruption in health care: How to root it out**
Dr William Savedoff, senior fellow, Centre for Global Development, Washington DC, USA

15:00 -15:30 **Discussion: Q&A**

15:30 - 15:45	**Tea**

15*:45 – 16:45*	**Session 12 - Summary**

15:45 – 16:15 **Summary**
Dr Charles Hongoro, NHI Ministerial Advisory Committee (MAC) member

16:45 – 17:00 -	**Closure**

APPENDIX 2: ABSTRACTS

POPULAR SUPPORT FOR NATIONAL HEALTH INSURANCE IN SOUTH AFRICA

Dr. Olive Shisana, NHI Ministerial Advisory Committee (MAC) Chair and CEO of the HSRC

The plan to implement National Health Insurance (NHI) in South Africa is moving forward with the promise of reducing drastic inequalities in the two-tiered public/private healthcare system. As a universal healthcare system, this paper argues that NHI is a positive step toward making the right to health for the citizens of South Africa a substantive reality. The evidence presented in this paper suggests that there is popular support for NHI, despite vocal critics of the new policy. Using data from a nationally-representative household survey, this paper presents evidence that there is overwhelming popular support for NHI and its corresponding tax. The analysis considers the role of social inequality in shaping opinions on NHI and suggests that dissidents of the new NHI health system are likely to be members of privileged groups in South Africa's inequitable society: healthy, contributors to medical aid schemes, employed, and financially stable. Therefore, those who are least supportive of NHI are in fact likely to be little affected by the new tax burden.

EXPERIENCES OF COUNTRIES THAT HAVE IMPLEMENTED SINGLE-PAYER SYSTEMS: SUCCESSES AND CHALLENGES

Dr. Bill Hsiao, Professor of Economics, Department of Health Policy and Management, Harvard School of Public Health

National health insurance (NHI) comes in many forms. Universal coverage under NHI was achieved only after WWII. Single-payer NHI, an equitable, efficient, and effective NHI model, was only developed in the 1970's. The best known single-payer NHI system is in Canada, followed by Taiwan and Estonia. Now dozens of nations aspire to single-payer NHI systems, but most face major financing and implementation barriers. This session first briefly presents the main structure and features of single-payer NHI followed by details on the major implementation steps as well as issues confronting nations when they move forward. We will discuss the political economy of implementation and illustrate with international examples to show what lessons can be learned by South Africa.

A CANADIAN TREASURE: "THE HEALTH SYSTEM"

John King, Executive Vice-President and Chief Administrative Officer, St. Michael's Hospital, Canada

Canada has a population of over 34 million people and is the second largest country in the world in terms of landmass. Life expectancy in Canada is 78.3 years for men and 80.3 years for women and has been noted as one of the top countries in the world to live in. The quality of life and standard of living in Canada is one of the best in the world and the health of Canadians is considered to be the best due to its national public health system or 'Medicare', as it is often referred to.

For over 40 years the citizens of Canada have enjoyed a national health-care system that ensures that all residents have reasonable access to medically necessary hospital and physician services. The Canada Health Act, passed in 1984, clearly outlines the principles of the system and the government's commitment to accessible, universal, comprehensive, portable, and publicly administered health insurance.

The Canadian system is a single-payer system that is composed of 13 provincial and territorial health insurance plans that share common standards of basic coverage. The roles and responsibilities of the system are shared between the provincial and territorial governments. The federal government monitors each of the governments to ensure they are living up to the principles of the Canada Health Act. Adherence to these national criteria is voluntary; however the national government uses fiscal levers to ensure the principles are followed. This financial assistance comes via sizeable transfer payments to the provinces and territories. With that said, the national government does maintain some direct responsibility for the healthcare of certain groups such as treaty Indians and the military.

Although the Canadian system is considered a public national system, 30% of the total costs of health care are delivered in partnership with the private sector for items that are not considered medically necessary. Therefore, things such as eye care, dental, pharmaceutical (administered outside of a hospital), physiotherapy, preferred accommodations, etc., are provided (or subsidised) through private insurance companies paid for by the employee, the individual, or both. In more recent times, as the sustainability of the current system has become increasingly challenged and the need to exhibit increased fiscal constraint with reduced taxation revenues, a great deal of discussion and debate is floating around national home care and drug plans to increase efficiency of the administration of these services and reduce the cost burden to the system.

