



QUANTIFYING RISK, ENABLING OPPORTUNITY

Speakers

- Roseanne da Silva
 - NHI Task Team
- Daniel Shapiro
 - NHI Costing Model
- Anton Gerber
 - Experience at the pilot sites
- Discussion

NHI Task Team

- Part of Healthcare Committee
- Initial development of costing model
- Advisory role
- Participation in NHI discussions

NHI – Guiding principles

- Policy objective is universal access to health care (equity and efficiency)
- Delivery models:
 - Eligibility
 - Funding
 - Pooling
 - Purchasing

What do the experts say?

“In all countries which have achieved National Health Insurance, this has been made possible by the gradual growth in formal employment and incomes. The historical pattern has been for voluntary schemes and schemes that are compulsory for particular groups of workers to grow over time, to a point where they can be integrated in one scheme or reorganized within a coherent national framework, with public services for the rest of the population incorporated as well. Without the necessary employment base, NHI would place a heavy burden on government funds.”

Mills A (Prof) is head of the Health Economics and Financing Programme of the London School of Hygiene and Tropical Medicine

Burden of Disease

- maternal, newborn and child health
- HIV/AIDS and TB
- non-communicable diseases (especially lifestyle related); and
- violence and injury

CMS Report 2013	Prevalence per 1000 beneficiaries		
Chronic condition	2006	2011	% increase
Hypertension	57.6	78.8	36.8%
High Blood Pressure	23.9	32.9	37.7%
Diabetes Mellitus Type 2	12.0	22.1	84.2%
Hypothyroidism	9.7	13.7	41.2%
Glaucoma	1.8	2.7	50.0%
Rheumatoid arthritis	2.0	2.6	30.0%
Bipolar Mood Disorder	0.7	2.3	228.6%
Parkinson's disease	0.5	0.8	60.0%
Chronic renal disease	0.2	0.3	50.0%
Systemic lupus erythematosus (SLE)	0.16	0.22	37.5%

What do we know so far?...

- Commitment to NHI
- DoH priorities include revitalization, primary and preventative care
- Key principles
 - The right to health
 - Social solidarity
 - Public administration / redistribution
 - Public funded entity

What do we know so far?... (2)

- Benefits
 - Primary and preventive
 - Inpatient
 - Outpatient
 - Emergency
 - Prescription drugs
 - Appropriate diagnostics
 - Rehabilitation
 - Mental health
 - Dental
 - Substance Abuse
 - Vision
 - Hearing
- Phasing (2012-2025)
 - Benefits
 - Region (rural)
 - Demographics
- Single payer fund with reimbursement
- Role for medical Schemes
- Development provision in National Budget

The ASSA NHI Model:

- Choice of NHI package
 - Comprehensive
 - PMB
 - PHC
- Population and phasing (through packages)
- Utilisation
- Prices
- Supply side constraints
- MS Role
- Non healthcare costs
- Financing sources
- Economic impacts (employment)

Model structure

- Key assumptions
 - Utilisation levels
 - Service provider availability
 - Costs of delivery
 - Benefit package
- Sources of data
 - Public vs. Private
- Regional variation

Some learnings

- Transition process – unintended gaps in cover
- Simplification for delivery but complexity in structure
- Centralisation vs. decentralisation
- Resistance from existing structures, vested rights

