



**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**



# **Micro Health Insurance**



**Plenary Session HM1  
Monday 5 May 2008**

**Presentation by David Dror, PhD, DBA**



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# Micro health insurance

1. “Micro” – relates to the ***social characteristic*** of the organization: at the lower level of social organization
  - Entire country – macro
  - District/Province/State – meso
  - Village/small group – micro
- Micro relates to ***small claims load*** (a function of small group size)

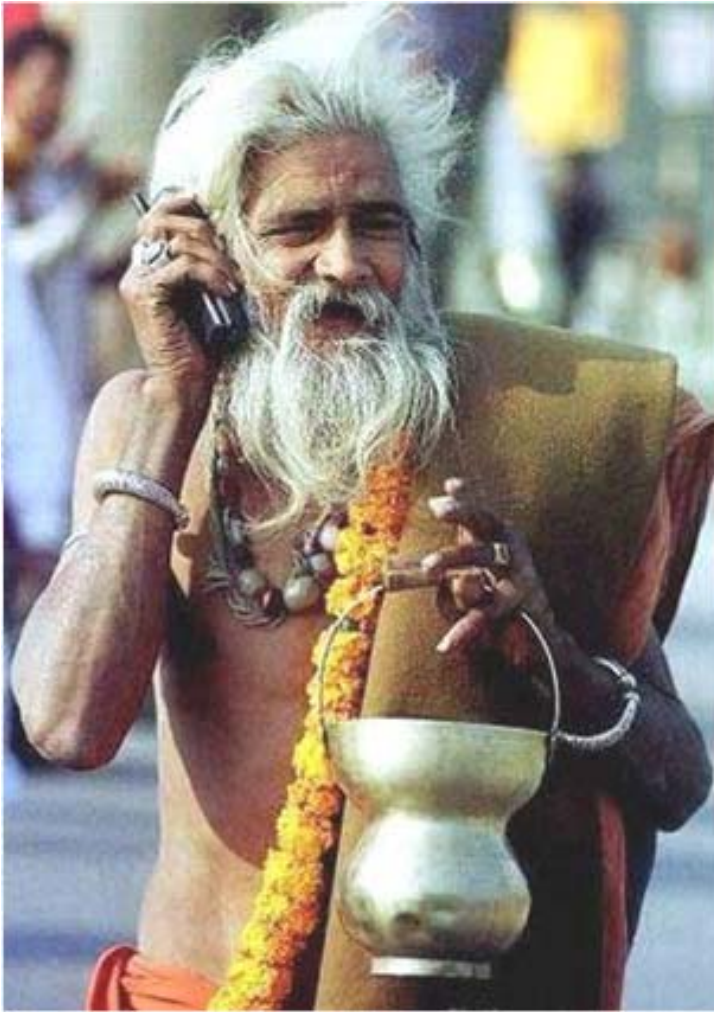
# Fundamental assumptions

1. Clients must pay a premium
2. Clients paying OOPS have much choice, which they do not wish to lose
3. Affiliation of MIUs is voluntary
4. Voluntary payment must offer an attractive value (when value is not clear or not attractive, insurance cannot be sold)
5. Insurance can be sold only by trusted insurers. The huge disproportion of power/knowledge (and ineffective arbitration by judiciary or regulators) leads to low levels of trust