Canadians love their health system and although there are often long waiting times for surgery, admission to hospitals, or in emergency, 85% of Canadians still rate their system either good or excellent. The main reason for this is the quality of care Canadians receive from well-trained and educated physicians and staff and the fact that patients who require immediate or urgent care are always triaged to the top of the list. Simply put, health care in Canada is available for Canadians when they need it the most and without any discrimination based on their socio-economic status and ability to pay.

In terms of spending, Canada spends 11% of their Gross National Product on health care while the United States is at 14%. Unlike our American counterparts, Canadians do not support private health care; in fact, Canadians are adamantly opposed to a two-tier system. The universality of the system is a useful political strategy that builds social solidarity, despite the fact that each province and territory manages their systems independently within the principles of the Canada Health Act.

In summary, the focus of my presentation to delegates at the NHI seminar will be a look into the history of the single-payer Canadian health care system and how it came into being. From there we will look at what shapes the system today and the various challenges throughout the years that clinicians and administrators alike have had to deal with and persevere through in order to preserve the basic tenets of the Canada Health Act. The discussion will move to the future outlook of a publically administered health system and the work that must be done to ensure its sustainability for generations to come.

QUALITY OF HEALTHCARE IN THE FREE STATE: LOW HANGING FRUITS

Dr. Sipho Kabane, Health HOD for Free State

The major goals of health systems are to improve health outcomes, satisfy the needs of communities and to provide financial risk protection. The Medium-Term Strategic Framework of the ANC-led government declared that education and health were the two top priorities, and that these two key areas of provision of social services have to achieve specific demonstrable outcomes within the first five years. The aspirant vision for health was: 'A long and healthy life for South Africans'.

Health is expected to make strides and achieve the following outcomes:

- Increased life expectancy
- Reduced maternal and child mortality
- Reduced burden of HIV, AIDS and TB
- Strengthened health systems

The Minister of Health, Dr. A Motsoaledi, has made two major pronouncements that are relevant to the presentation today:

1. That health facilities, whether public or private. Will ONLY be part of the NHI if it complies with a minimum set of quality standards and is accredited to provide a designated package of services.
2. That health facilities must, at all times, comply with the following set of basic public expectations in order to improve the quality of its services:
    - Cleanliness
    - Good staff attitudes
    - Patient and staff safety

- Medicine availability
- Infection control
- Reduced waiting times

I will therefore focus my presentation on patient safety as a driver of health-care quality in the Free State. I will argue that adequately addressing patient safety issues will have an impact on:

- The ministerial injunctions
- The four key sector outcomes
- The sector vision
- Two of the main health-system goals (improving health outcomes and increasing patient satisfaction) in preparation for the NHI

Are there low hanging fruits in the terrain of patient safety that can lead to improved quality of service in the short term? I will argue that, based on the research study that we have recently completed in the Free State, there are some basic interventions that can be used to achieve this. At the centre of this is the establishment of a system for reporting incidents and adverse events, developing capacity to analyse these, developing meaningful and effective interventions and disseminating these lessons learned throughout the organisation.

I will present the data that we have on the nature of the incidents and adverse events, how these can be classified to identify risks, and some of the interventions that were put in place in order to improve patient safety and overall quality of health care.

HEALTH SERVICE PROVISION AT PROVINCIAL LEVEL: THE CASE OF THE NORTH WEST

Dr. Uma Nagpal, District Health Services, North West Province

The Minister of Health announced that ten districts in the country will pilot the NHI. The Dr. Kenneth Kaunda District in the North West was chosen based on the selection criteria set by the national DoH.

A conditional grant of R 11.5 million has been allocated to the provincial DoH as part of the resource allocation process intended to support activities directed at piloting key aspect of the NHI. These resources are to be used to fund the shadow processes for implementing and rolling out of key service delivery, administrative and technical functions required by the NHI in the initial years.

The first five years of NHI will include piloting and strengthening the health system in the following areas:

- Management of health facilities and health districts
- Quality improvement
- Infrastructure development
- Medical devices including equipment
- Human Resources planning, development and management
- Information management and systems support

A centralised process of advertising and short listing of hospital CEOs was initiated by the NDOH.
An initial assessment of quality improvement projects has been done. Recommendations to strengthen the same will be implemented.

Facility infrastructure teams have been established at provincial and district level. They are prioritising infrastructure challenges and service delivery challenges with the National team.

Eleven outreach teams have been established and are functional, covering eight wards. Eleven professional nurses have been trained to lead these teams. Nearly 500 community health workers have been trained. A district clinical specialist team has been appointed. A centralised system, e.g. in the appointment of hospital CEOs, often results in delays.

