Joint Colloquium of the IACA, PBSS and IAAHS Sections of the International Actuarial Association

Westin Copley Place Hotel, Boston, U.S.A. – 4-7 May 2008

Health Insurance for the Rural Poor

Brent Walker

Profile of the Rural Poor - APL

- Above Poverty Line
  - May be a farmer or a laborer
  - Income is sporadic – often comes in concentrated time-spans
  - Has assets but may be not many
  - Probably literate but not always
  - Consists of family with some children and possibly father's aged parents
  - Can't afford extensive private hospital care without resorting to extended family resources, selling productive assets and resorting to moneylenders.
  - No health insurance but probably can afford a modest premium

Profile of the Rural Poor - BPL

- Below Poverty Line
  - May be from a caste or tribe
  - May be a laborer or casual worker
  - Income is very sporadic – often living in the non-cash economy
  - Has few assets if any
  - High % will be illiterate (In comparison with APL)
  - Consists of family probably with children and possibly father's aged parents
  - Can't afford any hospital care or expensive specialist medical care without resorting to extended family resources and moneylenders.
  - No health insurance and little means to pay for it

Rural Health Insurance Premium Challenges

- APL
  - Premium income to be timed to periods of maximum income of policyholder
    - Could be seasonal but only if not already committed at time of receipt
  - Insurer will have some problems with communication but mainly due to the unfamiliarity of health insurance concepts.
  - Some subsidies may be necessary at least until the insurance products have been fully accepted by the public.
- BPL
  - Premiums likely to be largely unaffordable at almost any price.
    - The little income obtained could be seasonal and fully committed when received.
  - Insurer will have significant communication problems with insured persons due to illiteracy levels as well as unfamiliarity of health insurance concepts.
  - Significant subsidies are necessary – possibly at or near 100% particularly in early stages

Rural Health Insurance Marketing Challenges

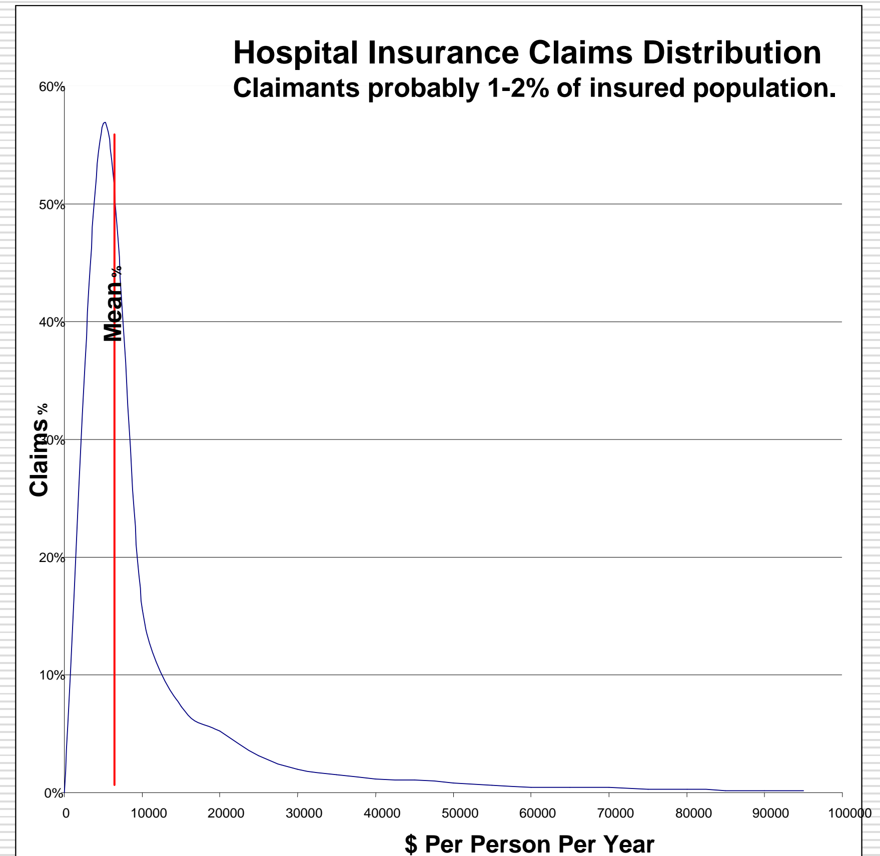
- Who will market and distribute the insurance products?
  - Insurers will have to find intermediaries who are trusted by rural people
- How much will the marketing cost?
  - Insurers will have to find very low or zero cost distributors.
- Will there be trailing commissions?
  - These will probably be unaffordable.

