The Actuarial Profession
making financial sense of the future

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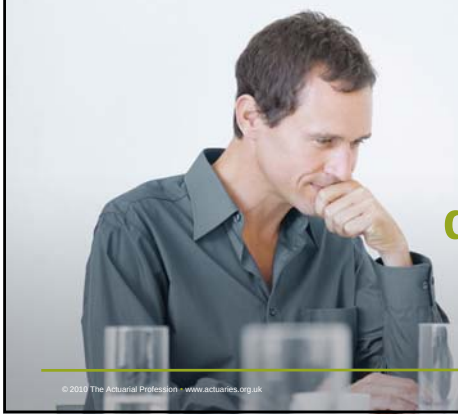


Health reform debates: South Africa, USA and China

12 May 2010

Agenda

- Introductory remarks on health reform debates generally
- Factors driving the debates in
  - SA
  - USA
  - China
- Thinking about the suggested solutions

Introductory remarks

- The theory (Rawls) and idea (Sen) of justice…
- …in the context of health systems

A Theory of Justice

- John Rawls' groundbreaking 1971 book can throw light on health debates
- His theory is a social contract theory, deriving from the work of Kant, Rousseau, Locke
- Develop a theory of justice based on the "transcendental identification of the ideal institutions" (Amartya Sen, The Idea of Justice, 2009)
- In contrast to the comparative approach followed by Bentham, Mill, Marx
- Rawls: think about a perfectly just society from behind a personal "veil of ignorance"
  - I.e. not knowing if you will be rich or poor, healthy or sick, intelligent or not, black or white etc. in such a society

A Theory of Justice

- Given such an original position, or veil of ignorance, what are the principles of justice for institutions (or healthcare systems)?
- First principle:
  - Each person is to have an equal right to the most extensive system of equal basic liberties compatible with a similar system of liberty for all
- Second principle:
  - Social and economic inequalities are to be arranged so that they are both:
    - To the greatest benefit of the least advantaged (the “difference principle”), consistent with the just savings principle, and
    - Attached to offices and opportunities open to all under conditions of fair equality of opportunity

John Rawls, A theory of Justice, rev. ed., 1999, p266

A Theory of Justice

- First priority rule:
  - The basic liberties can only be restricted for the sake of liberty (overall)
- Second priority rule:
  - The second principle of justice is prior to the principle of efficiency, and to that of maximizing the sum of advantages, and fair opportunity is prior to the difference principle

John Rawls, A theory of Justice, rev. ed., 1999, p266

Applying the theory

- My interpretation in the context of a healthcare system:
  - Everyone must have the liberty to choose where, when and how to obtain healthcare
  - But, there are inequalities, mainly due to affordability and supply constraints
  - And, for these to be to arranged so that they are to the greatest benefit of the least advantaged, consistent with a just savings principle, a healthcare system would have to:
    - Offer a set of minimum health benefits to the least advantaged in society
    - At an affordable level to the economy
    - And, if funded from taxes, in a progressive way
    - Without imposing an excessively high tax burden on those who pay it, and without removing their liberty to pay more for better benefits
    - But with "just savings" in the form of human and infrastucture capital investment in the healthcare system for future generations

The Idea of Justice

- But this is not easy to achieve!
- For instance, in a society of high inequality, there aren't many taxpayers
- Which may restrict the package to unacceptably low levels
- And the private sector will attract resources away from public if basic liberties of choice of healthcare are upheld for wealthier
- But if choice removed, doctors may well not stay
- Amartya Sen's "Idea of Justice" critiques Rawls' theory on the grounds that **there is no "unique choice, in the original position, of one particular set of principles for just institutions, needed for a fully just society"** (Sen, p.56, 57)

