

Micro Insurance: Considerations for Health and Care

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The author is an adviser to the 'Social Re' project which aims to encourage the use of micro health insurance to improve access to healthcare for populations in the developing world. Comments and expressions of interest in participating in the work of the group are encouraged.

Discussion Objectives

- Background
- What is Micro Insurance?
- Why is it relevant to healthcare?
- Pricing & Product Development
- Capital Management & Reinsurance
- Role of the Actuarial Profession
- Moving forward: key considerations and next steps

Key considerations

- **Much of the world's population live in poverty**
 - Half the world — nearly three billion people — live on less than two dollars a day
 - Approximately 790 million people in the developing world are still chronically undernourished, almost two-thirds of whom reside in Asia and the Pacific.

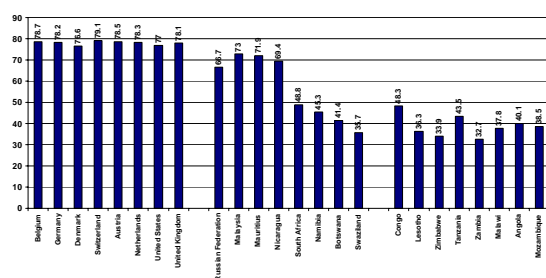
Sources: UN Human Development Report, UNICEF

Key considerations

- Many of the world's population have no access to healthcare
 - 2.2 million children die each year because they are not immunized
 - 15 million children orphaned each due to HIV/AIDS (similar to the total children population in United Kingdom)
 - For the 1.9 billion children from the developing world, there are:
 - 640 million without adequate shelter (1 in 3)
 - 400 million with no access to safe water (1 in 5)
 - 270 million with no access to health services (1 in 7)
- Sources: UN Human Development Report, UNICEF

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Life Expectancy varies significantly by country



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Key considerations

- Natural Disasters are more likely to occur in countries with high poverty levels
- Lack of access to insurance in many poorer countries
- Corollary A: Need to improve access to insurance to protection for target populations
- Corollary B: Given health needs health care a-priori seems logical product area

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Overview of micro insurance

- Provision of insurance services typically to **low income** people
- Poor people **most exposed to risk** but least protected against its consequences
- Provides access to insurance and consequently:
 - **Protects families against financial disaster** which may lead to life-threatening situations
 - **Provides access to services** that would not routinely be available

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Overview of micro insurance

- **Products** have included:
 - Credit life
 - Funeral insurance
 - Crop insurance
 - Property
 - Health insurance
- Particular **barriers** associated with each type has constrained development of micro-insurance

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Overview of micro insurance

Types of micro insurers entities/units (MIU) vary significantly

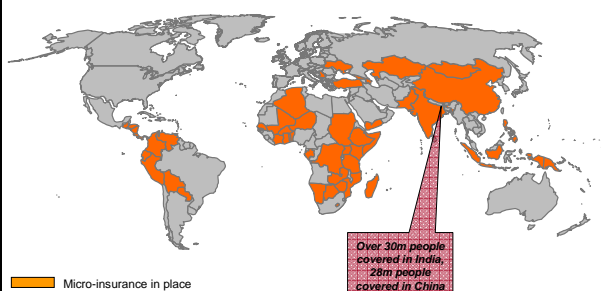
- Commercial Insurers
- Non Governmental Organisations / Philanthropy Organisations
- Mutuals
- Community Insurers

Delivery model varies significantly:

- Partner agent model
- Full service model
- Provider-driven model
- Community-based/mutual model

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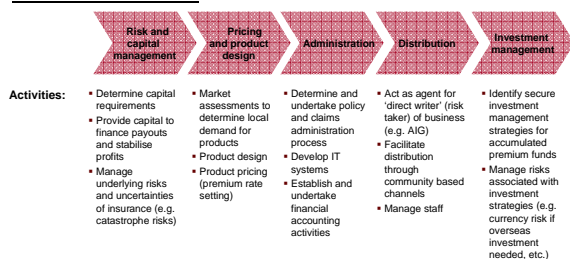
Micro Insurance is provided in many of the poorest countries of the world



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Overall Value Chain for Micro-Insurance

Micro-Insurance Value Chain



Issues no different to traditional insurance but importance of individual items in value chain varies

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Role of micro insurance in healthcare

- **Growing importance** of health products being provided under micro-insurance
- Model of **delivery varies** between regions
- **Access to healthcare constrained by:**
 - Available funding
 - Availability and standard of public health services
- Much health service **services** are provided by **non-State** entities who are trusted more than the state
- Hence, '**full service** micro-insurance model' has often been provided in many settings
- Health **product proposition** more complicated than life

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Health micro insurance products

- Defined package of benefits provided on a **voluntary** basis
- Target population is not the poorest but the '**working poor**'
- Often have evolved out of microfinance agencies
- Traditional **distribution channels** do not work



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Product benefit considerations:

