Improving Equity through Health Systems:

Findings from Asia of the Equitap Collaboration

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Outline

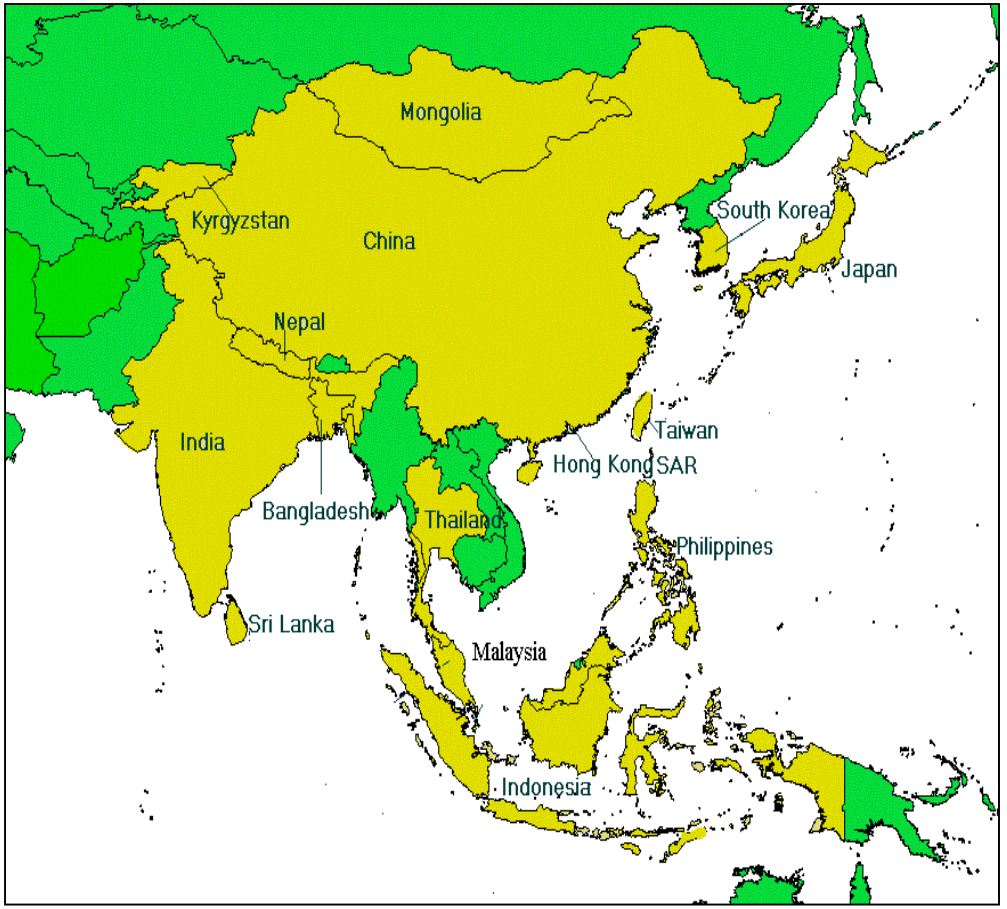
- The Equitap Collaboration
- The Research
- Selected Findings
- Future Agenda
- >Tax-funded systems

The Equitap Collaboration

www.equitap.org

Equitap Consortium

- Collaborative research project conceived, initiated and coordinated by Asia-Pacific NHA Network in 2001 to examine equity in health systems
- Research groups in Bangladesh, Nepal, India, Sri Lanka, Thailand, Philippines, Indonesia, Malaysia, China, Kyrgyz, Mongolia, Taiwan, Hong Kong SAR, Korea, Japan
- With invited European collaborators: Erasmus University, London School of Economics



Equitap Funding

European Commission
・INCO-DEV Grant ICA4-CT-2001-10015

Rockefeller Foundation
・WHO Millennium Grant to Asia-Pacific NHA Network

Ford Foundation
・"Social Protection in Asia" grant to partners

World Bank
・Support to van Doorslaer and O'Donnell for development of technical guidelines
・Gates Foundation "Reaching the Poor " grant to Ministry of Health, Kyrgyz Republic
・Grant to Ministry of Health, Mongolia for development of national health accounts

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Korea Institute of Health and Social Affairs, South Korea
・Support of EQUITAP research team

Ministry of Health, Malaysia
・Support of MoH research team

WHO South-East Asia Regional Office (SEARO)
・Support for Equitap workshops in Bangkok (2001), Kandalama (2005)

WHO Western-Pacific Regional Office (WPRO)
・Support for Equitap workshops in Hong Kong (2003), Kandalama (2005)

Where to find us

Equitap Working Papers

http://www.equitap.org/

Catastrophic payments for health care in Asia.

•van Doorslaer, Eddy, Owen O'Donnell, Ravindra P. Rannan-Eliya, Aparnaa Somanathan, Shiva Raj Adhikari, Charu C. Garg, Deni Harbianto, Alejandro N. Herrin, Mohammed Nazmul Huq, Shamsia Ibragimova, Anup Karan, Tae-Jin Lee, Gabriel M. Leung, Jui-Fen Rachel Lu, Chiu Wan Ng, Badri Raj Pande Rachel Racelis, Sihai Tao, Keith Tin, Kanjana Tisayaticom, Laksono Trisnantoro, Chitpranee Vasavid, and Yuxin Zhao. Forthcoming. ***Health Economics*** 9999 (9999):n/a.

The Incidence of Public Spending on Healthcare: Comparative Evidence from Asia.

•O'Donnell, Owen, Eddy van Doorslaer, Ravi P. Rannan-Eliya, Aparnaa Somanathan, Shiva Raj Adhikari, Deni Harbianto, Charu C. Garg, Piya Hanvoravongchai, Mohammed N. Huq, Anup Karan, Gabriel M. Leung, Chiu Wan Ng, Badri Raj Pande, Keith Tin, Kanjana Tisayaticom, Laksono Trisnantoro, Yuhui Zhang, and Yuxin Zhao. 2007. ***World Bank Economic Review*** 21 (1):93-123.