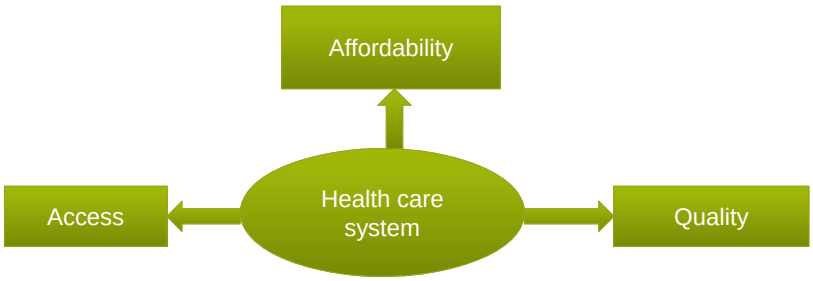
The Idea of Justice

- Insightful example in Sen (Sen, pp 11, 12); 3 children who claim the right to a flute:
  - Anne is the only one who can actually play it – she will get most utility out of it: utilitarian will support giving her the flute
  - Bob is the poorest – he has no other toys: economic egalitarian will support giving the flute to him (utilitarian may agree to an extent, but will recognise Anne also has a claim)
  - Carla made the flute, and has the right to the fruits of her labour: right-wing libertarian will agree with this (but a left-wing marxist may also agree!)
- There is no easy solution: totally different transcendental solutions may be obvious to different people
- Social choice theory: *we need an agreement, based on public reasoning, of rankings of alternatives that can be realised*

Back to health systems…

- There are strong and opposing forces operating in healthcare systems at any time
- The needs for access, affordability and quality, pull healthcare systems in different directions
- And each of the forces are a function of various factors and characteristics within the system….

Back to health systems…



- Affordability = *f* [tariffs and prices (which = *f* (supply of providers)), co-payments, burden of disease, case-mix adjusted utilisation, incentives (which = *f* (structure, remuneration model, regulations etc)]
- Access = *f* [supply of providers, cost, co-payments, burden of disease, utilisation, incentives]
- Quality = *f* [supply, burden of disease, cost, co-payments, incentives]

Social choices

- So what are the social choices balancing these opposing forces?
- They are in my view a function of:
  - Path dependencies
    - Compelling article in New Yorker, 26 January 2009: contrasting American, French and British models based on what they inherited after 2nd World War
  - Politics, or Government's incentives in health reform
  - Publicity and public perceptions
    - Note interesting example in Sen, pp. 164 and 165: Kerala (India) has far better health outcomes than Uttar Pradesh and Bihar, but the highest rates of self-perceived morbidity
  - Economic fundamentals: in the end, what can we afford?

In South Africa

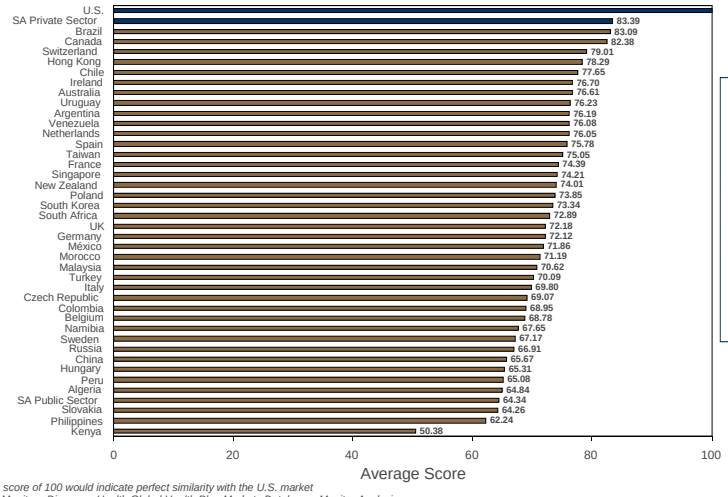
- We have been on a path of SHI reforms, as a step towards NHI in the longer term
- But there has recently been much debate about fast-tracking the implementation of NHI
- There is a Ministerial Task Team currently working on these proposals, but no official publication yet of the proposed NHI model

Health care in South Africa

- All South Africans have access to Public Sector health facilities, subject to a means test
- Most South Africans who have the means, buy private health insurance
  - Provided by not-for-profit trust funds (“medical schemes”)
  - Administered and managed by for-profit companies
  - Generally comprehensive in- and out-of-hospital cover in private facilities
  - With a prescribed minimum benefit package
  - Membership is voluntary
  - And a policy of risk-equalisation has been under development for several years