- Benefits must be relevant and decided through **involvement** of potential beneficiaries
- **Fixed benefits** rather than indemnity based benefits
- Risk sharing with potential beneficiaries through use of **co-payments** commonplace
- Most common are primary care benefits as meets need and allows an affordable premium to be charged
- However, greatest need is for catastrophic benefits
- Delivery model allows **cost controls** to be introduced thereby constraining costs

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Product benefit considerations:

- Often benefits for '**non-insurable**' risks provided as events where high likelihood of event happening covered, e.g. GP visitation
- Even, benefits which are certain to be provided can be provided to incentivise take-up or meet real need, e.g. ART-HIV
- **Premium collection** should be simple and flexible approach must allowed, e.g. Seasonal workers
- Theory is faster access provides better health outcomes thereby reducing long-term cost
- **Different products** are required to different needs of each country

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Pricing considerations:

- Significant **lack of data** for pricing purposes
- Need for **proxy data** from other jurisdictions, undertake household budget surveys
- **Pricing methods** may need to be more complex for certain illnesses
- **Scale** is likely to be small
- Consequent significant **anti-selection** opportunities
- Should be managed as far as possible but different than traditional insurance
- **High fixed costs** may not be allowed for in pricing basis

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Pricing considerations:

- **Pay-back period** should be seen as long-term rather than medium term
- Small size leads to perhaps **variability of experience**
- **Risk pooling** between schemes should be encouraged, e.g. Networks, Social Re concept
- **Premium collection compliance** may be low but still should be **premium collection flexibility**
- Flat premiums usually applied effectively **community rating**
- Need to support with **appropriate regulations**, e.g. Risk solidarity

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Capital and micro insurance

- Having **access to capital** is a key consideration for micro-health insurance entities
- **No different to traditional insurance** markets capital is needed to provide, among other things, a buffer against adverse experience (i.e. claims, premium, administration)
- Capital may be provided through different methods including direct outlay by the insurance entities themselves
- To provide capital directly and in the absence of other sources, micro insurance entities must build up the capital from funding collected with the premium

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Background

- However, for MIUs this approach to accessing capital can be expensive for many reasons including:
 - No historic experience, increasing uncertainty and with it also capital requirement
 - Variability of experience may be higher given the size of the groups
 - Insurance processes adopted by a MIU may be more expensive than for mainline insurance entities
- Yet, price (i.e. the premium cost) is a key consideration in two respects:
 - Is the price affordable for the insured population?
 - Is the variability of the price low enough to provide certainty for the insured population?

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Background

- Dror and Armstrong (2006) have shown the capital loadings needed to reduce the risk of insolvency to a pre-determined acceptable level based upon claims only
- **Purpose of this paper** was to:
 - To examine the option of using reinsurance as an alternative to retaining capital at same confidence levels
 - To make initial comparative cost estimates of the alternative
 - Further joint work has showed benefit of using reinsurance less than cost of raising capital

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Reinsurance as an alternative capital source

- Instead of self-financing capital, a MIU can cede certain parts of the risk to an external reinsurance agency
- Reinsurance can be considered as alternative when:
 - It reduces the risk of adverse experience to another underwriter (the reinsurer)
 - It reduces variability of experience
- However, the reinsurance comes at a cost – premium
- It also does not remove the need for capital for the risk not ceded
- Reinsurance can be provided by a benevolent government
- Alternatively it could be provided by a commercial reinsurance entity

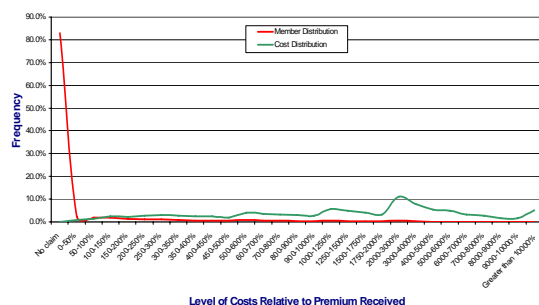
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Approaches to reinsurance

- Many forms of reinsurance exist; for micro insurance entities most likely best forms should:
 - Pass **sufficient level** of risk
 - Be reasonably **straight-forward and understandable**
 - **Reduce variability** significantly
- A quota share arrangement does not reduce variability sufficiently --> inappropriate
- Excess of loss reinsurance may suit better; losses below the limit are retained by the micro insurance entity

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Distribution of Claim Size



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Role of actuaries

- Need for **expertise** to ensure firm foundation to establishment and functioning of MIUs
 - However:
 - Should be much **broadier** than traditional role
 - **Less conservative approach** needed for pricing & capital management
 - Many **challenges** exist – e.g. Lack of data, convincing people of good management practice
 - **Communications** important
 - Despite these issues worthwhile experience for actuaries to become involved
 - IAA Health Section have developed task team on this topic
- Be prepared to challenge traditional actuarial methods**

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Moving forward

- **Growing appeal** for micro health insurance
- **Requires support** of various institutions to provide capital
 - Reinsurance entities
 - Government
- Need for development of **relevant expertise**
- Encourage **innovation in distribution**
- Encourage **community involvement**
- Requires **flexibility**