The hidden poor: health payments and poverty in Asia

•van Doorslaer, Eddy, Owen O'Donnell, Ravi P. Rannan-Eliya, Aparnaa Somanathan, Shiva Raj Adhikari, Charu C. Garg, Deni Harbianto, Alejandro N. Herrin, Mohammed Nazmul Huq, Shamsia Ibragimova, Anup Karan, Chiu Wan Ng, Badri Raj Pande, Rachel Racelis, Sihai Tao, Keith Tin, Kanjana Tisayaticom, Laksono Trisnantoro, Chitpranee Visasvid, and Yuxin Zhao. 2006. ***Lancet*** 368 (9544):1357-1364.

Equity in Health and Health Care Systems in Asia

•Rannan-Eliya R, A. Somanathan. 2006. In: Jones AM, ed. ***The Elgar Companion to Health Economics***. Cheltenham, UK: Edward Elgar Publishing Limited.

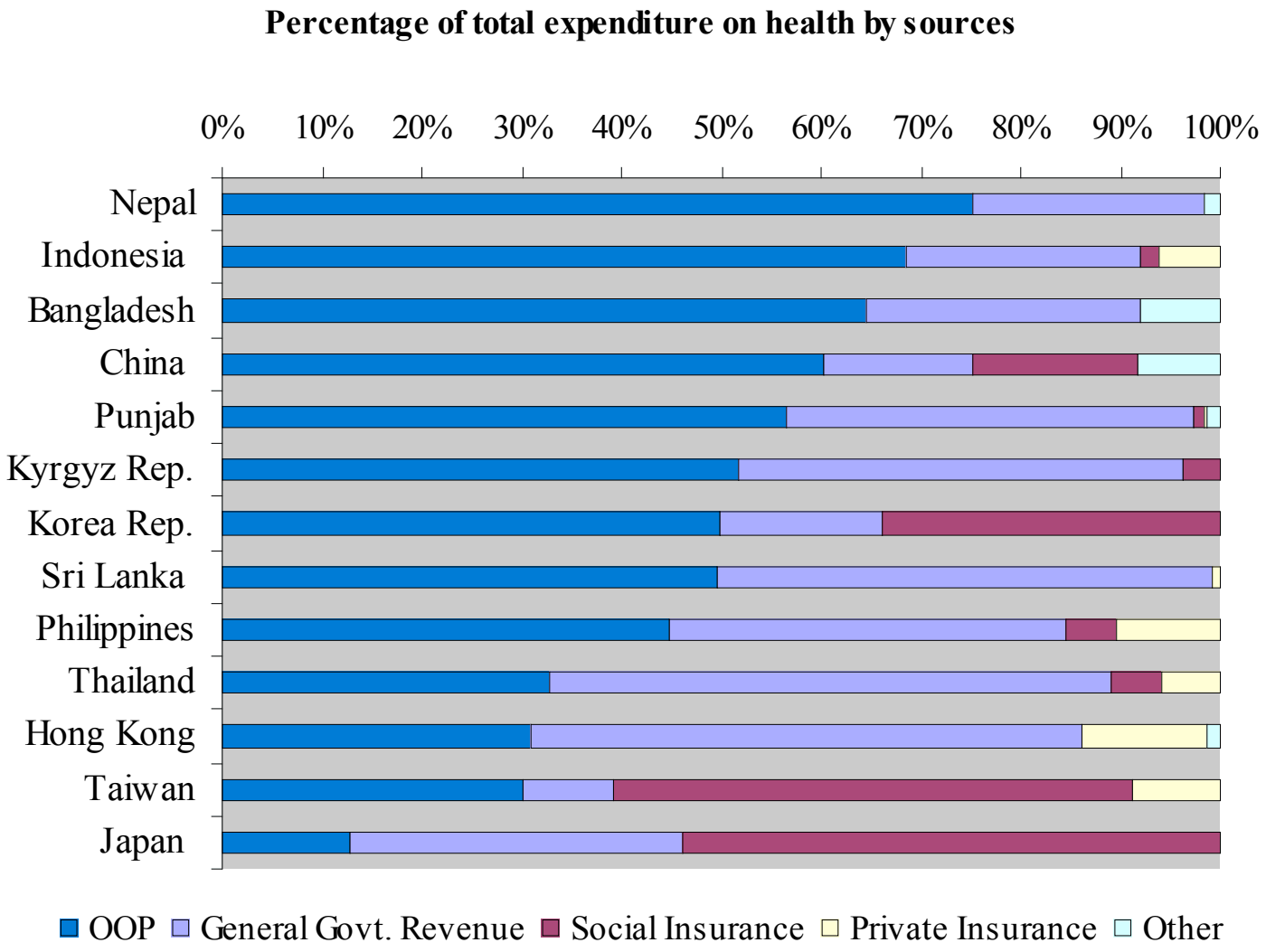
The Research

Analytic components

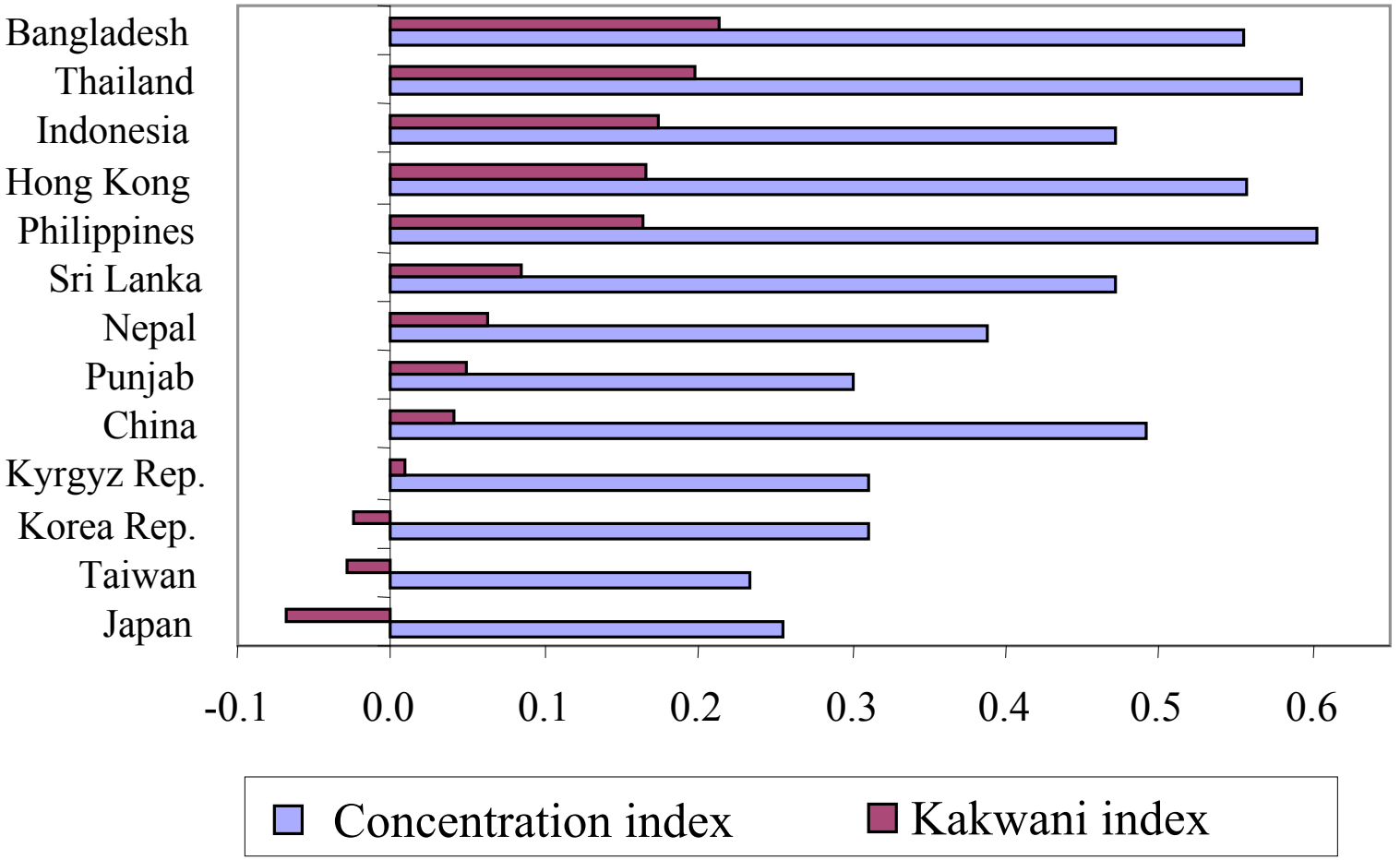
- Profile of health financing
  - Health accounts (OECD SHA)
- Distribution of payments for health care
  - Progressivity of taxes, insurance, out-of-pocket
  - Welfare ranking using consumption
- Targeting of government health spending
  - Benefit incidence
- Incidence of catastrophic health spending
- Voices of the poor: Public opinion surveys
- Policy frames
  - Content analysis, surveys of policy makers
- Equal treatment for equal need (ETEN)
- Health outcomes
- Comparative case studies
  - Tax systems, Extension of social insurance