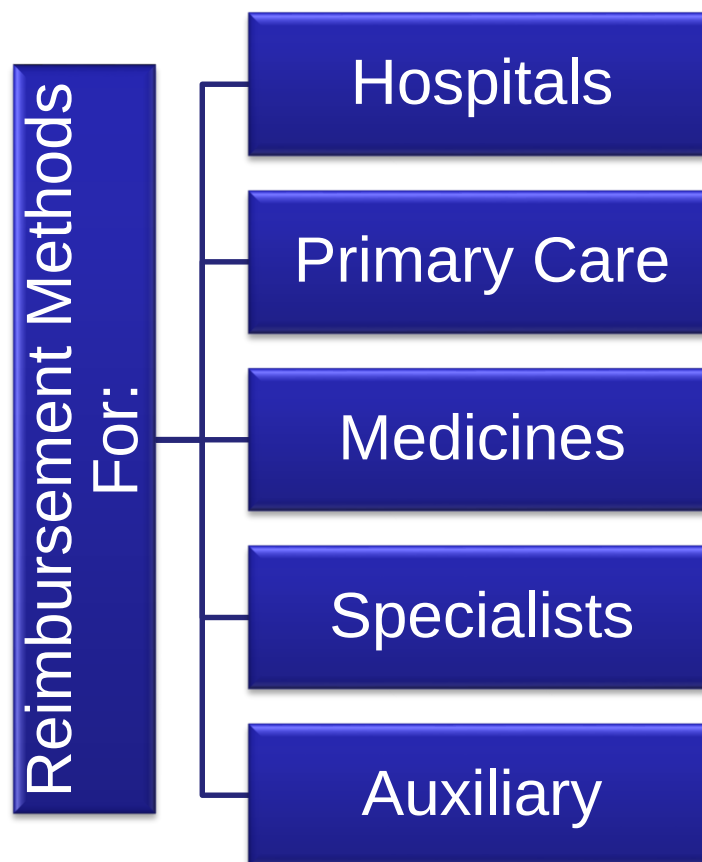
Deloitte project

- Modelling supply
 - Categories
 - Access
 - Definitions
- Remuneration structures
- Capacity – delivery models