Organizational Challenges

- Entry barrier to new insurers is very high
- Mix of high quality and not-so-high quality health services (primary, secondary and tertiary level).
- Some services are probably not insurable (in the normal sense)
- Supervision of intermediaries – motivation is important.
- Issues dealing with large numbers of insured persons each paying (or having paid on their behalf) – relatively small premiums.

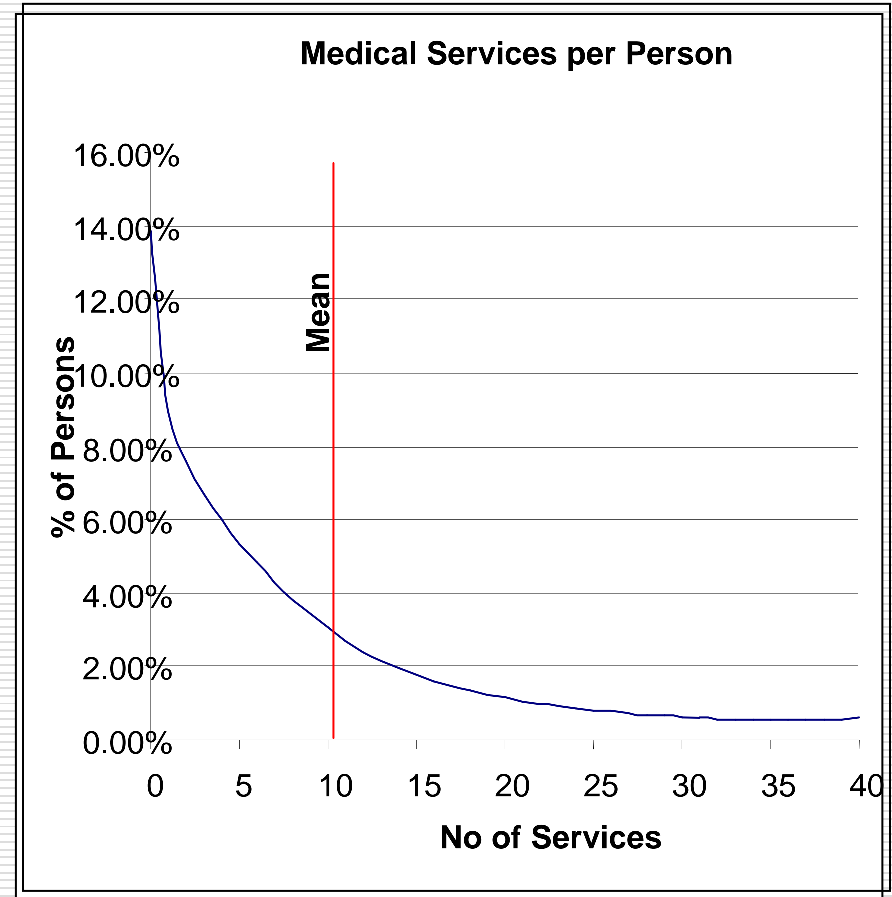
Technical Actuarial Issues 1

- Hospital claims distribution has a long tail that wags quite a lot.
  - Due mainly to hospitals being very complex organizations that function best at levels of bed occupancy rates below 80% to 90%.
- Management of hospital insurance needs relatively large numbers of risks for relatively smooth progression of claims.
- Management of modern contractual arrangements between insurers and providers need large numbers of risks to obtain required efficiencies



Technical Actuarial Issues 2

- Medical claims distribution for in-hospital services has a tail that wags a lot.
  - Same issues as for hospital insurance
- Medical claims distribution for ambulatory primary care services has a tail that doesn't wag a lot.
  - Could have relatively small risk pools with relatively low volatility risks for insurers.