Private Health Plan market is similar to the US

Similarities of Health Plan market against the US and Asia



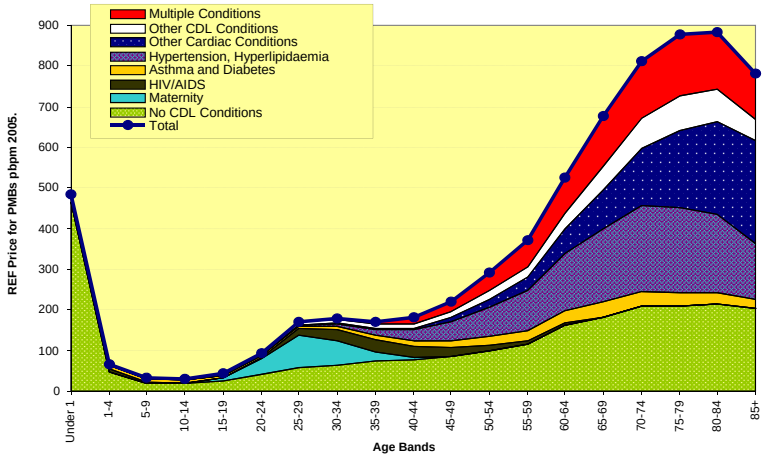
Weightings Used In Ranking

- **Demand: 20%**
  - 5 variables, 4% each
- **Supply: 20%**
  - 4 variables, 5% each
- **Funding: 20%**
  - 9 variables, 2.2% each
- **Regulatory Environment: 20%**
  - 14 variables, 1.4% each
- **Outcomes: 20%**
  - 6 variables, 3.3% each

Note: A score of 100 would indicate perfect similarity with the U.S. market
Source: Monitor - Discovery Health Global Health Plan Markets Database; Monitor Analysis