Reimbursement Strategies

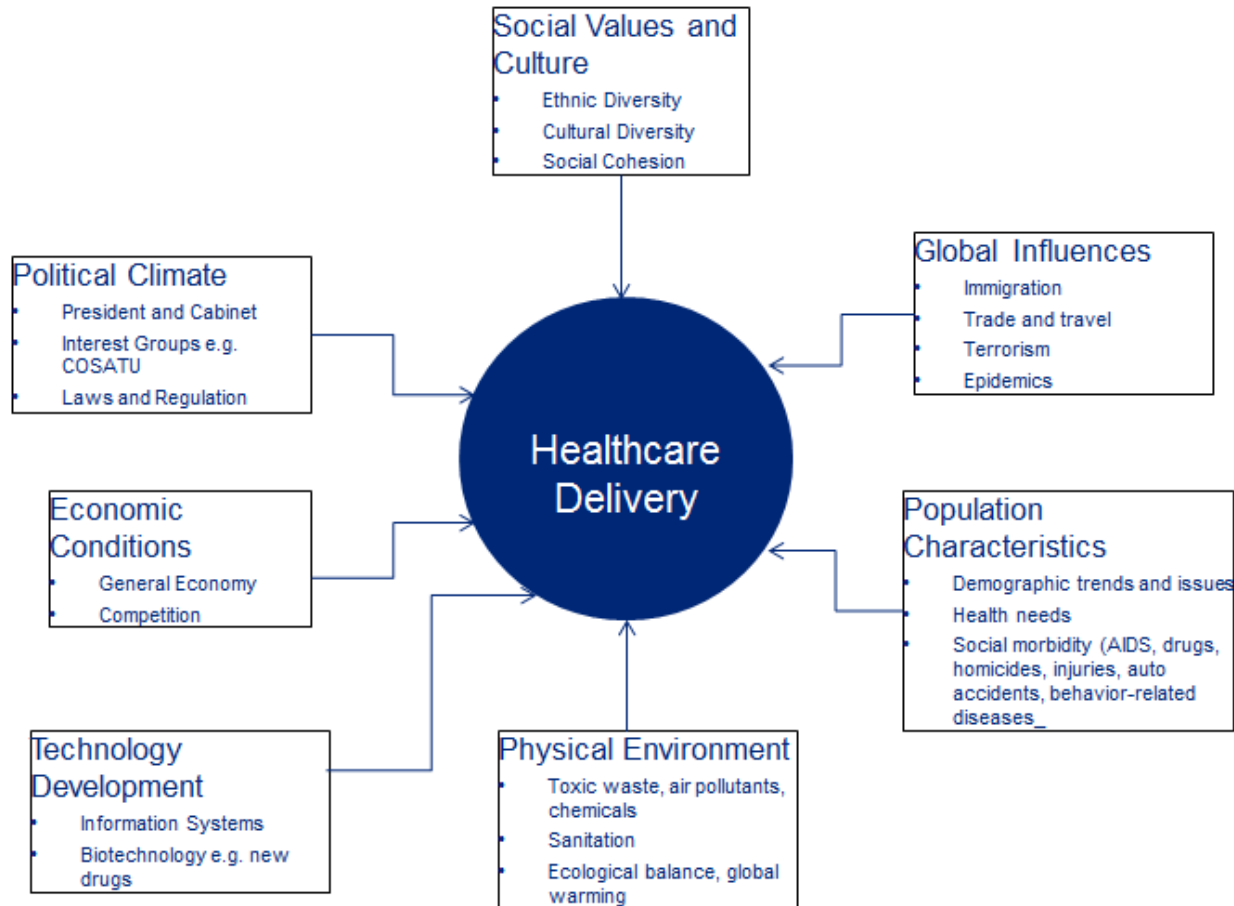
Not a One Size Fits All Solution

For each level and type of care, different combinations of reimbursement methods are applicable.