Selected Findings

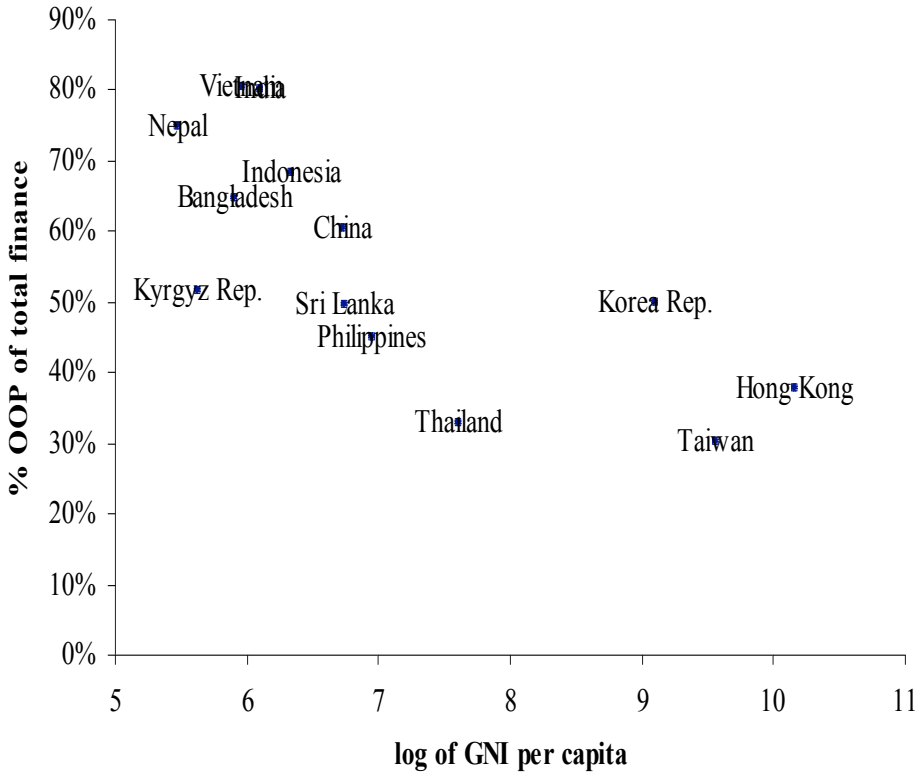
Health financing mix

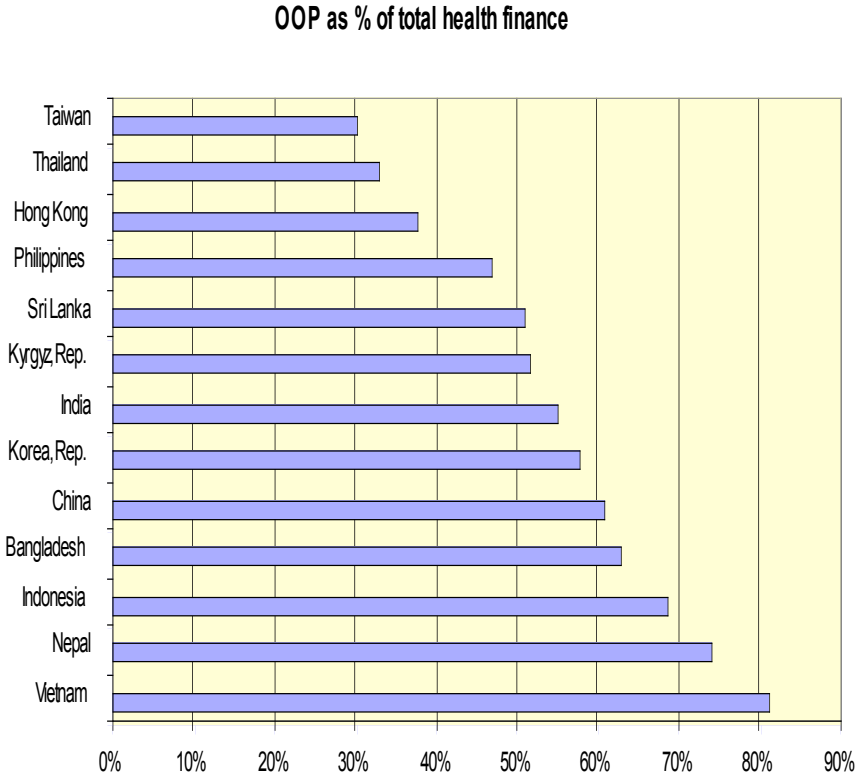


Concentration and Kakwani indices for total health financing



Out-of-pocket payments





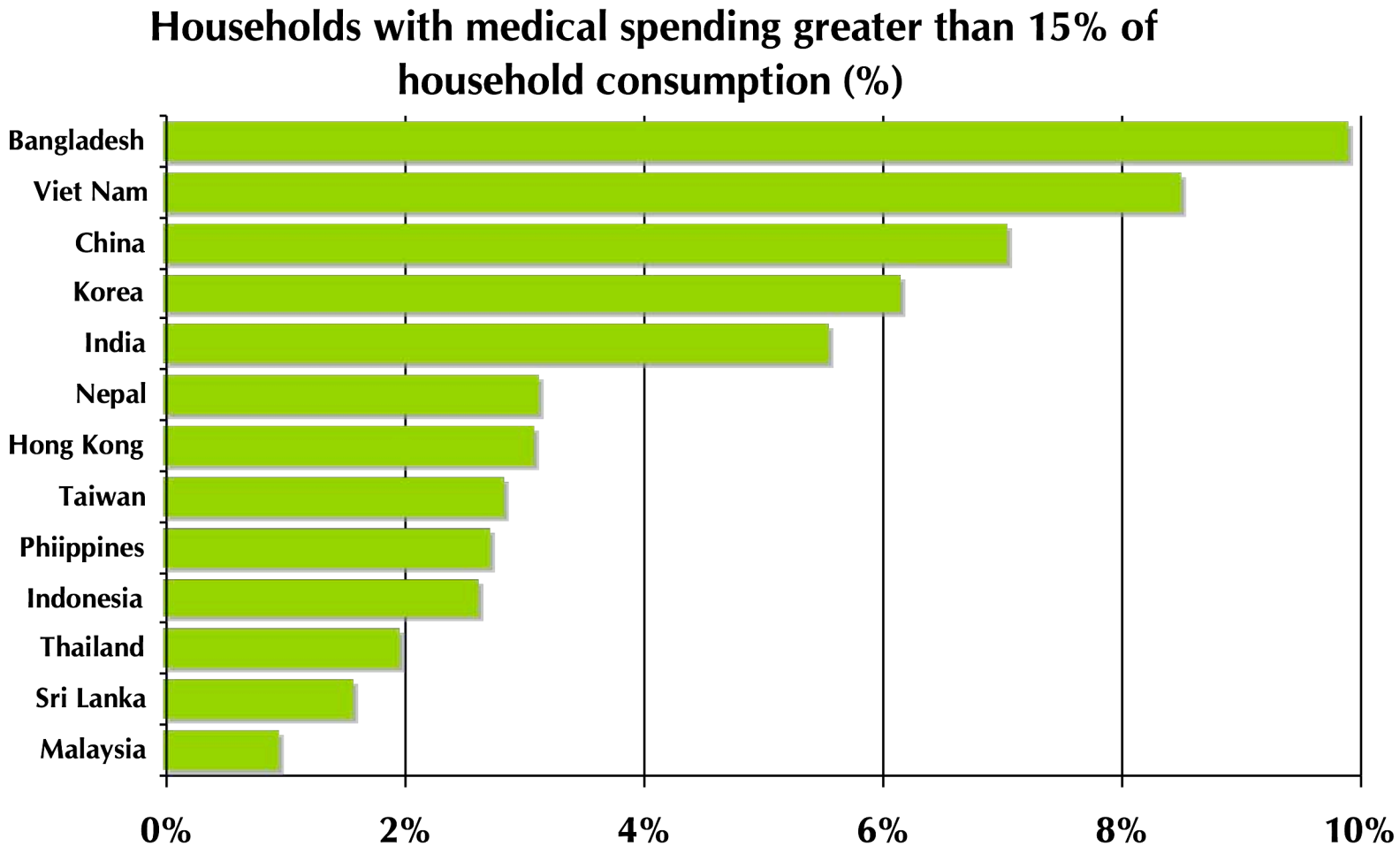
Who pays for health care?