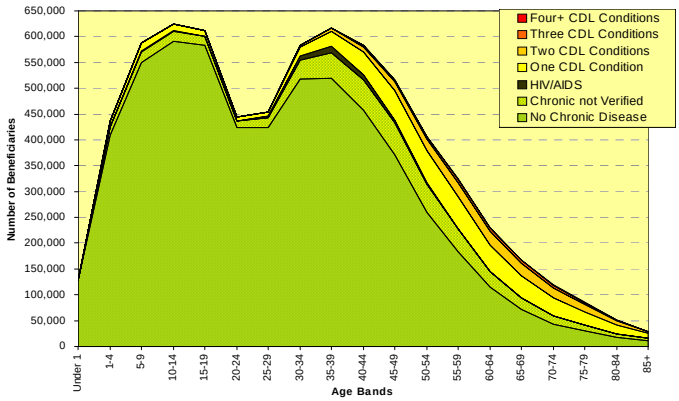
Problems with diseases of lifestyle

Burden of lifestyle diseases is clear



Source: Risk Equalisation Fund Technical Advisory Panel, 2005

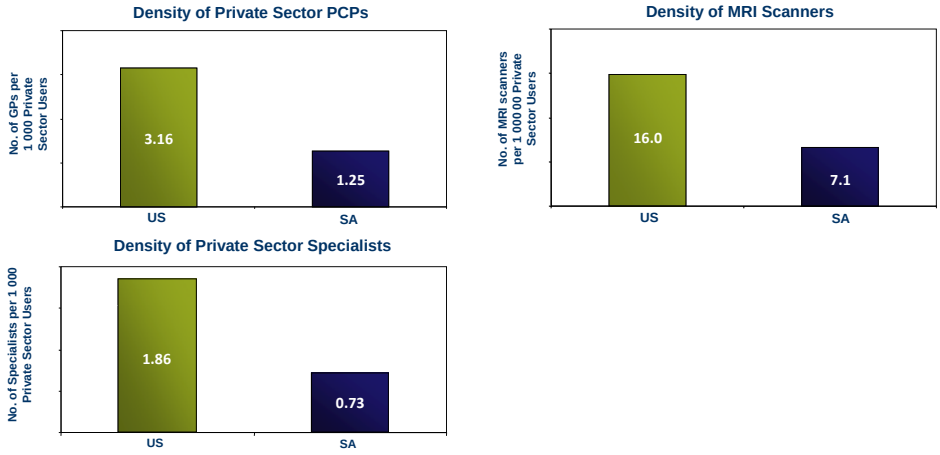
Age profile: evidence of anti-selection



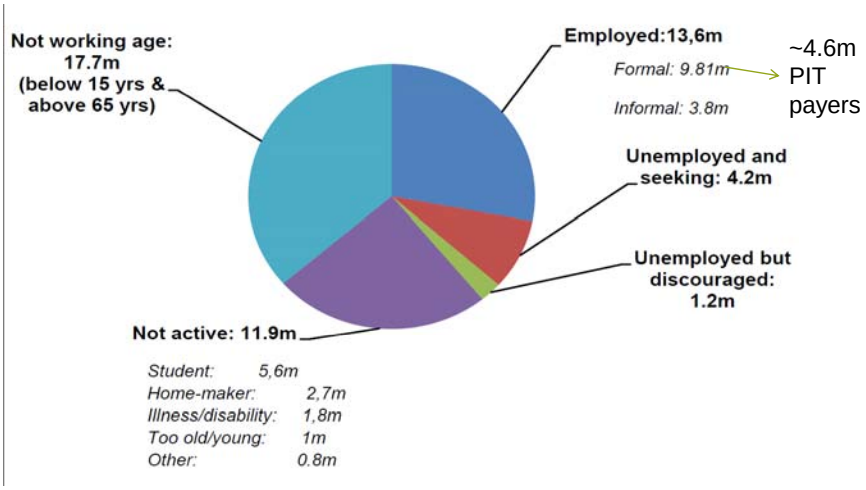
Source: REF Contribution Table 2007

An undersupply of medical professionals

GP and Specialist density – SA vs US

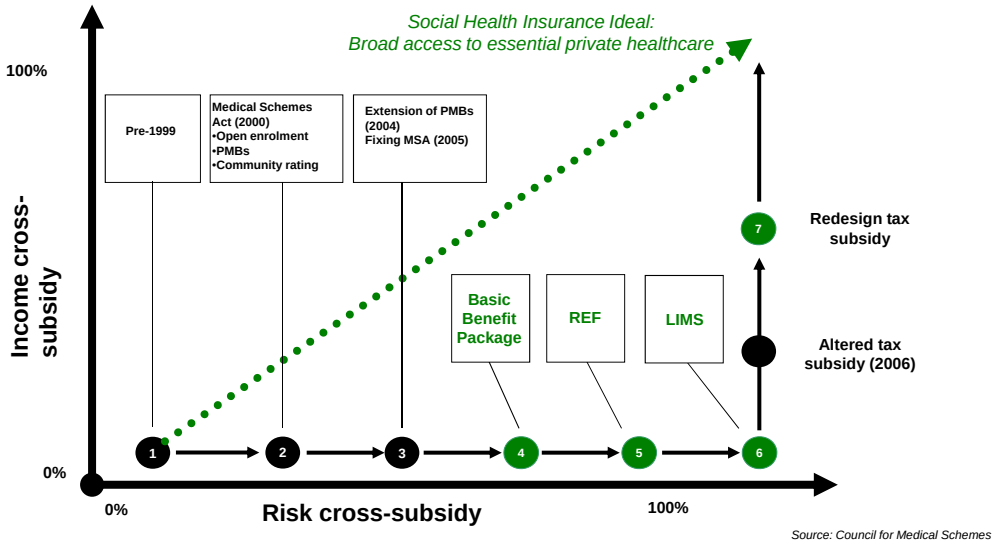


SA population, labour force and tax base



Source: Labour Force Survey March 2009, and Stats SA mid-2008 estimates of population