Service Delivery Models

Key Factors Affecting Healthcare Service Delivery



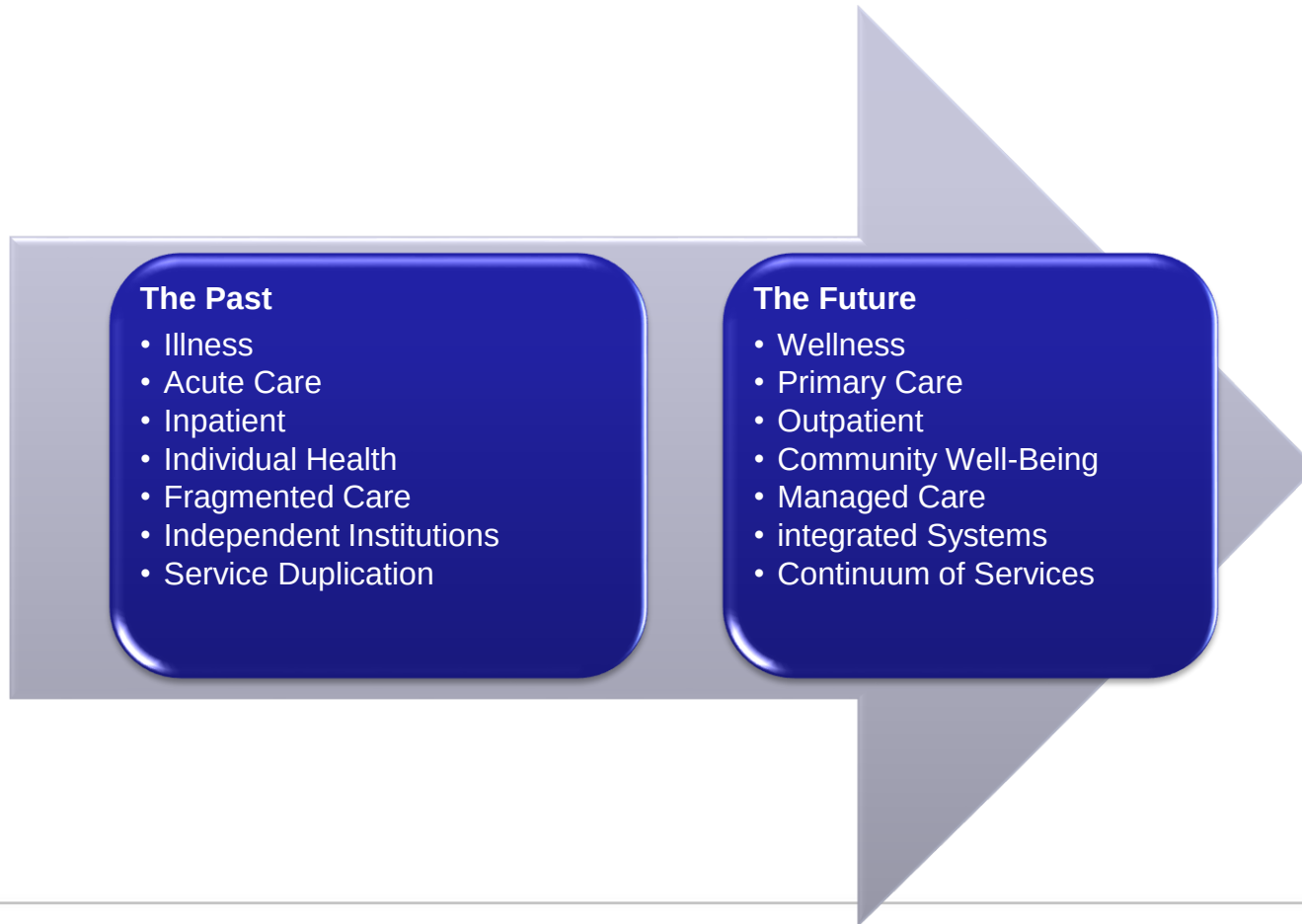
Service Delivery Models

The Continuum of Care

Type of Health Services	Delivery Settings
Preventive Care	Public Health Programs Community Programs Wellness Programs Personal Lifestyles
Primary Care	Physician's Office or Clinic Self-care Alternative Medicines
Specialized Care	Specialist Provider Clinics
Chronic Care	Primary Care Settings Specialist Provider Clinics Long-Term Care Facilities Alternative Medicines
Long Term Care	Long-term Care Facilities
Sub-acute Care	Special Sub-acute units (hospitals, long-term care facilities) Hospitals
Acute Care	Hospitals
Rehabilitative Care	Rehabilitation Departments (hospitals, long-term care facilities) Outpatient rehabilitation centres
End of Life Care	Hospice services provided in a variety of settings