A number of lessons have been learnt in this process that includes the private health sector seeing NHI as a threat. Public servants see NHI as a system that will cost them money for insurance they might not need. The issue of social solidarity has not been driven strongly enough. Lastly, NHI has brought new enthusiasm among health workers

OPPORTUNITIES AND CHALLENGES OF PREPARING FOR NHI IMPLEMENTATION THROUGH PILOTS

Dr. S. Zungu, Head of DoH, KwaZulu-Natal

The Province of KwaZulu-Natal is committed to the provision of the highest standard of health care in a manner that is efficient, affordable, equitable and acceptable to the citizens of the province. Health managers and policy makers are inherently concerned about the performance of the health system, and whether the system is able to deliver the best possible quality of care to the citizens, while the demand for health care is increasing. The challenge facing health policy makers is to reduce the burden of out-of-pocket payments for health by introducing a pre-payment system which spreads the financial risk and reduces the possibilities for catastrophic health expenditure. At the heart of this system is the ability to provide care that is of highest possible quality and within resource constraints.

In addition, helping them remain healthy, the citizens demand that the system should treat them with respect and dignity, should provide them with adequate information to make decisions about their health and should meet their demands of high quality health care. Evidence shows that satisfied clients are most likely to comply with their treatment; they are open to their health care givers about their conditions and continue to use the health services. The programmes that promote and measure client satisfaction, and are responsive to the demands of the clients are very effective and can bear immediate fruits.

Equity is fundamental to health systems and is one of the principles of the NHI. This is most relevant in KZN, which is predominantly rural, and one of the most impoverished provinces in the country. The population is also very mobile, resulting in high rates of urbanisation with associated urban poverty. Attraction and retention of highly-qualified staff to these rural and peri-urban communities is extremely difficult. One of the approaches adopted by the department to provide comprehensive care and at the same time reach vast communities is the use of modern mobile services, 'clinics on wheels'. With minimum staff requirements, the 'clinics on wheels' would be able to reach the vast majority of the rural and peri-urban communities.

One of the key points requiring a complete overhaul, is the patient information and record management system. The system is currently manual and cumbersome to work with. The results are long waiting times, loss of records and increased losses due to litigation. An electronic patient administration system and records management presents an opportunity of more efficiency and safety, and would facilitate the management of patients across different facilities and districts. The ICT system should have the ability for two or more business processes to exchange and share information. Pilot projects are underway to test these innovations and provide for standardisation of business processes. By identifying the weaknesses in the business process of the department that causes errors in processes and outcomes, the health information system and patient records system can be re-engineered to avoid errors and improve quality of health care. Results of changes to the system will continue to be monitored and evaluated and further adjustments made where necessary.

Large amount of money is spent on health care, most of which goes to curative hospital-based services. Prevention is still better and cheaper than cure. Keeping communities and staff healthy has far-reaching benefits and remain the key aim of a sustainable and affordable NHI. There some very useful technologies and interventions that have proven to be cheap and effective in promoting wellness and health. These include vaccination against deadly but preventable conditions, PMTCT, excise and diet, breastfeeding and oral rehydration. These programmes have very high returns.

These approaches are easy to achieve and will offered the most rewards within a short space of time. It does not mean that they are cheap quick fixes. Some will require significant capital investment, but can be done immediately and can offer immediate returns. The ultimate goal is to provide the best possible quality of care, that is affordable, accessible and in the most efficient manner.

HUMAN RESOURCES FOR NATIONAL HEALTH INSURANCE

Prof. Craig Househam, Head of DoH, Western Cape Province

The introduction of the NHI heralds one of the potentially most important health-care policy reforms since 1994 th would address the inequity in health-care provision and achieve universal health coverage for the country. There is great public expectationd that the NHI will improve the access and quality of health services of which the public sector will continue to provide the lion's share but which will also contract in private sector health care providers.

Health-service delivery is labour-intensive and critical and the successful implementation of the NHI will depend on adequate staffing of the services. A staffing model that ensures adequate staff numbers with the appropriate competencies and values at all levels of care will be a key enabler.

The shape and size of the health-care service platform and the package of care of services to be delivered will be the primary determinants of the required staffing levels and competencies at all levels of the service.

The provisioning and management of this workforce will require practical tools, systems and processes. The experience of the Western Cape DoH that forms the basis of this presentation is shared on the understanding that lessons learned may provide the basis for a country-wide approach within the NHI model.

It is accepted the health needs will always outstrip the available resources, thus the need for prioritisation of resources, maximum efficiency and optimal productivity. The human resource processes from hard systems modeling to staff establishments and the actual filling of posts are briefly outlined.