Open & Closed Health Systems Concept

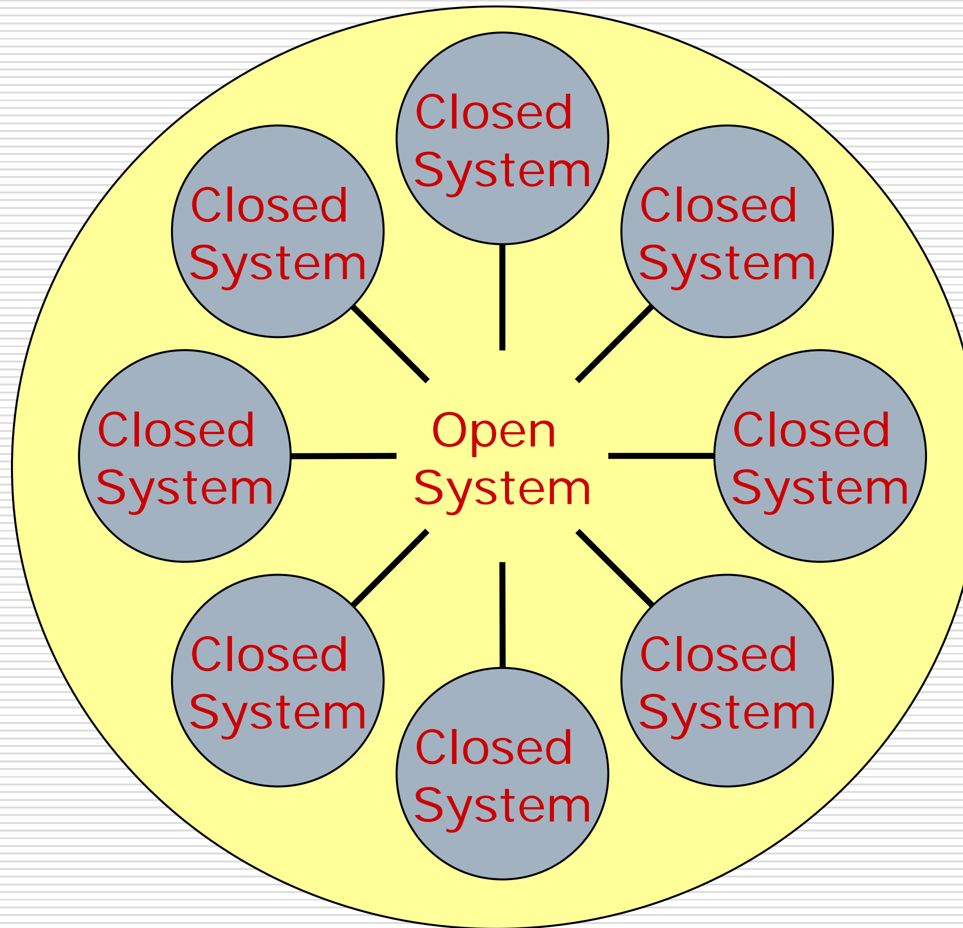
- Open health systems are those that have total costs that vary considerably over time due to variable inputs caused by system operations normally being maintained at sub-optimal levels. Open health systems also include those systems that are subject to highly variable external inputs.
- Closed health systems are those that have fixed inputs at any finite timeframe and therefore operate at fairly predictable levels and so have reduced cost volatilities.
- A hospital and specialist medical system would be regarded as an open health system. A primary care system for a geographically defined population would be an example of a closed health system.

Insurance of Open and Closed Health Systems

- Open systems require large aggregations of risks for management of insurance volatility risk. Also large aggregations of risk give economies of scale to the complex claims management and benefit design (contracting and provider network) processes.
- Closed systems can operate with relatively small numbers of risks in defined geographic areas, since they can operate with low insurance volatility risk and basically only need local organizational skills. Benefit structures can be very unsophisticated and may only consist of fee for service and/or capitation arrangements.

Insurance of Open and Closed Health Systems

The open system insurer looks after all the open system liabilities for each of the associated closed systems, which collect all the premiums but only look after the closed system liabilities.



Open system insurers could be seen as reinsurers of closed system organizations. Or, closed system organizations could be viewed as collecting agents of open system insurers that provide some prepaid services.