- The better off pay more (absolutely and relatively)
- In general, as GDP↑, share paid by better-off falls and financing becomes more proportional, but progressivity also means better access for rich
- Effect of economic development:
  - OOP→SI; indirect taxes → direct taxes
  - Direct taxes and OOP less progressive at higher levels of GDP
- Progressivity of payment mechanisms:

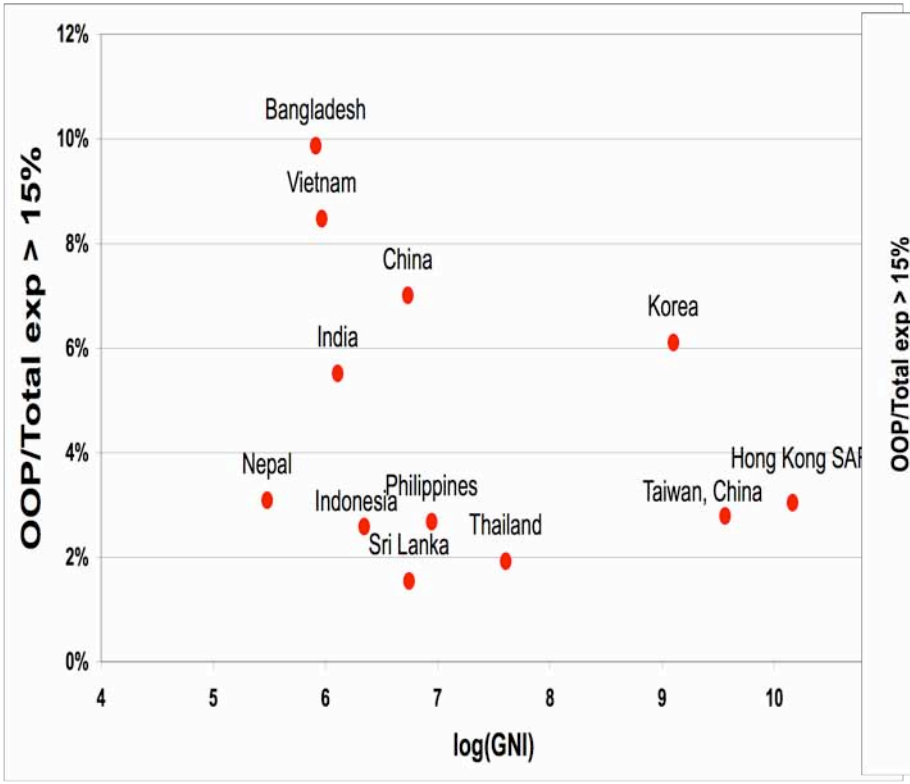
Direct Taxes > Indirect Taxes > Social Insurance

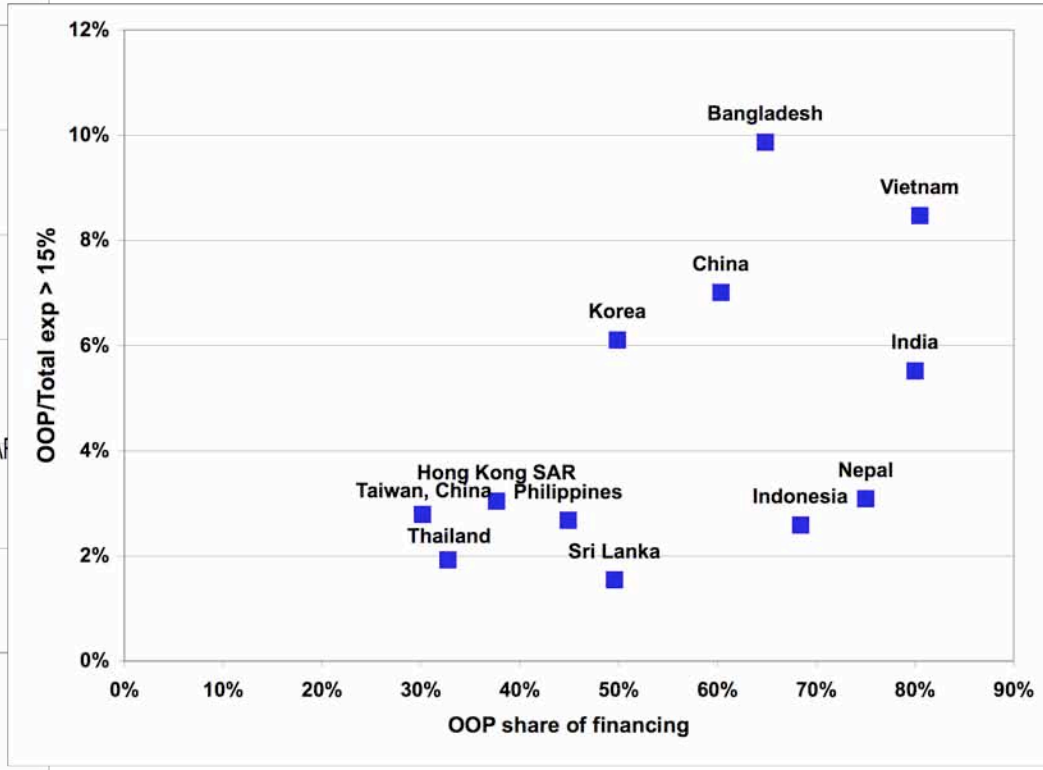
<---------- OOP ---------->

Catastrophic impacts



Correlates of financial catastrophe





Poverty impact of health OOPs on Pen Parade in Bangladesh (US$1.08 poverty line)