Staff is both the most valuable but also the most expensive asset of a health service. Western Cape personnel costs account for approximately 60% of the expenditure, which includes the cost of full-time employees, agency staff expenditure, part-time employees and overtime payments. The approach of the Western Cape in determining staff numbers and managing staff expenditure will be shared in the context of the envisaged NHI.
A motivated and committed work force is critical to render a quality health service that is needed for the effective delivery of the NHI.

The national bargaining process which determines the personnel costs of the health service will form a crucial part of the development of the NHI. So also will be the interventions and measures to deal with the 'softer' aspects of staffing, such as staff motivation, attitudes and values. In addition, there is a need to provide infrastructure conducive to both quality health service and the retention of quality health professionals.

Alignment between the requirements of a national health service and the universities as the training institutions is vital. Key to the success of the NHI is that there is an output of appropriately trained health professionals who possess the necessary competencies and values that match the needs of the health service. Significant retraining within the current health service, both public and private, will be required to match the current competencies and skills with needs of the future NHI.

COSTING OF NHI

Mr Mark Claassen, NHI MAC member

Estimating the cost of the NHI presents many challenges. Stakeholder interest in the results is wide and includes policymakers, national finance, and various public and private sector groupings.

This presentation will set out the approach adopted in estimating costs for NHI in South Africa, which work was performed under mandate from the MAC on NHI. We will set out the methodology

followed, the demand side dynamic, the quantum of private sector health funding assumed and the key assumptions and validation process.

We will also indicate areas where new work should be performed, given the progress of the NHI since the initial report.

PROCUREMENT OF GOODS UNDER THE UNIVERSAL COVERAGE SYSTEM

Prof. Charles Hongoro, NHI MAC member

Achieving universal coverage presupposes access to effective health services for all. Provision of good quality services requires having appropriate drugs, equipment and supplies acquired at the best possible total cost of ownership; in the right quality and quantity; at the right time; in the right place; and from the right source for the direct benefit or use of government and private providers, generally via a contract. The paper navigates the current system of procuring goods and its challenges in SA. It then explores the notion of central procurement under a universal coverage system and its implications for costs, quality of services and population health in general. An argument is made that procurement is more than just the act of buying a product; it also includes a range of requirements such as accreditation of suppliers, service level agreements, product delivery, clinical and utilisation outcomes and evaluation of new products. Delivering a successful procurement process requires a collaborative approach involving skilled resources in financing, purchasing, management, information technology, clinical and pharmacy and quality control found across various stakeholders (e.g. health facilities and providers, pharmaceutical, equipment and devices, and other medical supplies industries)

PROVIDER PAYMENT INNOVATION UNDER A SINGLE-PAYER SYSTEM: TAIWAN EXPERIENCE

Prof. Rachel Lu, Dean, Chang Gung University, Taiwan

Taiwan adopted a single-payer approach when achieving universal health coverage in 1995. As of 2010, Taiwan devoted 6.55% of GDP on health. The annual expenditure of the NHI was USD 14.9 billion, accounting for 50.21% of the national health expenditure. Despite impressive system performance, Taiwan has been plagued by concerns over financial sustainability as the NHI revenue-base has not been able to keep pace with GDP growth since 1998. Acting as a monopoly, as well as a monopsony in the market place, the NHI has exploited its market power experiment with various payment reforms, aside from a uniform fee schedule which reimburses hospitals and physicians mainly on a fee-for-service basis. Diagnosis Related Group (DRG), global budget, and pay for performance (P4P) programmes, are among a few illustrative reform policies. At its initial launch, NHI has introduced a case payment system (a prototype of DRG) in 1995 and gradually expanded to cover 54 medical procedures before the official implementation of the Taiwan DRG system (in 5 phases) starting January 2010. To cope with financial distress, NHI gradually set up separate global budgets for dental services in 1998, Chinese medicines in 2000, and primary care services delivered in clinic setting in 2001, and finally hospital outpatient and inpatient services in 2002. In addition, to enhance incentives for providing good quality of services, the NHI also launched several disease specific P4P programmes, including those for diabetics, asthma, hypertension, and breast cancer starting 2001.

Mending the financial gap has been the major driver for various payment reforms. However, the implementation of the reform initiative has not granted immunity from political interference. This presentation will highlight the advantages and disadvantages of the payment reform options and the key system political factors that facilitate the provider payment innovation initiative as well as those that undermine the implementation effectiveness.

