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# Micro Health Insurance – The product development challenge

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# The challenge

- Lack of access to health insurance amongst the poor in developing nations  
(Griffin & Shaw, 1995; Doyle et al., 2011)
- Prefunded health insurance is preferable to alternative sources of finance  
(Brown & Churchill, 2000; Binnendijk, Koren & Dror, 2012)
- BUT: MHI providers have largely failed to deliver.....



» Why?

» Can we help?

# Agenda

- The need for micro health insurance
- Key challenges
- Our project plan
- Progress to date
  - Case studies
  - Work in progress



# Target Market

- The goal of universal access to healthcare
- The need for prefunded, pooled care
  - Types of care
  - Levels of care
- Informal economy (irregular incomes)
- The role of the State / dependence



# Insurance Core Principles

- Is an inclusive insurance market feasible for MHI?
  - Affordable
  - Sustainable
  - Convenient
  - Responsible
  - Supervised insurance providers (proportionality principle)



# Structuring delivery

- Funding
  - Sources
  - Adequacy
- Pooling
  - Entity
  - Mechanism
  - Governance



- Purchasing
  - Incentives
  - Contracting
- Benefits
  - Level of care
  - Managing expectations
  - Cost sharing
- Monitoring
  - Data collection
  - Risk management
- Distribution



# Specifying the problem

- Willingness to pay
- Benefit expectations
- Current utilisation (impact of insurance)
- Accessibility of service providers



# LIMS study in SA

- GP visits
- X-ray and laboratory tests ordered by the GP
- Dental consultations
- Optometry services
- Prescription medicines, subject to a primary care formulary
- Emergency transport to a public hospital



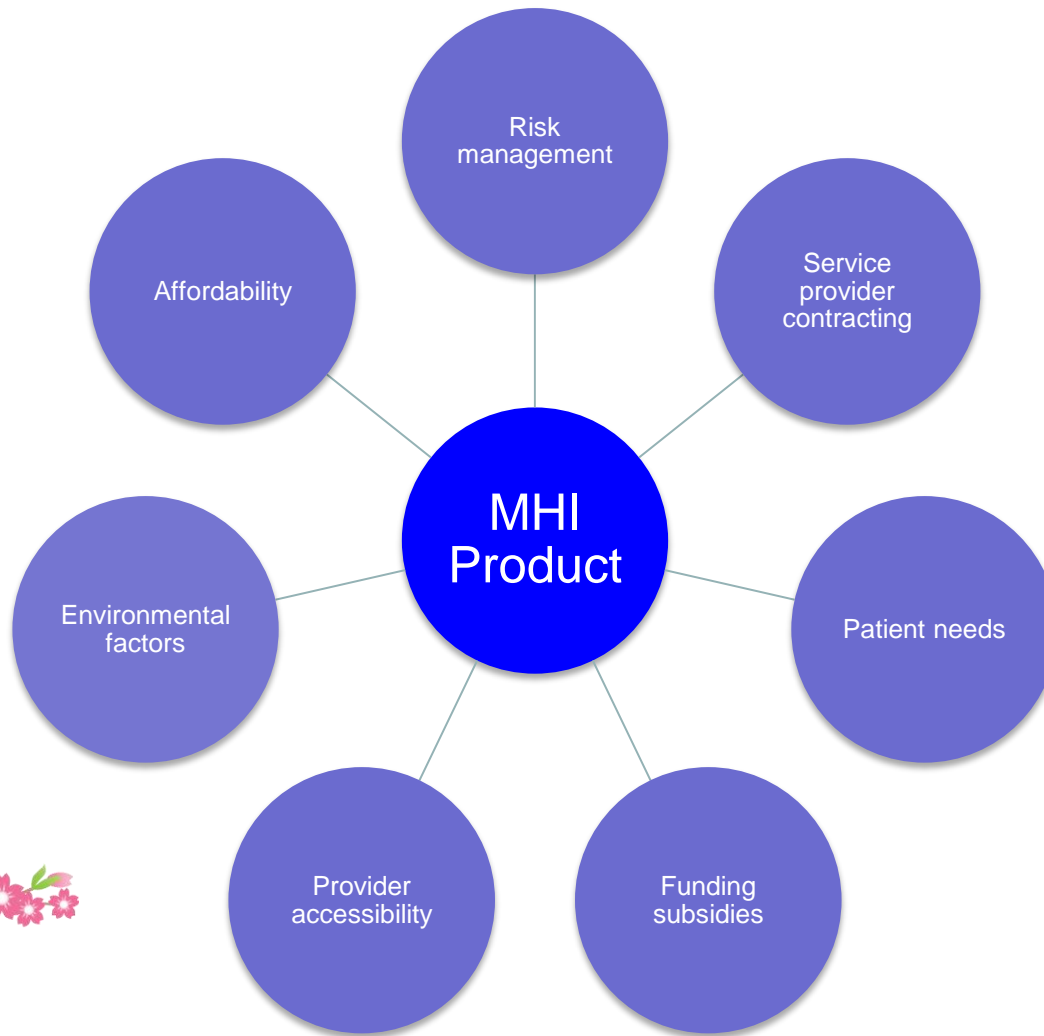


# Pricing requirements

- Population
  - Identify targets
- Utilisation
  - Benefit expectations
- Infrastructure
  - Accessibility
  - Levels of care
- Price of services
  - Contracting opportunities (risk sharing)