Service Delivery Models

Trends and Directions in Healthcare Delivery

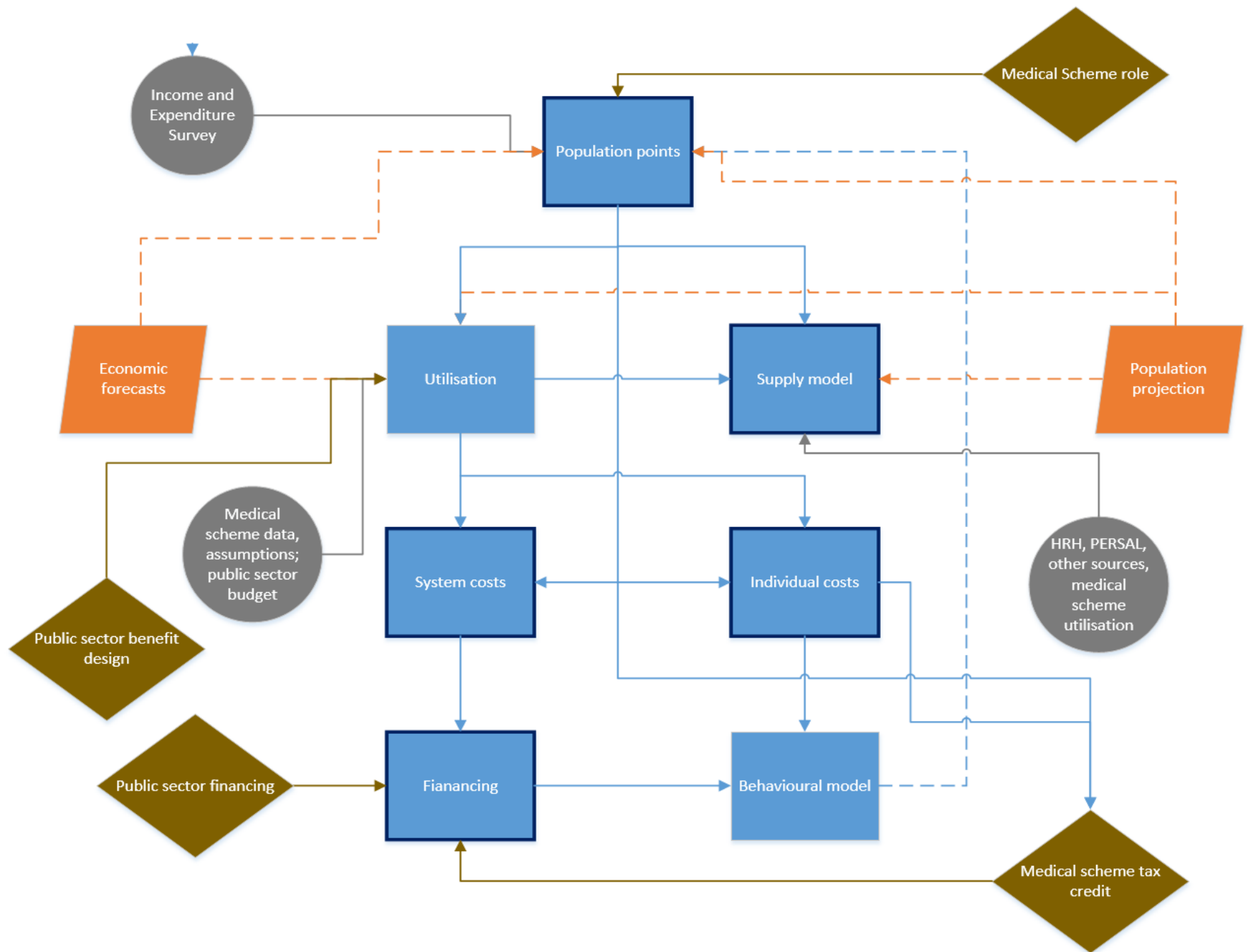


Overview

- Tool for estimating potential policy, economic, demographic and behavioural effects of public policy on decision making units (individuals, households and governments)
- Analyses the total impact of a specific reform or group of reforms on entire distribution of healthcare costs and outcomes in the population
- Allows for transitional implementation of reforms
- Most appropriate for short- and medium- run projections

Model summary

- Simulation model
- Population divided into cells defined by demographic, economic, health
- Non parametric transition probabilities between cells to model evolution of population
- Model components:
 - Healthcare utilisation/expenditure
 - Supply modelling
 - Behavioural (affordability) model
- Model is temporal and allows for transitions from baseline scenario over time
- Outcomes are direct and indirect impacts of policy on particular aspects of the healthcare system
 - Coverage
 - Medical schemes, tax financed public system
 - Costs/spending
 - Individuals, households, government
 - Household financial impacts
 - Human resource requirements



Potential questions to ask

- How will the current system develop under the status quo?
- What will be the cost of defined benefit packages in the public sector, as opposed to a budget driven system?
- What will be the implications of a more costly system for fiscal financing?
- What are the implications of scenarios for supply of human resources for healthcare?
- Can medical scheme pooling play a positive role in the healthcare financing system?
- What do medical scheme contributions grow to:
 - Under the status quo?
 - Under mandatory medical scheme membership?
 - Under a top up role?
- What is the effect of increases in taxes on individuals and households?
- The above scenarios in different economic and demographic contexts
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Pilot Projects

- Reduction of high maternal and child mortality through district-based health interventions;
- Strengthening the performance of the public health system in readiness for the full roll-out of NHI;
- Strengthening the functioning of the district health system;
- To assess whether the health service package, the PHC teams and a strengthened referral system will improve access to quality health services, particularly in the rural and previously disadvantaged areas of the country;
- To assess the feasibility, acceptability, effectiveness and affordability of innovative ways of engaging private sector resources for public purposes;
- To examine the extent to which communities are protected from financial risks of accessing needed care by introducing a district mechanism of funding for health services;
- To test the ability of the districts to assume greater responsibilities associated with the purchaser-provider split required under NHI.
- To assess the costs of introducing a fully-fledged District Health Authority as a Contracting Agency and the implications for scaling up such institutional and administrative arrangements throughout the country;
- To assess the utilisation patterns, costs and affordability of implementing a PHC service package.