PROPOSED PROVIDER PAYMENT MECHANISMS FOR SOUTH AFRICA

Prof. Di McIntyre, NHI MAC member

At present, public sector health services in South Africa are funded from general tax revenue via rigid line-item budgets and staff within these services are paid a salary. Private-sector health-service providers are largely paid on a fee-for-service basis by medical schemes (private voluntary insurance schemes) and individuals who pay for care on an out-of-pocket basis. Neither of these payment

mechanisms promotes appropriate incentives for providers to deliver efficient and high-quality health services or an affordable and sustainable health system. Instead, the private sector faces ongoing increases in the price of services, as well as problems of supplier-induced demand, which in turn have contributed to rapid increases in expenditure and contribution rates in medical schemes. The public health sector is seen as providing poor quality health services and as being inefficient.

Active, or strategic, purchasing of health services from both public and private providers is seen as a critical element of the proposed NHI reforms. Changing provider-payment mechanisms is a core element of active purchasing. International experience indicates that a mix of provider payment mechanisms is needed to achieve an appropriate balance of incentives, and that these payment mechanisms need to be constantly refined to take account of provider performance in response to these incentives. This paper will explore the main provider payment mechanisms under discussion for the NHI (risk-adjusted capitation for PHC services and DRGs for hospital services) and explore how these could be complemented with other payment mechanisms to promote the provision of efficient, high quality services. It will also highlight other elements of active purchasing needed to successfully implement provider payment reform in South Africa.

CORRUPTION IN HEALTH CARE: HOW TO ROOT IT OUT

Dr. William Savedoff, Senior Fellow, Centre for Global Development, Washington, DC

Corruption drains substantial resources from the health sector in most countries and undermines health care in ways that lead to injury and death. Though corruption cannot be eliminated in a sector as large, dispersed, and complex as health care, it is possible to reduce its scale and impact. In this presentation, Dr. Savedoff will explain why effective corruption control must be consistent with the structure of a health system, recognising that vulnerabilities to fraud and abuse vary between systems based on insurance enrolment, directly-subsidised public provision, or regulated markets. Then, focusing on national health insurance (NHI) systems, Dr. Savedoff will draw lessons from international examples on three levels. First, the choices a country makes regarding the governance of the NHI system create institutions that may be more or less accountable to society in ways that improve integrity and ensure timely responses to challenges and threats. Second, different designs selected for payment systems and monitoring mechanisms can expand or limit the opportunities for fraud and abuse. Finally, the NHI system needs an intelligence function which proactively tests its own systems for their effectiveness at discovering corruption and seeks information about newly-emerging threats from a wide range of sources. Ultimately, no 'system' or computer programme can root out corruption, only people can do this by working responsibly, by acting with integrity and by outsmarting those who would profit at the public's expense.

APPENDIX 3: BIOSKETCHES

MR MARK CLAASSEN

Mark is the leader of PricewaterhouseCoopers Actuarial Competency Group in Africa. He is a member of the MAC on the NHI. He also chairs of the costing, tax and revenue sub-committees.

Mark has over 28 years of experience in actuarial and financial services fields, including employee benefits and health care. He also has considerable actuarial modelling experience in the health care and life insurance space. He is a former independent trustee for Old Mutual's Orion fund, covering over a million members, and has previously been involved in work on benefit funds for the Botswana government, Eskom, Transnet and the Workman's Compensation Fund. He also recently co-authored a research paper on national social security reforms. Mark is a fellow of the Institute of Actuaries (UK) and is a highly respected expert in his field.

PROF. CHARLES HONGORO

Charles is a health economist and policy analyst with over 20 years' experience in health systems and policy-oriented research in low- and middle-income countries. His research interests are on health systems, especially health financing, hospital reforms, human resources for health, contracting of services, economic evaluation of health systems interventions, and using priority diseases such as HIV/AIDS as probes to understanding broader health systems functions. He is an extraordinary professor of research at Tshwane University of technology and a member of various international and national committees including being a member of MAC on NHI and of the pricing committee.

PROF. CRAIG HOUSEHAM

Professor Household has been heading the DoH of the Western Cape Province government for 10 years, from October 2002 to the present. He graduated as a medical practitioner and paediatrician from the University of Cape Town. He holds an honorary professorship at the University of the Free State, where he was professor and head of the Department of Paediatrics from 1988 to 1995.

He is the author of publications in various journals and chapters medical text books and the principal author and editor of a South African undergraduate paediatric textbook.