# The 4 “marketing Ps” are different

- Product
- Price
- Place
- Promotion

# Product



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# Price



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# Place



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# Promotion

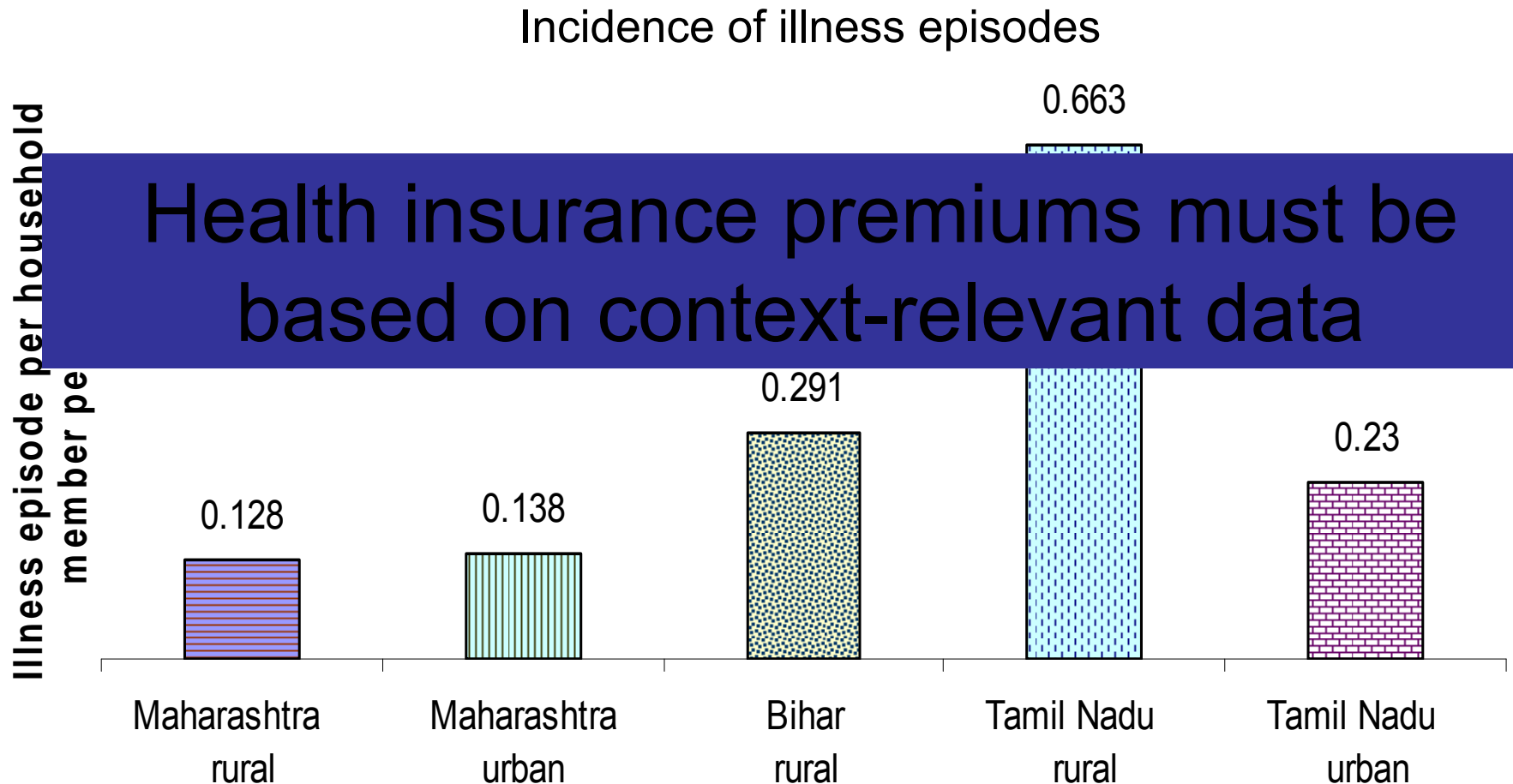


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# Data: “one-size” or local?

- Significant differences across locations in
  - Needs
  - Demand
  - Supply
- Calculating unit cost or incidence based on national data (or uniform estimates) leads to erroneous estimates