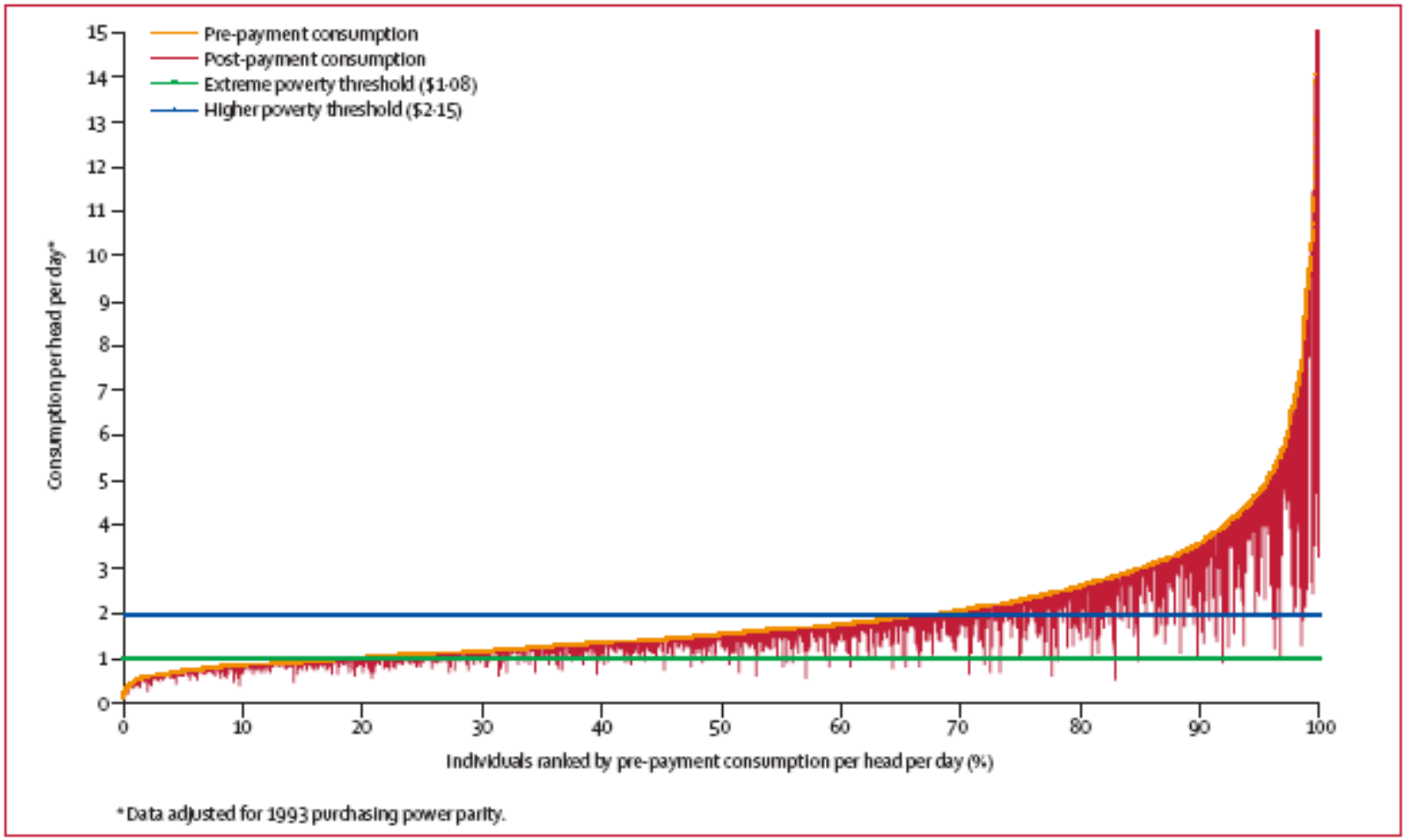
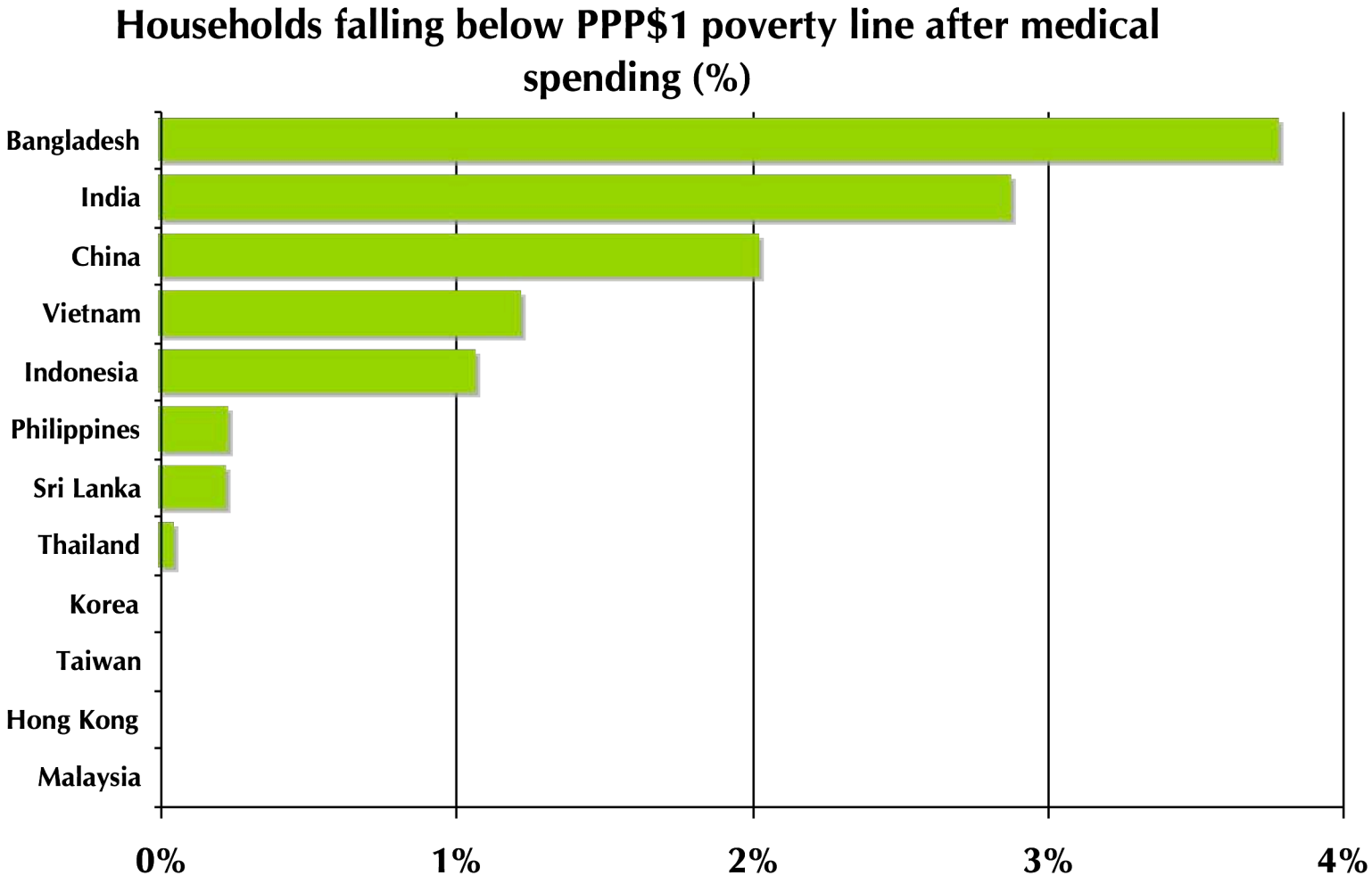