Professor Household is the only person to have headed two of the provincial health departments in South Africa since 1994 and is the only person remaining from those initially appointed in 1995 as provincial heads after the political transformation in 1994. As a result, he has unique health-care managerial experience in the South African context.

He led the development of the then new strategic Healthcare 2010 direction for the Western Cape government and more recently the strategic plan for 2020. The related comprehensive Service Plans for 2010 developed and maintained effective management structures that have ensured that service delivery targets have largely been met; the department has largely remained within its allocated budget and achieved unqualified audits to date.

Professor Household has over the years developed a keen interest in management strategies particularly in the health sector. He received the African Access National Business Awards for Top Performing Government Leader in 2011.

DR. BILL HSIAO

William Hsiao is the K.T. Li Professor of Economics and directs the Health Financing Programme at Harvard University. Hsiao received his PhD in Economics from Harvard University. He is also a fully-qualified actuary with extensive experience in private and social insurance.

Hsiao has conducted health-financing studies for more than three decades. He was actively engaged in designing health system reforms and universal health insurance programmes for many countries,

including the USA, China, Colombia, Poland, Taiwan, Vietnam, Hong Kong, Sweden, Cyprus, Uganda and South Africa. The State of Vermont invited him to design a single-payer system for the state that was passed into law in 2011. He developed an analytical model for national health systems that can diagnose the causes of successes or failures of a system and identify viable reform measures. His analytical model has shaped how we conceptualise health systems, and has been used extensively around the world in health-system reforms. Previously, his research focused on payment and incentive structures for physicians and hospitals. Currently, Hsiao conducts a large-scale social experiment in China to develop an affordable and sustainable health-care model for the poor rural residents.

Hsiao was elected as a member of the Institute of Medicine, US National Academy of Science, as well as a board member of the National Academy of Social Insurance and Society of Actuaries. Hsiao was named Man of the Year in Medicine in 1989 for his development of a new payment method (the resource-based relative values) for physician services.

He has published more than 180 papers and several books and served on several editorial boards of professional journals. Hsiao served as an advisor to three US presidents, US Congress, the World Bank, the International Monetary Fund, World Health Organization, International Labor Organization and International Advisory Board on health policy for several nations, including Chinese State Council. He is a recipient of honorary professorships from several leading Chinese universities and several awards from his profession.

DR. SIPHO KABANE

Dr. Sipho Kabane, MBCHB, MBA, MPhil-Economic Policy is the head of the Free State DoH. He is responsible for providing strategic leadership for the department and ensuring provision of quality health services at all health facilities in the province.

He was previously the executive manager (deputy director-general) for Clinical Health Services.. His roles included managing all health facilities in the province and being responsible for quality assurance, clinical governance and patient safety programmes.

Prior to this Dr. Kabane was the general manager at Universitas Academic Hospital in Bloemfontein. One of his key responsibilities was to develop and manage public private partnerships and provide an appropriate referral system and outreach programme for communities of the Free State, Northern Cape, Lesotho and beyond.

Dr. Sipho Kabane is the member of the following organisations:

- Chair of Mothusi IPA (1995 – 2001)
- Member of South African Medical Association (SAMA)
- Member of South African Medical Dispensing Practitioners
- Oliver Tambo Fellowship in Public Health

MR JOHN KING

John King was appointed executive vice-president and chief administrative officer at St. Michael's Hospital in Toronto, Canada in 2002, and oversees finance, planning, information systems, human resources, legal services, corporate performance, medical imaging, labs, pharmacy, and supply chain and support services functions.

John is a leader in his field with over 30 years of health-care experience, including roles as vice-president at St. Paul's Hospital in Saskatoon; senior vice-president of the Alberta Healthcare Association; and senior operating officer of several Alberta hospitals under the umbrella of the Calgary Regional Health Authority. John moved to Ontario in 1999 to become the assistant deputy minister of programmes in the Ministry of Health and Long-Term Care, his most recent post prior to joining St. Michael's in spring 2002.

A certified health executive with the Canadian College of Health Leaders (CCHL), he was appointed chair of the college's board in June 2010. He has also received numerous awards, including the Career Edge Leadership Award (2009), the St. Michael's Hospital Spirit of Philanthropy Award (2009) the CCHL Mentorship Award (2011) and the Telfer School of Management (University of Ottawa) Trudeau Medal Award (2012).

John is an avid supporter of international exchange programmes with physicians, administrators and politicians from Canada and Scandinavian countries. He has led and facilitated health-care study tours to Australia, Italy and the most recognised annual Healthcare Study Tour to Sweden.