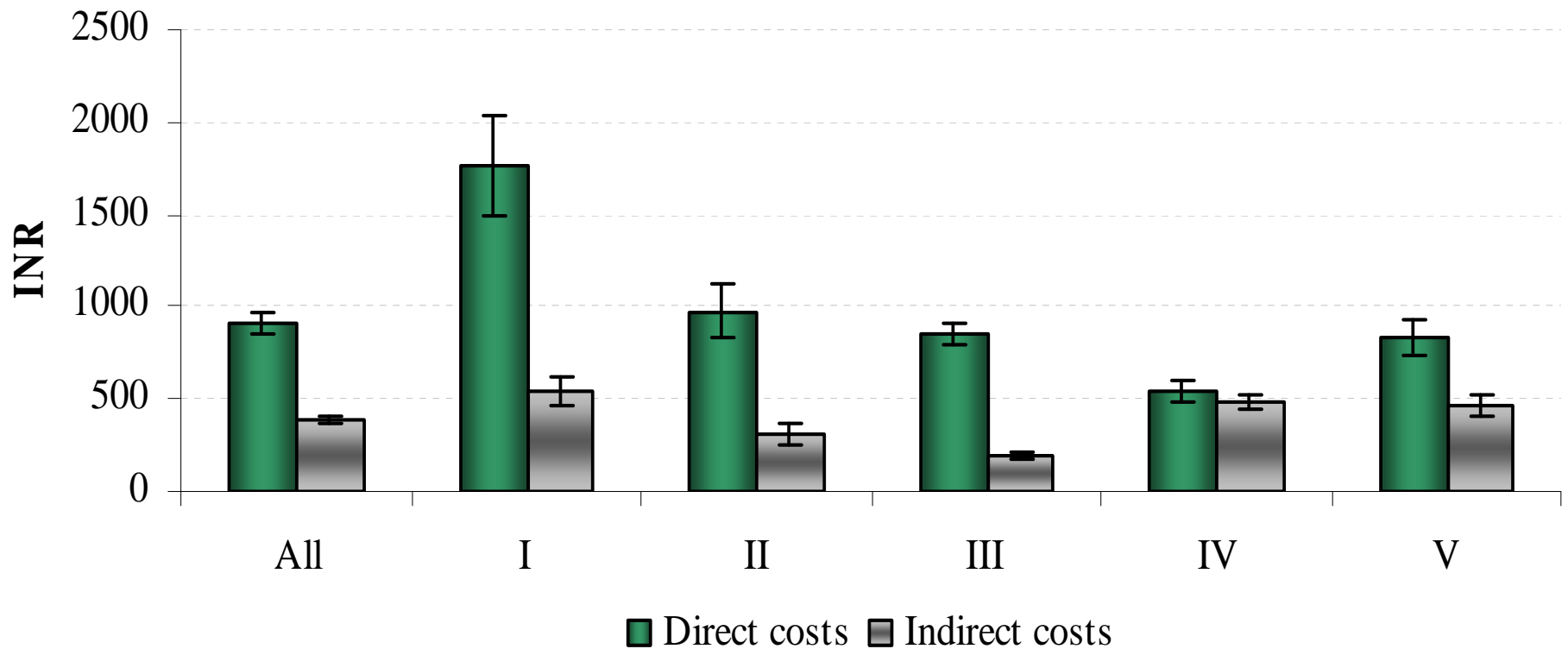
# Differences in Incidence of illness



Source: **Dror, DM:** Why “one-size-fits-all” health insurance products are unsuitable for low-income persons in the informal economy in India, *Asian Economic Review*, 49(1):47-56. (Hyderabad) April, 2007. **U.S.A. — 4-1 MAY 2008**