Features of Closed System Health Financiers

- Will be local to a geographic area (village or town). There may be more than one financier in a locality.
- Will contract with local health care providers or otherwise manage health care supply though competitive purchasing arrangements.
- Depending on local preferences, they will either fully cover or partially cover the provision of healthcare in that geographic area.
- Will collect ‘premiums’ from ‘members’ to cover all (or perhaps part) of the cost of the local closed system services that they cover.
- Will receive subsidies as necessary to meet the remaining cost of insurance of their ‘members’ for hospital and specialist treatment and any subsidy provided for the local closed system services.
- The main concept is to use locals to manage the local health care arrangements. However some central authority (Government, NGO, or perhaps an open system insurer) will provide training and guidance and perhaps some systems and facilities.
- Many different variants are possible. Experiments should be encouraged to find best variants.
- These organizations should be viewed as prepaid healthcare organizations or agents of the open system health insurers.
- We could call them Rural Health Organizations (RHOs).

Features of Open System Health Insurers

- Will be large sophisticated health insurers with a wide geographic spread of risks aggregated via the closed system health financiers (agents).
- Will contract with preferred public and private hospitals and specialists (perhaps via the hospital contracts) to provide the care reasonably expected from aggregated risks. They will probably purchase some care outside of the preferred system in order to get optimal efficiencies and lowest prices from preferred providers.
- Will collect premiums from closed system financiers (agents) to cover all (or perhaps part) of the cost of the risks that that they cover.
- Will receive subsidies as necessary to meet the remaining cost of insurance of their 'members' for hospital and specialist treatment and any subsidy provided for the local closed system services. These subsidies could come either via the agents or directly from the subsidizer.
- The main concept is to use insurance professionals to manage the risks being covered by these insurers. Possibly some of the expertise could be imported.
- There would eventually be strong competition between insurers in this market. Competition is necessary for the health sector to flourish over the medium to long term.
- These are true Regional Health Insurers (RHIs).

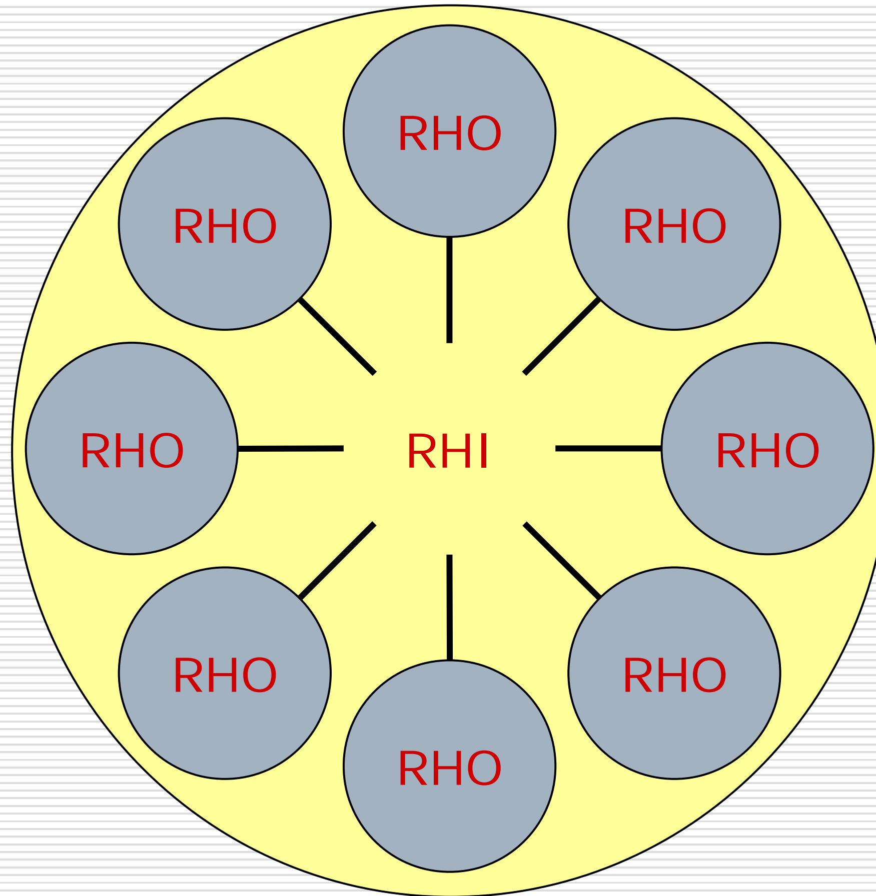
Other Considerations

- Very expensive for large rural health insurers to organize and manage local primary care service networks
- Inefficient to bypass local knowledge
- Will cause significant issues with national and state medical organizations if large insurers commenced contracting with non-medical primary care providers. However local rural health organizations (RHOs) would have much more freedom to act in 'members' best interests as individually they would not be threatening to organized medical interests.
- Local RHOs should be very cheap revenue collectors for the large open system health insurers. They add value by organizing and paying for local services as well as facilitating the open system risk coverage.
- Local RHOs would be independent of RHIs and would be able to compete for RHI business and subsidies from State or Federal Governments and NGOs.
- Require the use of Community Rating – probably on the basis of 1 premium for each life covered.