Figure 3: Distribution of total consumption before and after subtracting health-care payments–Bangladesh (2000)

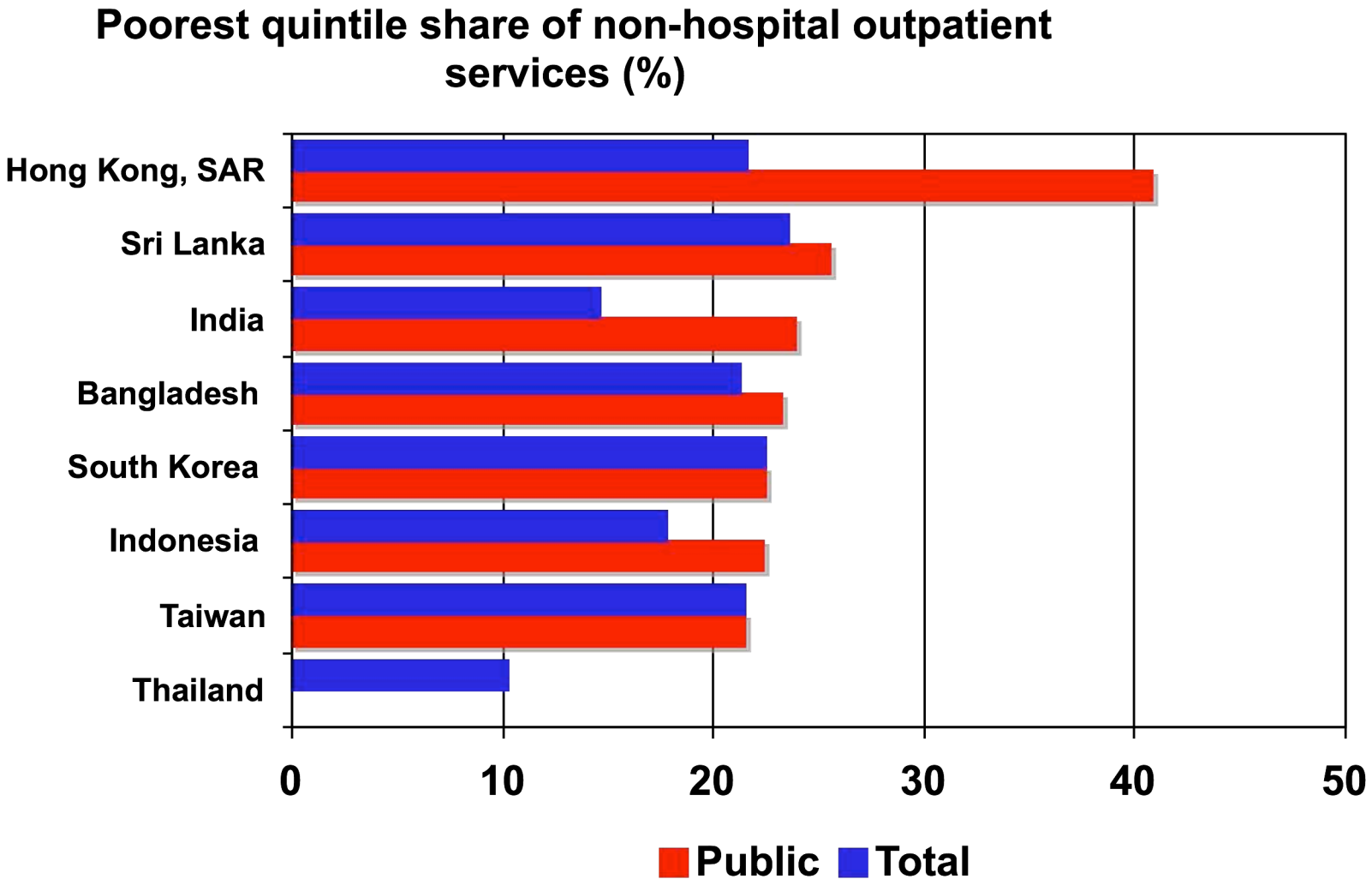
Poverty impacts



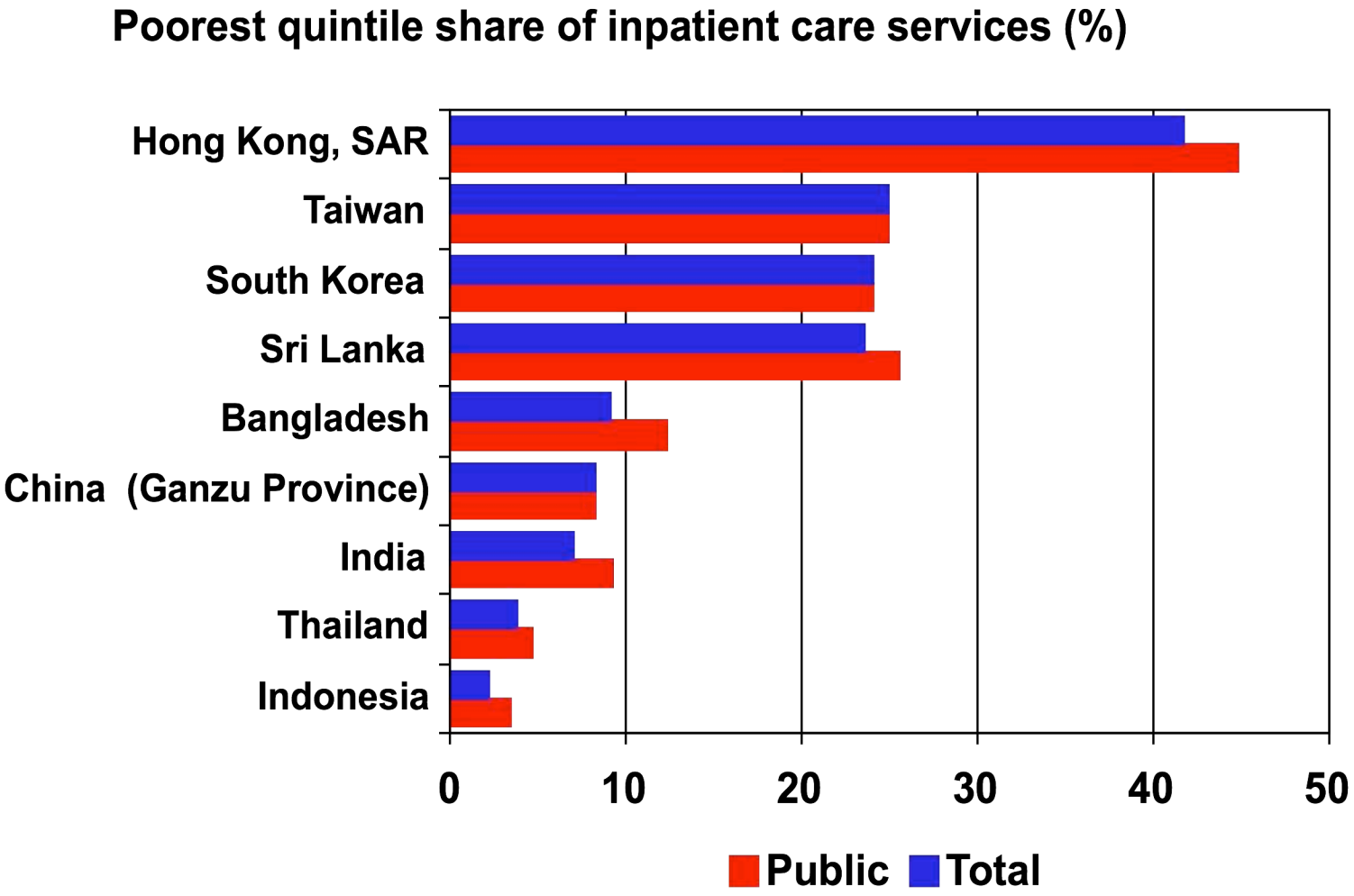
Catastrophic and poverty impacts

- Cross-country differences in the level and distribution of financial catastrophe:
  - More than 10% of households spend over a quarter of all non-food consumption in Bangladesh, China, India, Nepal and Vietnam
  - High-income: more equally distributed catastrophic payments
  - Low-income: mostly better-off
- Despite pro-rich concentration of OOPs, still substantial poverty impact
- Relationship between OOPs share of health financing and poverty impact not straightforward:
  - High OOP and high impact in Bangladesh, China, India and Vietnam
  - High OOP but lower impact in Indonesia, Nepal and Philippines
  - Given income level, Thailand and Sri Lanka have fairly low OOP shares and lower catastrophic rates, some even lower than high-income economies (Hong Kong, Taiwan (China), Korea)
- Does not inform on:
  - Impact of OOPs on utilisation
  - Extent to which public provision and financing of health care protects households

Targeting & use disparities



Targeting & use disparities



Who benefits from public subsidies?

- Public subsidies for health are
  - strongly pro-poor in Hong Kong SAR (China)
  - moderately pro-poor in Malaysia, Sri Lanka, Thailand and Mongolia
  - pro-rich in Bangladesh, China, Indonesia and Vietnam
- Pro-rich bias stronger for inpatient than outpatient hospital care; non-hospital care is usually pro-poor.
- … but greatest share of subsidy goes to hospital care and this dominates distribution of total subsidy.
- Subsidies typically not pro-poor but are inequality-reducing in all countries except in Nepal:
- Health subsidies narrow relative differences in living standards b/w rich and poor.

Performance of health systems

Universalistic, tax-funded systems No/minimal user fees, no explicit targeting/voluntary self-selection by rich of private sector, emphasis in spending towards hospitals/inpatient care, high density of supply.	Sri Lanka Malaysia Hong Kong 