# Lots to consider.....



# Micro health insurance project

- Aims
  - Investigate practices
    - Benefits
    - Structuring
  - Framework for assessing utilisation
- Process
  - » Data collection
  - » Best practice assessment
  - » Framework development
  - » Link to Milliman Pricing Model Project



# Collaborators

- Micro Insurance Working Group of the IAA
- Finmark Trust
- Wits University
- Milliman



# Sources of data per country

- International statistics (WHO...)
- National statistics
- Regional statistics
- Local (insurers and community entities)

## – Challenges

- » Specificity
- » Consistency
- » Confidentiality



# Burden of disease

- Preventative vs. curative care
- Communicable vs. non-communicable
- Assessments of prevalence
  - Diagnosed
  - Latent
- Treatment protocols and levels of care



# Components of claim cost

Utilisation

%  
claiming

Claims  
per patient

Cost per  
treatment

Type of  
treatment

Service  
provider



# A model for assessing costs





# Some case studies

- Kenya
- India
- Ghana
- Columbia



# Kenya case study

- 39m population
- Small formal sector
- NHIF
- Burgeoning private sector



# CIC's journey in micro health insurance

Initial product  
2004-2008

- Family health insurance cover piloted with KADET (MFI) and expanded cover to other MFIs and SACCOs
- Extended benefits, included private healthcare providers (more costly)
- **Low take-up and business was loss making**

Bima ya Jamii  
2008-2010

- Bundled life and family health , health component underwritten by NHIF
- **Low take up and renewal rates, health component was loss making (LR 120%), challenges with the relationship with NHIF**

Afya Bora  
2012

- Family health insurance cover underwritten by CIC
- International consultant for product development and pricing
  - Used national data for setting assumptions for utilisation rates
  - **Developed a list of procedures and recommended rates to be negotiated with healthcare providers**
- **Low claims ratio in first year, but loss making in second year, premiums may need to be adjusted**

# India case study

## Country overview

- Population 1.2 billion (2011) (+/- 30% BPL)
- Healthcare expenditure 4% of GDP (2008-09)
- National objective of universal health

## Burden of disease

- Majority of healthcare expenditure for low income market:  
Diarrhoea, dysentery, gastritis, respiratory infections, malaria
- Main reasons for hospitalisation:  
Heart disease, kidney and urinary system disease, gynaecological disorders, accidents and injuries



# Overview of RSBY

Targeted at households living BPL  
Member plus 5 dependants (143m beneficiaries in 2012)

Hospitalisation benefits: 727 listed procedures incl.  
maternity (secondary care), transport costs  
Annual max benefit: US\$555 per household (sufficient for  
90% of households)

Healthcare services provided by empanelled hospitals  
(75% admissions at private hospitals)

Premiums 100% subsidised by government  
(households pay US\$0.5 enrolment fee)

Underwritten by commercial insurers  
Districts allocated to insurers based on lowest premium  
quote



# Key indicators

## Enrolment

38 million households, 512 districts

## Utilisation and cost

Hospitalisation ratio: 2.5% (2010) (6.4% private insurance)

1.9% (round 1) → 2.2% (round 2)

Average cost of admission: US\$100 (2012)

## Premium and claims ratio

Average premiums: US\$11.5 (2009) → US\$6.8 (2013)

Claims ratio: 73% (round 1) → over 100% (round 3)



# Factors affecting utilisation and cost

**Age and gender**

**Diagnosis/ procedure**

**Enrolment**

**Out patient pilot**



# Risks and Risk Management

<b>Adverse selection</b>	Less of an issue	Subsidised premiums
<b>Cream skimming</b>	Less of an issue	Targeted enrolment list
<b>Moral hazard and over utilisation</b>	Substitution for IP for OP Increase in utilisation over time	Max annual benefits, listed procedures and packaged rates
<b>Provider induced demand</b>	Increase procedures higher fees Pair procedures to maximise fees (increase in hysterectomies)	Independent review of treatment Dis-empaneling providers involved in fraud





# Work in progress

- Expected outcomes
  - Literature survey under way
  - Identification of best practices
    - Benefit design
    - Implementation
  - Collection of data
  - Utilisation framework



# The Role of the Actuary

- Providing a framework
- Advice and support
- Monitoring and analysis
  
- **Innovation, Care, Experience**



# References

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