PROF. JUI-FEN RACHEL LU

Jui-fen Rachel Lu, Sc.D., is a professor in the Department of Health Care Management, and dean of College of Management, at Chang Gung University in Taiwan, where she teaches comparative health systems, health economics, and health care financing. She earned her BSc from National Taiwan University, and her MS and ScD from Harvard University. She was a Takemi Fellow at Harvard (2004-2005) and has been an Honorary Professor at Hong Kong University since 2007, a guest professor at Huazhong University of Science and Technology (2010-2013), and an adjunct professor at Xi'an Jiaotong University (2011-2014) in China.

Her research focuses on

1. the equity issues of the health care system;
2. impact of the NHI program on health care market and household consumption patterns; and
3. comparative health systems in Asia-Pacific region.

She has also served as a member on various government committees dealing with health care issues in Taiwan, such as the National Health Insurance Supervisory Committee (DOH), Hospital Management Committee (DOH), and Hospital Global Budget Payment Committee (BNHI), etc. Dr. Lu received the Minister Wang Jin Naw Memorial Award for Best Paper in Health Care Management, presented by Kimma Chang Foundation in 2002 and was the recipient of IBM Faculty Award in 2009.

She has published papers in Health Affairs, Medical Care, Journal of Health Economics, Health Economics, Social Science and Medicine, Health Economics, Policy and Law, Osteoporosis International, Health and Quality of Life Outcomes, and Taiwan Economic Review etc, and a book, Health Economics (in Chinese).

PROF. DIANE MCINTYRE

Professor Diane McIntyre is a professor in the School of Public Health and Family Medicine and was the founding director of the Health Economics Unit. She holds a South African Research Chair in 'Health and Wealth', and was recently elected as a foreign associate to the National Academy of Sciences' Institute of Medicine (IOM).

Professor McIntyre has provided extensive, high-level policy inputs within South Africa and other African countries, particularly in relation to health-care financing issues, including currently contributing to the development of the National Health Insurance policy. Her current focus is on conceptual and empirical research around how to achieve universal coverage in low- and middle-income countries. She has also been centrally involved in developing health economics capacity within the African region.

MS MALEBONA PRECIOUS MATSOSO

Ms Malebona Precious Matsoso is the director-general l of the national DoH since 08 June 2010 to head the national office under the leadership of Minister of Health, Dr. Aaron Motsoaledi and Deputy Minister Dr. Gwen Ramokgopa. She is managing health issues for the entire country and reporting to and advising the Health Ministry

Ms Matsoso holds a degree in Pharmacy from the University of Western Cape, a post-graduate Diploma in Health Management from the University of Cape Town, and a Master's degree in Law and Ethics (LLM) from the University of Dundee. As a pharmacist she has worked in both the public and private sector at management level.

She was previously a director in Public Health Innovation and Intellectual Property (PHI) in the office of the director-general of the World Health Organisation (WHO), serving as WHO Secretariat on Public Health, Innovation and Intellectual Property.

Her career within the field of medicine control have included posts as head of the Medicines Control Council (MCC), member of the National Research Ethics Council of South Africa, and the director of the Essential Drugs and Traditional Medicines Programme for the DoH, as well as being a member of various advisory panels with an emphasis on improving access to medicines and antiretrovirals.

Prior to this she was the Registrar of Medicines of the National Drug Regulatory Authority in South Africa and has produced over 40 technical guidelines for the Authority. Ms Matsoso served in various bodies, including the Medicines Control Council (MCC), which she headed for seven years where her responsibility included overseeing 10 technical committees.
She has been a member of various local and international advisory panels, mainly tasked with improving access to medicines. She also served as Secretariat of the Southern African Development Community (SADC) harmonisation initiative and has coordinated related activities for the region for effective regulation of medicines in the region.

DR. ZWELI MKHIZE

Dr. Zweli Mkhize is a South African doctor, legislator and politician. He is also the chancellor of the University of KwaZulu-Natal and the leader of Government Business in KwaZulu-Natal; chair of the African National Congress (ANC) in KwaZulu-Natal; member of the ANC's National Executive Committee (NEC); chair of the ANC's National Education and Health sub-committee and chair of the 2010 World Cup Political Oversight Committee.

Dr. Mkhize was the longest serving provincial health member of the Executive Committee (MEC) in the country, which he has 1994 to 2004 and MEC for Finance and Economic Development from 2005 to 2009. He returned to South Africa in 1991 and worked at Themba Hospital and he started his private practice in Pietermaritzburg in late 1991.