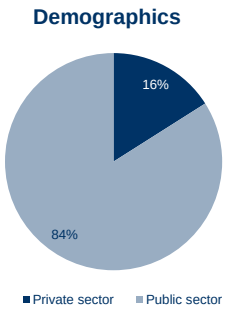
SHI path for private health insurance

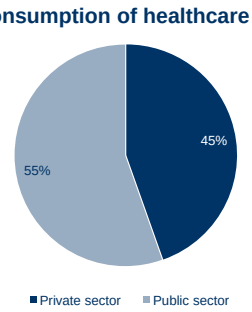


Source: Council for Medical Schemes

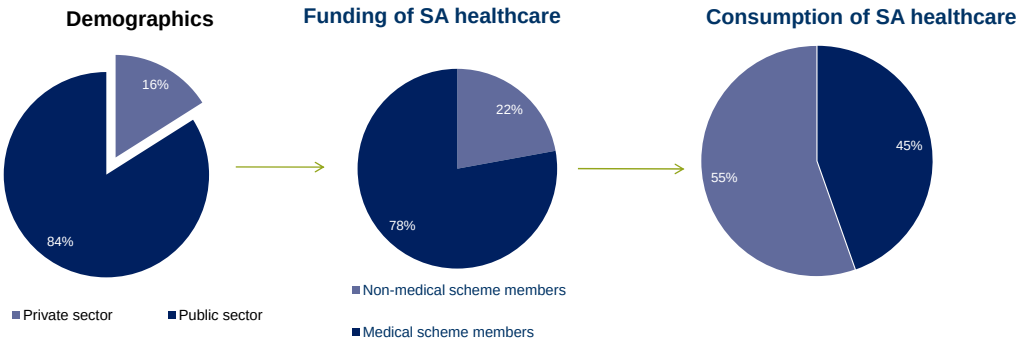
The equity debate

"16% of the population consume 45% of total healthcare funding"



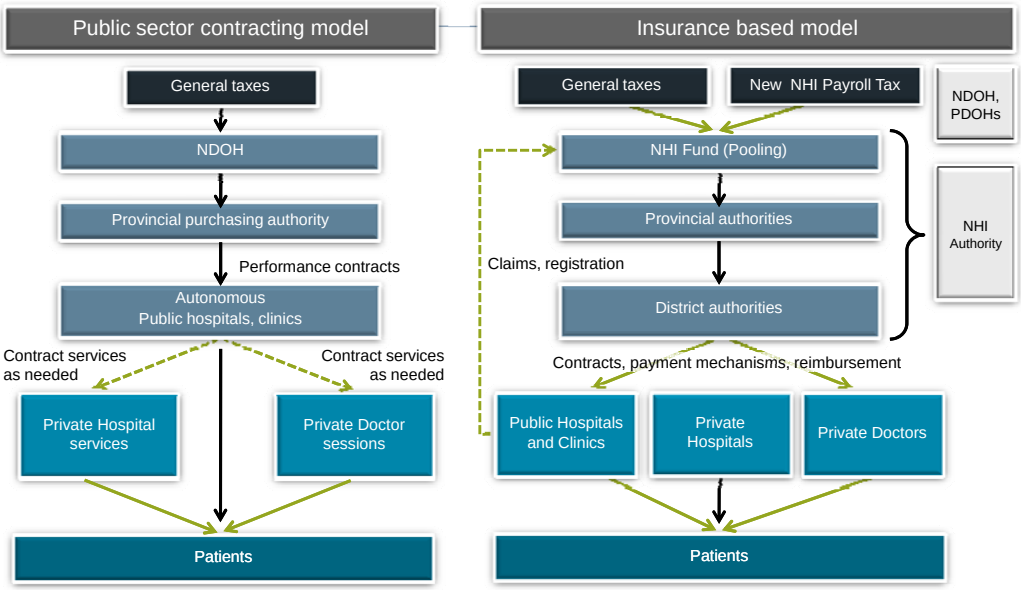


The equity debate



16% of SA funds 78% of healthcare and consumes 45% of SA's healthcare
Is this sufficiently equitable?
Can more be done for those who do not have adequate access to healthcare?