# Differences in cost of illness

## Mean cost of an illness episode

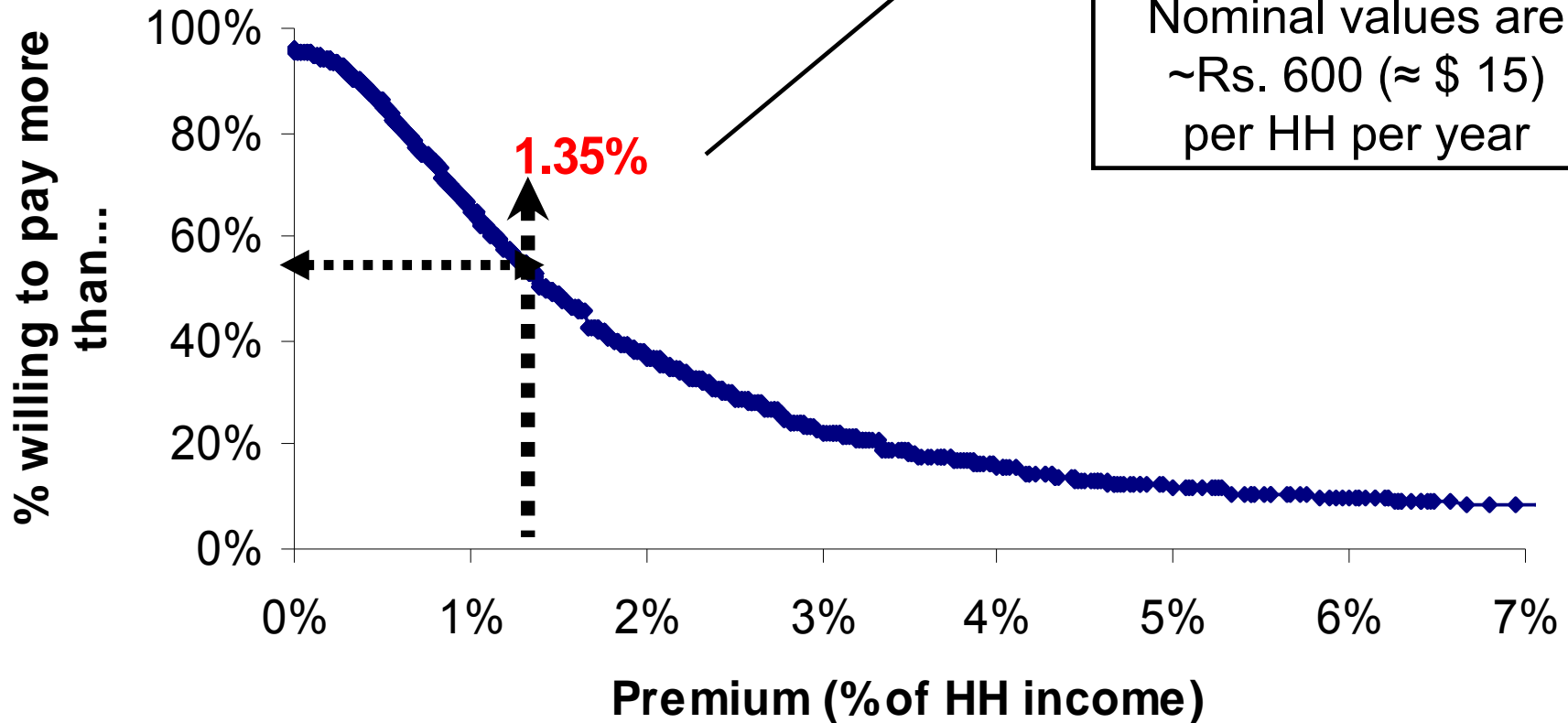


# Pricing: Actuarial vs. WTP

- In commercial insurance, premiums are set through actuarial estimates
- Actuarial estimates include a large margin of safety to compensate for errors
- At the micro level, premiums are often determined according to local WTP
  - Hence, rationing must follow

# Evidence: WTP (in 7 locations in India)

WTP as % of annual HH income



Source: Dror DM, Radermacher R, Koren R: *Willingness to pay for health insurance among rural and poor persons: Field evidence from seven micro health insurance units in India.* Health Policy, (2007) 82(1):12-27

# Package composition = Rationing

- Clients with choice wish to retain choice
- They can ration their package better than any outsider
- This has been experimented successfully through CHAT: “Choosing Healthplans All Together”
- (project demo video)

# CHAT



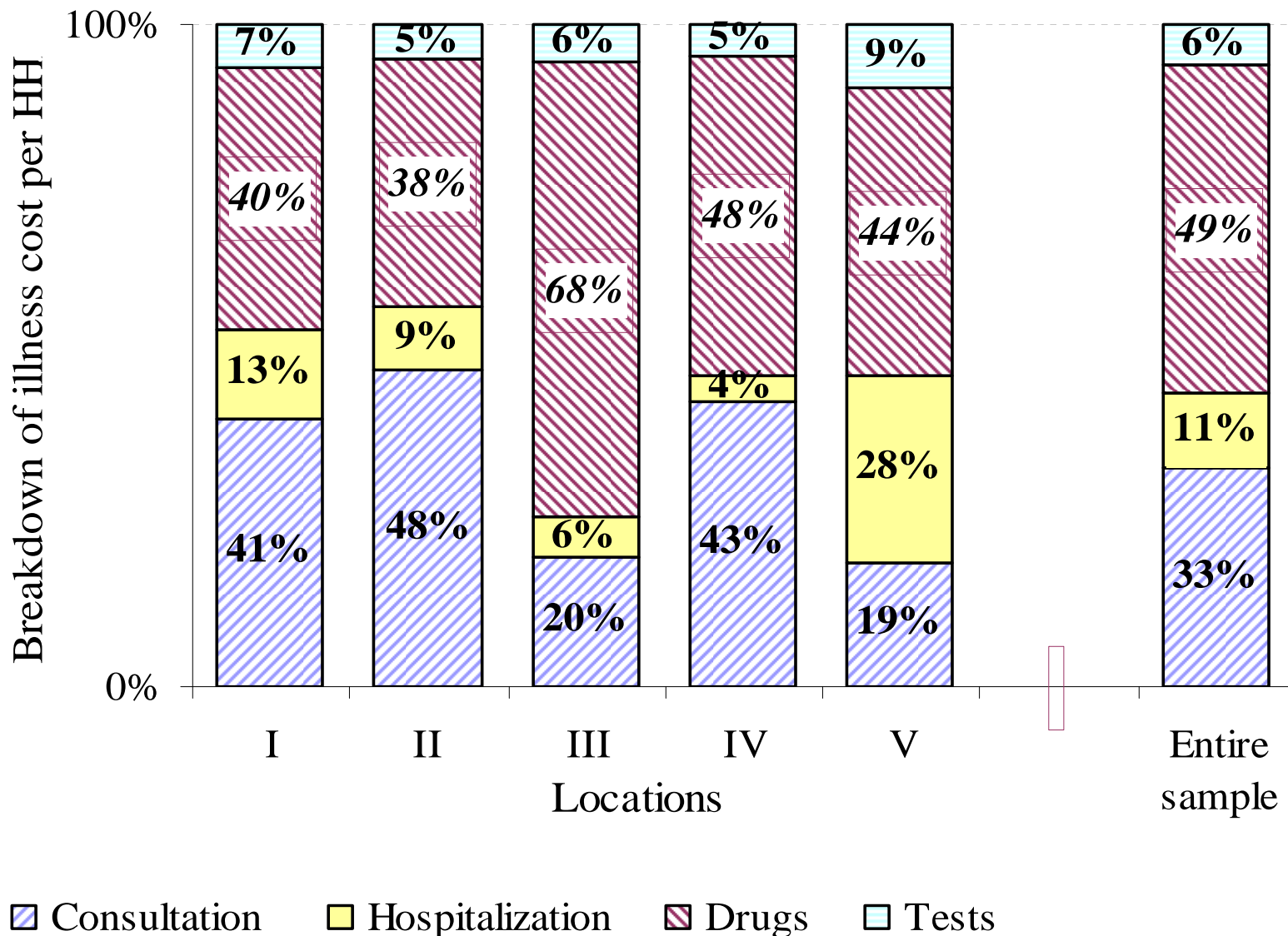
# CHAT: Participants' Choice of benefits