The politics of it all

- NHI concept a political response to observed social inequality 2007
- Where are we as a country
 - Talk about economic revolution
 - Next phase of transition
 - Success of EFF message
- Slow incremental change will not get us to where we need to be as a country
- Hesitant white paper is a sign of that
- We need a different approach (not more promises)

Financially dominated discussion

- Public media articles have devolved to an online flame war
- NHI task team and others have assisted treasury to highlight the financial and affordability concerns in a responsible manner
- NHI pilot project (hugely simplified)
 - Throw money at the problem
 - Just billion or so at first to see what sticks
 - Argue that that was not enough (it really isn't)
 - Get more money from the tax payer (who else)
 - Throw a lot of money at the problem (repeat as necessary)
- Initial feedback from the NHI pilot sites bears this out
 - Management process not there to allocate resources optimally
 - Money applied to basic infrastructure problems e.g. potholes and photocopiers not services

Have seen some change in behaviour. E.g. opportunity to retain portion of collections

Hospital dominated discussion

- Problems with public sector infrastructure are well publicized
 - Water/electricity problems
 - No beds/bedding/toilet paper
 - Theatres flooded

Issues like unpaid doctors and creditors sheds some light on other perhaps more fundamental problems.

Had a rare opportunity to see these other challenges first-hand.

Hospital dominated discussion

Management of

- Paper based process has not kept up with sheer patient volume
 - Creditors. Equipment maintenance, shortages
 - Debtors. Inability to collect from medical schemes
 - Admission. No detail record of admission, sub-optimal routing of patients
 - Patients. Accountability for care, follow-ups
 - Files. Misplaced, water damage, sold. Patients moving files between departments including billing
 - Procurement. Central procurement supposed to save money, not seeing this in practice.
 - Human resources. Organogram, who works for us?
 - Office management. Office supplies, photocopiers. Lots of brand new computers but no part of the process
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- Fundamental accessibility problems (the taxi/long queue)

Does the solution lie elsewhere?

Green paper did hint that the solution may lie outside of hospital but with very limited detail...

Easy to feel overwhelmed by the sheer scope of the problem and realizing the state of disrepair is beyond the scope of only money to fix.

Made worse by the lack of focus on the unintended consequences of the NHI proposals.

So what about actuaries?

- Lot of intentions and willingness to help
- Seen as agents of the private sector
- Ringing the alarm regarding unsustainability of the current dispensation
- While we might not be agents of the private sector our approach is more in line with the realities of the private sector
 - Rules of the game is well defined, relatively few externalities
 - Benefit levels are known and stable with slight tweaking over time
 - Lots of good quality data
 - Scope of work neatly reduced to one of pricing and incremental optimization

Encouraging signs

- Work done at the Dept. Family Medicine – University of Pretoria
- Living lab process
- Health engagement with the private sector in areas of technology and expertise
- Goes beyond primary or tertiary to community based care
- Role of doctors as agents of change and clinical management
- Seen as agents of the private sector
- Operating for 3 years already with documented success
- Management and thought leadership is well entrenched
- Money is now following to scale the process.

Our possible future role

- Seek out opportunities for innovation and assist in its incubation
- Huge amounts of data that need to be analysed
- Build a business case for doing this differently
- Use our relationship with decision makers to have these alternatives considered.

Some key points

- Centralised control (single payer or multi-payer)
- More efficient use of resources – multi-disciplinary and task shifting
- Data management is key success factor
- Incorporate quality measures
- Transition process – collaboration with medical schemes
- Different reimbursement mechanisms at different levels
- Sensitivity analysis of projections – especially GDP growth
- Role of co-payments in risk management
- Income expectations of private providers
- Benefit expectations of population
- Will benefit definition be treatments? Rationing by queueing?
Case by case not practical or equitable



For discussion

- Role for ASSA
 - Financial responsibility/sustainability
 - Risk management options
 - Understanding of systemic risk
 - Interactions with stakeholders
- Role for the model
 - Phased implementation
 - Role for private sector
 - Scenarios - risk