Alternative models for NHI



US Health Reforms

- The debate in South Africa is mainly driven by equity, access and cost
- In the US, access and cost are the main drivers
- With 45m out of 300m uninsured, and the increases in cost of healthcare attracting much interest
- Harvard Business Review (Jeff Levin-Sherz, April 2010): article on cost drivers in the USA – very similar to those in South Africa:
  - High prices
    - Need transparency and encourage competition (price controls?)
  - Stop paying fee-for-service
    - Salaried physicians perform fewer services than those paid fee-for-service
    - Alternative reimbursement models
    - Especially important to introduce correct incentives for generated costs (e.g. pathology)

US Health Reforms

- Cost drivers in the USA – very similar to those in South Africa:
  - Too many specialists
    - Pay primary care providers more
  - A few people cost a lot
    - 5% of US patients account for 48% of US healthcare spending
    - In South Africa, 9.5% of patients account for 44% of costs (at Discovery Health)
    - Co-ordination of care very important, particularly for very ill patients
    - Lack of co-ordinated care a major difference from UK NHS
    - eHR, communication vital, but more needed
- To an outsider, two obvious major drivers of US healthcare costs, in addition to the above:
  - Litigation
  - Direct to consumer advertising

US Health Reforms

- Coverage now available to all
  - Mandate means everyone must purchase insurance, unless suffering hardship (penalties)
  - Subsidies for lower income
    - The most important element missing from South African health reforms
    - But it comes at a cost
    - And it may still not cover all 40m – there is Medicaid undercount, and about 10m non-citizens
- Guaranteed issue
- Rate bands (3:1, except for smokers)
- Minimum Credible Coverage (minimum benefits)
- Standard benefit options
- National Rate Review Board

US Health Reforms

- Health insurance exchange
  - Offering customers comparisons and information on available plans
- Risk adjustment of all insurers
- “Bend the curve” of costs
  - Excise tax on costly benefit plans
  - Innovation centre
  - Insurance exchange
- Important to introduce guaranteed issue and a form of community rating with a mandate – so this aspect good

US Health Reforms

- Some outsider views:
  - Important to introduce guaranteed issue and a form of community rating with a mandate – in South Africa, the dramatic “twin peaks phenomenon” is testimony to what happens if mandate absent
  - But cost of this?
  - Important not to set minimum benefits too high – and difficult to choose sensible “Rawlsian” minimum package of health care given costs
  - And cost control measures fairly weak, although the exchange may stimulate more effective cost controls in any event through competition
  - But does not deal with the issues of litigation and D2C advertising

Health Reforms in China

- China spends less than 6% of GDP on healthcare
- Per capita spending of $122, compared with approximately $6000 per capita (US) and $3000 in UK
- Government direct funding of healthcare 20%
- About 35% assumed by social health plans (where both employers and employees contribute)
- And 45% by households via co-payments. Being seriously ill in China may lead be financially debilitating due to this.
- The latter is a major driving force for health reforms
- Because of the catastrophic consequences of a major health event, people save to cover the cost, which has major economic consequences
- Hence Government's active encouragement of private insurance

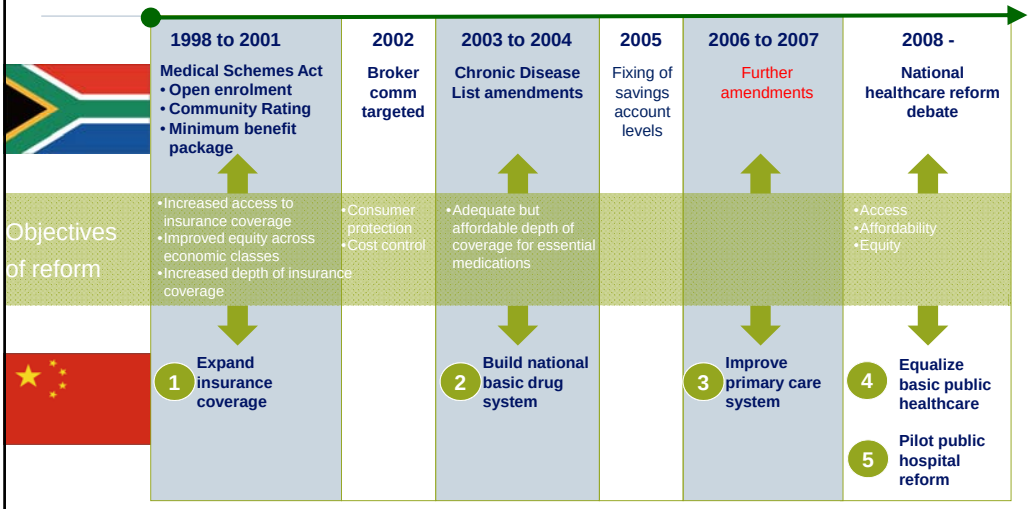
Health Reforms in China

- Challenges:
  - Access: long lines at key facilities
  - Quality: only good in urban centres, at key facilities
  - Cost: Government funding of hospitals has remained constant, so sources of funding are drugs and pathology, which falls outside social insurance
- One major difference of health reforms in China, relative to USA, is that there is considerable focus on reforming health provider sector