	"Package"	No. of groups	% of individuals	Cumul. %
1	OP(b) + IP(b) + T(b) + D(b)	6	26.8%	26.8%
2	IP(b) + T(b) + D(b)	8	31.8%	58.6%
3	OP(b) + T(b) + D(b)	3	13.9%	<b>72.5%</b>
4	OP(b) + IP(b) + D(b)	3	11.9%	<b>84.4%</b>
5	OP(b) + IP(b) + T(b)	1	4.0%	88.4%
6	IP(m) + D(b)	1	4.3%	92.7%
7	T(m) + D(b)	1	4.0%	96.7%
8	IP(h) + T(h)	1	3.3%	100.0%

Legend: OP= Outpatient; IP= Inpatient; T= Tests; D = Drugs; (b) = basic; (m) = medium; (h) = high

Source: Dror DM, Koren, R; Ost A, Binnendijk, E; Vellakkal, S, Danis, M: *Health insurance benefit packages prioritized by low-income clients in India: Three criteria to estimate effectiveness of choice*, **Social Science & Medicine**, February 2007 **64**(4): 884–896

## People chose the benefits that reflect highest aggregate costs (drugs) and catastrophic costs (inpatient)



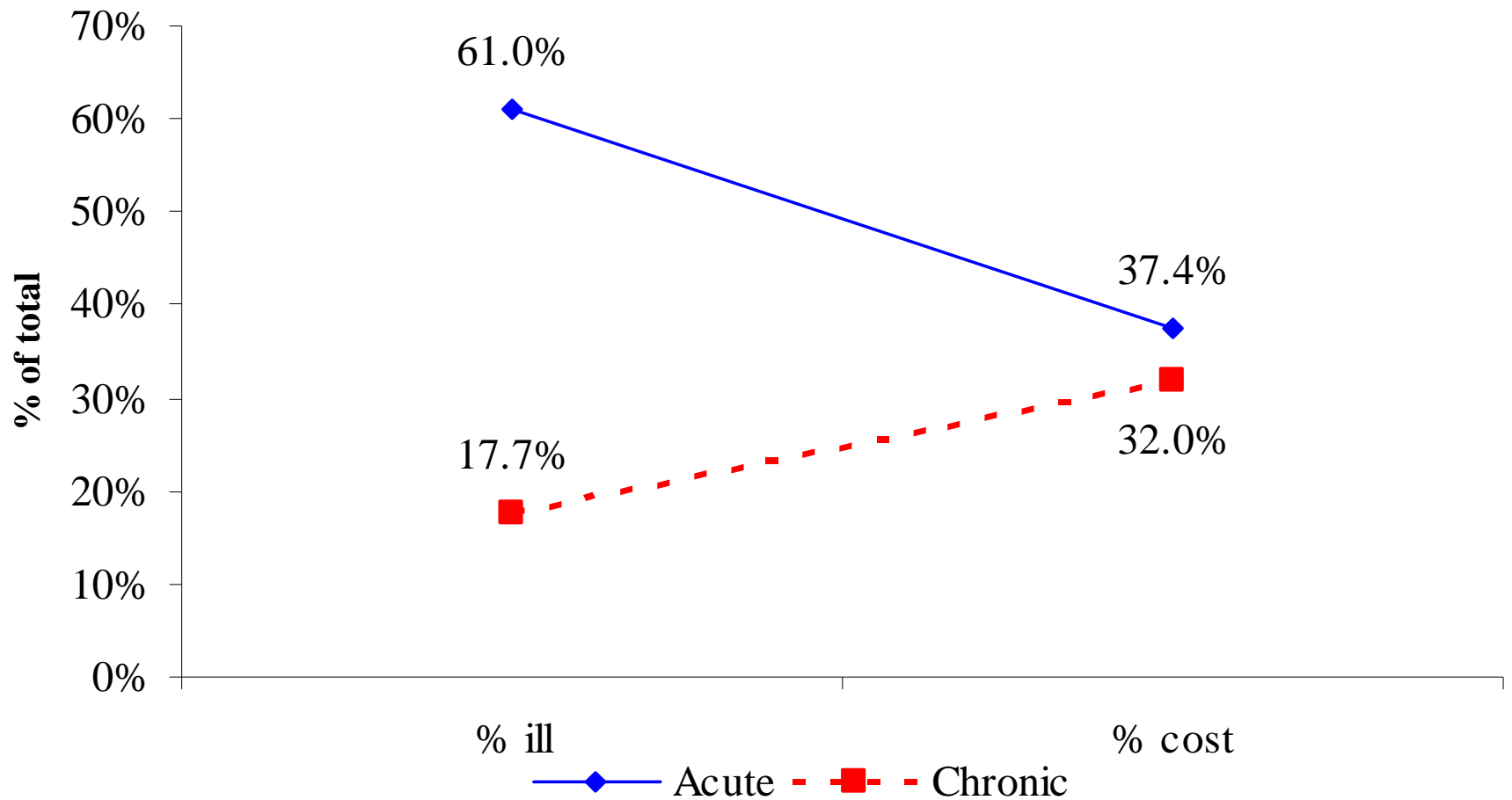
# Typical commercial “microinsurance” products