Possible Pathways

- Regional Health Insurers (RHIs) proliferate and eventually closed system organizations (RHOs) get sponsored by RHIs to better organize the distribution and collection system and provide elements of primary care networks.
- PHCs (primary health care facilities) in villages spontaneously become RHOs, collect revenue for existing RHIs and, at the same time, better organize health care delivery at village level. They do this because of there are targeted subsidies available from Government to encourage such developments.
- RHIs deliberately enter the financing of primary health care by setting up networks of RHOs – although their motives are primarily to organize secure premium collection facilities.
- NGOs try to set up both RHIs and RHOs.

The Regional Health Insurance Distribution Model



RHIs

- The Yeshasvini Scheme comes closest to being an RHI.
  - Yeshasvini reached 1.6 million (mostly) low-income persons in its first year of operations. It grew to 2.2 million in second year but membership declined in Year 3 to 1.45 million largely because the premiums were doubled due to the withdrawal of Karnataka Government subsidies. It now has some 2.3 million members.
  - The trust partners with cooperatives in Karnataka. Yeshasvini uses the cooperative structure to provide information to members and to collect premiums. It is administered by a third-party administrator (TPA).
  - Private hospitals primarily provide care. They contract at approximately30% less than other patients are charged because they have excess capacity.
  - The product is affordable to the poor because it focuses on high cost/low frequency events. It does not cover basic care but there is a free outpatient clinic. Annual premium per person per annum is currently R 120 (US$ 3.00).
  - Actuarial advice and expertise at an early stage would be advisable before setting up large insurance schemes similar to Yeshasvini.

RHOs

- Several possibilities
  - Existing PHCs form into RHOs
  - Rural primary care providers (not necessarily medical practitioners) form RHOs
  - Co-operatives form RHOs.
  - Senior people in a village form an RHO.
- If schemes are being sponsored by NGOs or State Governments then a minimum specification for the formation of an RHO could be issued to assist such organizations to develop.

Subsidies

- Subsidies would flow to approved RHOs providing they are used to obtain insurance from authorized RHIs.
- Subsidies could be targeted at village level through some process that would identify relative poverty/affluence levels.
  - Subsidies would be dependent on:
    - Enrollment in RHI
    - Provision of pre-paid primary care services in local area
    - Some form of appropriate governance provisions
- Ideally subsidies should come from a central source
  - Perhaps these should come from a central Health Insurance Commission in each state
    - The Health Insurance Commission could be set up under the control of the Minister of Health but would only be responsible for purchasing health services.
    - The Health Insurance Commission would not be permitted to in any way be directly involved in the delivery of health services.

Competition

- There should be RHIs competing for business from RHOs.
  - Consequently there will have to be full portability of health insurance coverage between RHIs
- There should be – or there should be the opportunity for competition between RHOs.
  - Consequently there will have to be full portability of health insurance coverage between RHOs.
- Competition between RHOs would eventually be based on the ability of the RHO to deliver the extra services and the cost of the RHI that the RHO contracts with.
- RHOs would be free to contract with any RHI that delivers the services necessary for the people signed up with the RHO.
  - However an RHO should only be permitted to contract with one RHI at any one time. This means that the whole of the population covered by the RHO will be insured with one RHI.

Summary

- Use local knowledge to organize local rural (closed system) health services.
  - These are called Rural Health Organizations
- Use expert insurance systems to organize and deliver benefits for open health system services.
  - These are called Regional Health Insurers
- Provide for subsidies at entry point to RHO's
  - A condition of becoming an RHO is that it must at all times contract with one RHI
- Require the use of community rating
  - Require full portability of cover from one RHO to another and one RHI to another.
- Ideally have the subsidies to the system coming from one central source in each state
  - A Health Insurance Commission would be an appropriate mechanism.

END