Health Reforms in China

- 5 pillars of reforms:
  - Expand insurance coverage
  - Build national drug system
  - Improve primary care system
  - Equalise basic public care
  - Pilot public hospital reform
- Very limited private hospital facilities – mainly private wards in public facilities, but these are not utilised appropriately, and are not popular
- Government explicitly encourages private practice, and private insurance
- And large gaps in social insurance remains – although Government has been on a drive to close the gaps
- Specific drug policy aimed to fix current perverse incentives

Parallels between SA and China healthcare reform



Health Reforms in China

- Health reforms in China demonstrates the importance of:
  - A coherent provider and health professional strategy, with the right incentives
  - The value of private insurance where basic benefits are restricted because of costs
  - And that the need for private insurance remains despite policies to "close the gaps"
  - How quality perceptions of providers can drive consumer behaviour
  - The re-establishment of quality community health centres is an attempt to influence consumers' behaviour, and very necessary
  - Overall, there is a clear role for private insurance and private health provision

Health Reforms in general

- Health reforms often focus on funding (insurance) arrangements
- These are important, but there other equally important factors
- Consider demand side as well as supply side
- Demand side considerations attempt to deal with:
  - Affordability
  - Access; and
  - Anti-selection
- Through:
  - Mandate, encouraging wellness (for affordability)
  - Basic benefits, community rating (for access)
  - Underwriting (esp. if no mandate) OR risk equalisation (with mandate): (for anti-selection)

Health Reforms in general

- When looking at private health insurance, Governments effectively consider two models
  - Mutuality vs Solidarity, i.e.
  - Underwriting vs Open enrolment
  - Risk rating vs Community rating
- For community rating, Governments need:
  - Mandate (may be expensive)
  - Risk equalisation (complex)
  - Basic benefits (always pressure to improve); and
  - Product and pricing restrictions (perhaps)
- Under both mutuality and solidarity, it helps considerably for a private insurer to have managed care and wellness initiatives

Health Reforms in general

- But the supply side is just as important as the demand side
- For this, Governments should consider:
  - Overall level of supply of providers, drugs etc
  - And distribution of different types of providers, across geography
- There are several incentives that demand attention on the supply side, (whereas anti-selection is the central incentive on the demand side). These are:
  - Earnings incentive – consider earnings models – e.g. fee-for-service vs salaries
  - Litigation (excessive diagnostics often a symptom) – co-ordinate care, ensure proper gatekeeping
  - Administration incentive – avoiding co-payments
- None of these are easy to solve…

Health Reforms in general

- Consider healthcare equation, and appropriate interventions for every element of it, which will depend on structure of healthcare system:

$$\frac{\text{Cost}}{\text{Member}} = \frac{\text{Cost}}{\text{Healthcare provider}} \times \frac{\text{Benefit}}{\text{Health profile}} \times \frac{\text{Treatment}}{\text{Benefit}} \times \frac{\text{Healthcare provider}}{\text{Treatment}} \times \frac{\text{Health profile}}{\text{Member}}$$

- To manage the above equation:
- Cost = f(risk management and price x available benefits x evidence based medicine x access and networks x wellness of patient base)

- Reforms should aim to address all of these elements, or at least not impose unnecessary constraints on private insurers in terms of their responses to each part of the equation

Conclusion

- There are strong and opposing forces operating in healthcare systems at any time
- The right to health, which is the right to life and quality of life, is so important that open and rational debate is an imperative
- But rights impose obligations, and have to be institutionalised to have content
- There are different and legitimate views on the perfectly just healthcare system
- But there are very real constraints on any system, and incentives operating in systems, and these need to enter any rational debate about reforms
- Actuarial evaluation of costs and constraints in the context of structures and incentives, can add significant value…