- Are limited to hospital costs only
- Persons under 5 and over 55 are excluded
- Pre-existing conditions excluded
- Certain new illnesses excluded as well
- Very low caps (SEWA ~ \$ 50 p.p.p.y;  
others ~ \$125 p.p. or \$250 per family)

# New trends in MIUs

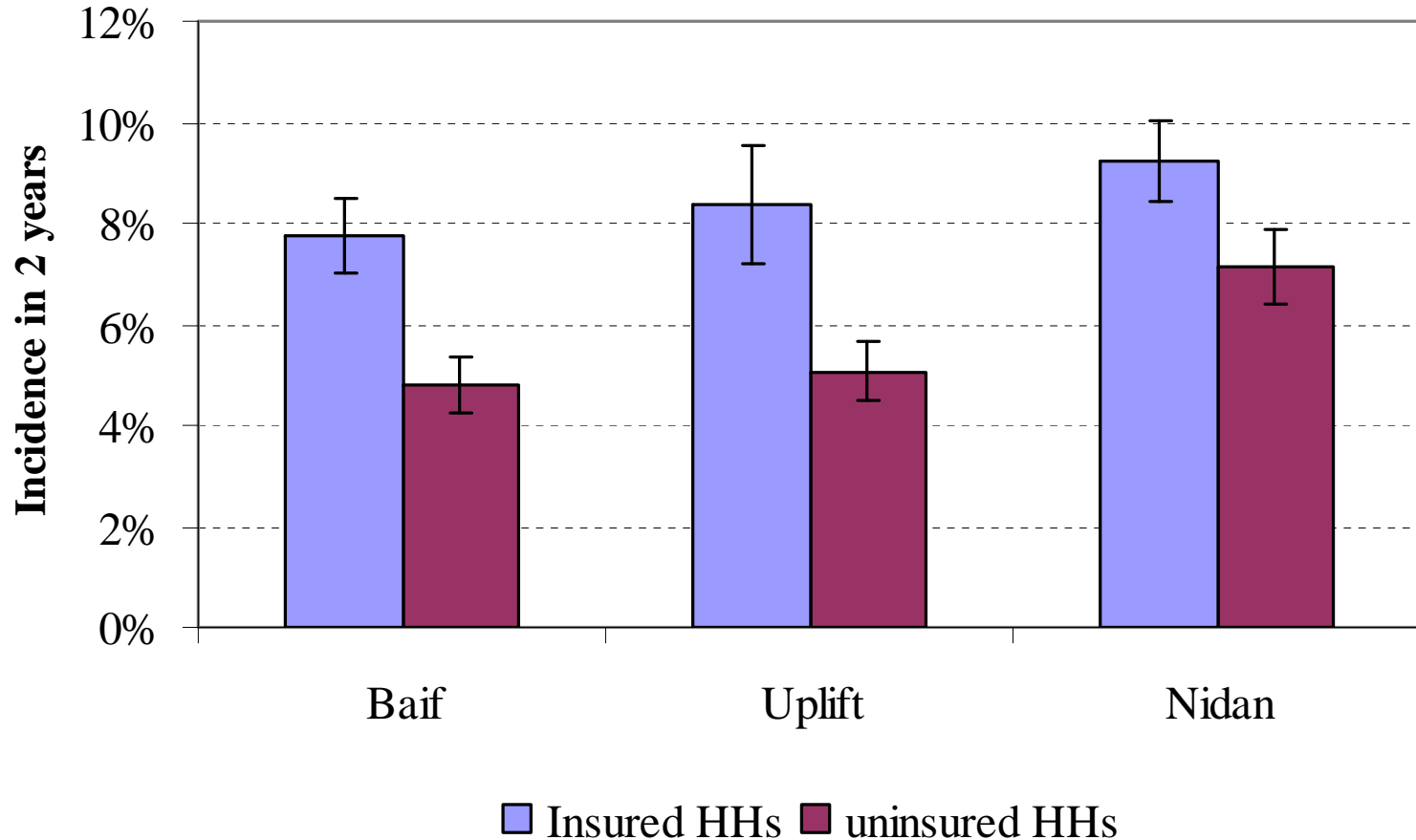
- An increasing number of schemes prefer mutual organization to partner-agent to achieve
  - Guaranteed continuity of coverage
  - Stable premium experience
  - Better/faster claims settlement process
- Some insurers offer “High deductible” cover of the long tail (up to a limit) / quasi-reinsurance
- Group affiliation is on the rise, to enhance negotiating power