He played a practical role in the process leading up to the establishment of a democratic government in this country and served as a member of the ANC's National Health Secretariat between 1991 and 1994. He was co-founder of the Regional Health Forum and became a member of the National Health Forum, which is one of the structures that served as consultative avenues for stakeholders in the health sector across the country. He was also a member of the ANC's National Health Secretariat, a structure that was tasked with the responsibility of developing the country's health policy.

Dr. Mkhize played an active role in the promotion of peace and stability in the KwaZulu-Natal. He started his medical career at Mc Cords Hospital in Durban in 1983, where he did his internship, and he worked at Edendale Hospital in Pietermaritsburg in 1984 before going into exile in 1986 where he continued with his medical practice in Swaziland and Zimbabwe.

DR. UMA NAGPAL

Dr. Uma Nagpal has extensive management experience in the public sector having managed hospitals for over ten years as CEO. Dr. Nagpal has public health experience as a director for communicable diseases at KZN province and at National. Currently a chief director district health services in the North West province managing the Dr. Kenneth Kaunda district, which is the pilot District for the NHI.

DR. BILL SAVEDOFF

Bill Savedoff is a senior fellow at the Center for Global Development, a non-profit think tank based in Washington, D.C., where he works on issues of aid effectiveness and health policy. His current research focuses on the use of performance payments in aid programs and problems posed by corruption. At the Center, Dr. Savedoff played a leading role in the Evaluation Gap Initiative and co-authored Cash on Delivery Aid with Nancy Birdsall.

Before joining the Center, Dr. Savedoff prepared, coordinated, and advised development projects in Latin America, Africa and Asia for the Inter-American Development Bank and the World Health Organisation. As a senior partner at Social Insight, Dr. Savedoff worked for clients, including the National Institutes of Health, Transparency International, and the World Bank. He has published books and articles on labour markets, health, education, water, and housing including a journal article on What should a country spend on health?, Governing Mandatory Health Insurance, and Diagnosis Corruption.

DR. OLIVE SHISANA

Dr. Olive Shisana holds a Doctor of Science degree from The Johns Hopkins University, Broomberg School of Public Health where in 1999 she was admitted into the Society of Scholars for her outstanding contribution to public health. She is Chief Executive Officer of the Human Sciences Research Council (HSRC); previously she served in the same organization as an Executive Director of a South African national research program on Social Aspects of HIV/AIDS and Health. Prior to that she served as Professor of Health Systems at the National School of Public Health at the Medical University of Southern Africa and later as Executive Director of Family and Community Health at the World Health Organization in Geneva. She is a principal or co-principal investigator on HIV surveillance studies and has published articles on social epidemiology of HIV and national health insurance. She serves as Chair of the Ministerial Advisory Committee on National Health Insurance. Currently she serves as President of the International Social Sciences Council, an organization based in Paris, and also serves on the UNESCO High Panel on Science and Technology for Development.

DR. SIBONGILE ZUNGU

Dr. Sibongile Zungu holds a MBChB, B Admin, a post-graduate diploma in Health Services Management and is currently doing her MBA. She heads up the provincial DoH, KwaZulu-Natal, where she is responsible for the overall provision of health services in the province. As the accounting officer for health, she ensures the achievement of the goals for the sector through her strategic leadership.

She was previously the acting head of the DoH and Social Services, in Mpumalanga. Her roles included providing strategic leadership for the department and ensure management of all health facilities in the province.

Prior to this Dr. Zungu held various positions (i.e. Deputy Director General Health Branch, Mpumalanga Department; senior general manager, Health Services Cluster, KwaZulu-Natal Health Department; chief director, Institutional Support Services, KwZulu-Natal Health Department and chief executive office of Garankuwa Hospital (George Mukhari Hospital).

She also held other medical positions in various hospitals: senior medical superintendent; medical officer and senior medical officer.

Dr. Zungu held the position of Inkosi of the Madlebe Traditional Authority from 1991 to 1997. During this period, she led and participated in various development initiatives including the establishment of the Community Bank.

She has delivered several papers and presentations covering topics on rural women and development, the role of traditional leaders in local government, and options for integration of traditional leadership structures and contemporary governance structures.

Dr. Zungu received several awards such as:

- Martin Luther King Junior Peace award in 1995.
- Top 20 Influential Leaders in the South African Health Care Sector in 2007.

She is recognised as one of the leading women in the transformation of the status of women in KwaZulu-Natal.

APPENDIX 4: PRESENTATIONS