# Snapshots of evidence: Epidemiology

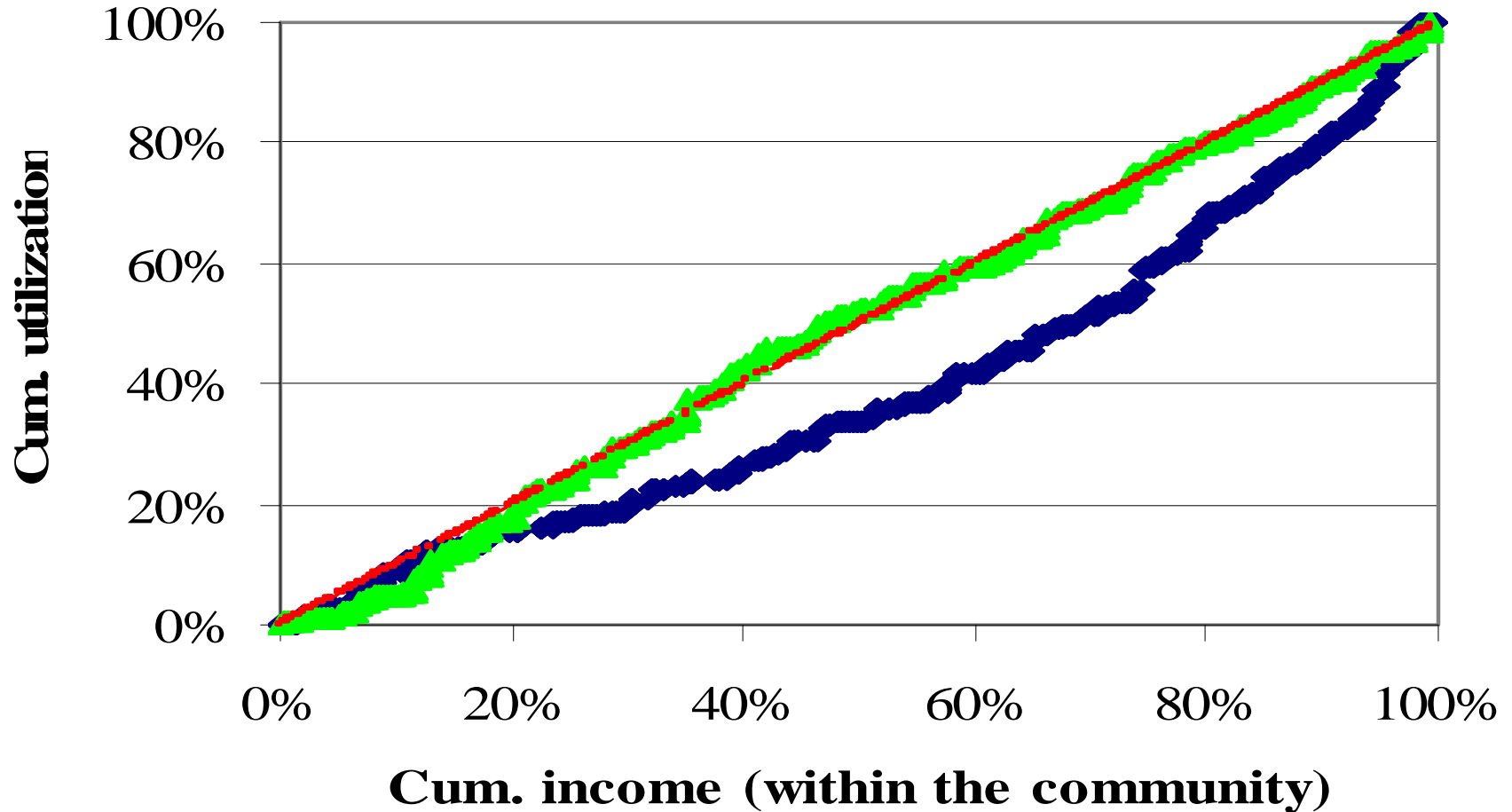


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# Evidence: Improved IP utilization (3 MIUs in India)



# Philippines: + equity among insureds



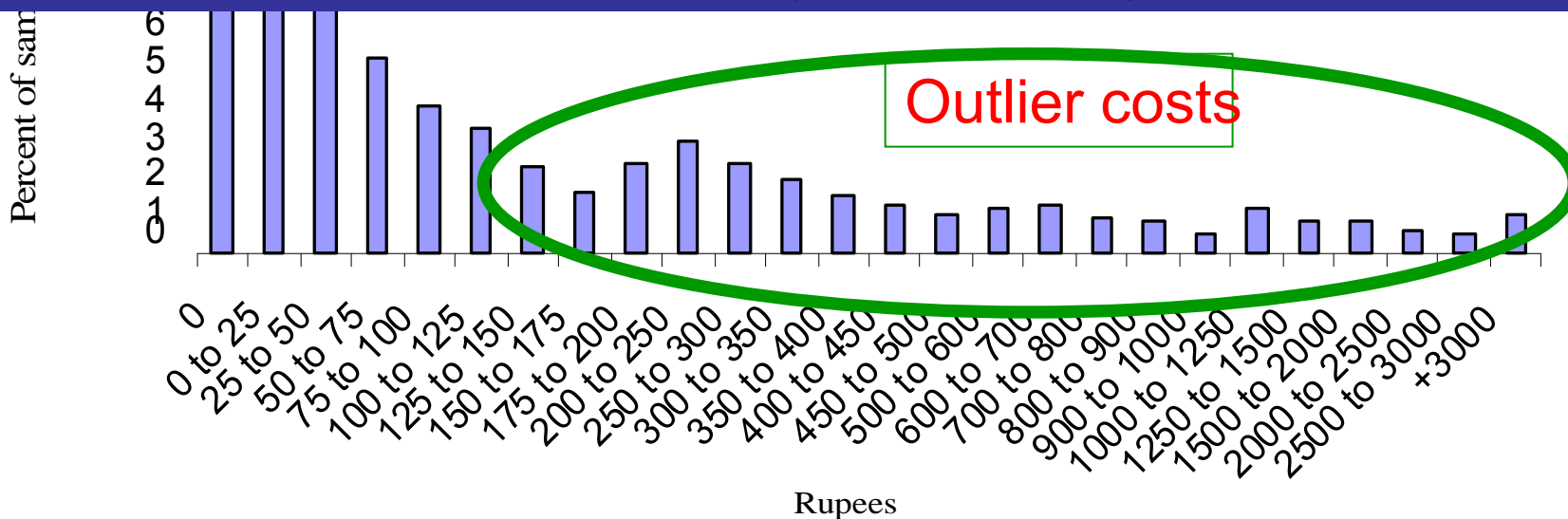
◆ Uninsured    ▲ Insured    - - Equity line

# Evidence: the real actuarial issue is the long tail

Distribution of insurable costs  
per household member in 3 months

45

WTP could cover median cost of benefits  
Outlier costs require **reinsurance**  
(and subsidy financing)



# The Value Proposition of Social-Re

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# Problem solving approach

**We enable communities to solve problems through:**

- community affiliation
- linking flow of money with flow of information
- Recognizing vested interest to solve the problem
- We make financial choice credible, understandable, fun

# Core principles

- **Subsidiarity**
- **Mutuality**
- **Sustainability**

# Democratic thinking

- Better access to relevant **information**
- Real **choice** between relevant options
- Involvement in Governance & **accountability** (community claim committees, ombudsman, insurance activists)

# Innovative solutions

- Building **awareness** among clients (Micro Insurance Academy)
- Developing many different **alternatives to underwrite risk**
- Technological solutions for **support** services
- Doing more about less in risk: **reinsurance of outliers** (= the expensive “long tail”)

# The poor are insurable

- The poor are aware about their risks
- The poor are not necessarily higher risks
- The poor make many financial choices
- The poor are willing to pay
- Most of the cost can be covered by the premium
- **The poor are insurable provided they get an attractive deal**

# The insurance industry challenged to innovate

1. To offer more flexibility in customizing benefits
2. To calculate premiums with more transparency and relevant local data
3. Shift the core proposition to insurance of outlier risks rather than capped (truncated) risks, and forecast the potential impact of catastrophes.
4. Reduce transaction costs + loadings from 50%-70% to no more than 30%
5. Determine the level of reserves needed under several assumptions of solvency, and offer MIUs investment programs cum surplus relief
6. Recognize that in the BOP market, the social dynamics drive many daily choices. Marketing will have to be changed to suit the social fabric.

# Thanks and contact

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Thank you

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