Non-universalistic, tax-funded systems User fees, means testing, diverse ineffective experimentation in “reaching the poor” projects, emphasis in spending towards non-hospital care, low density of supply.	Bangladesh Indonesia India Nepal 
National health insurance systems Universal social health insurance, large tax-subsidy for insurance, emphasis in spending towards hospitals/inpatient care	Japan Korea Taiwan (Mongolia/Thailand) 
Transition systems Restricted social health insurance, minimal tax-subsidy for insurance, user charges major mechanism of financing	China Viet Nam 

Findings of Comparative Analyses

- **Performance generally correlated across dimensions of equity**
  - Health outcomes, risk protection, targeting
- **Indirect taxation not generally regressive in lower-income economies unlike in Europe**
- **Tax funded systems**
  - The best targeted health systems in Asia are tax-funded with integrated provision (Hong Kong, Malaysia, Sri Lanka)
  - Well targeted systems characterized by:
    - Universalistic approach - no means testing, no explicit targeting
    - Concentration of spending on hospitals/inpatient care
- **Social insurance systems**
  - Generally only reach poor, if universal in nature
  - Not attainable in poorest countries (exception Mongolia?)
  - Equity requires substantial tax financing contribution to pay premiums for unemployed, informal sector, etc - Social Insurance is no substitute for taxation capacity
  - Equity worse if schemes are not integrated

Future Agenda

Equitap II: 2006-2008

- Fund raising
- Commissioned analyses (DFID, ADB, CSDH)
- Research – “Why do some tax funded systems reach the poor?”
  - Determinants, Extending analysis to other regions
- Health inequalities
  - Determinants
- Equitap Book
- Asia-Pacific Health Systems Observatory

Explaining performance of tax-funded systems

Defining Tax-funded Systems

Country	Tax as % of public funding	Tax as % TEH	Social insurance as % TEH	TEH as % GDP
Hong Kong SAR	100	55	0	5.7
Sri Lanka	100	50	0	3.5
Bangladesh	100	27	0	3.3
Nepal	100	24	0	4.0
Malaysia	96	55	1	3.0
India	95	41	1	5.0
Indonesia	94	24	2	3.0

* General revenue funding >90% of public financing
* Social insurance < 5% of TEH

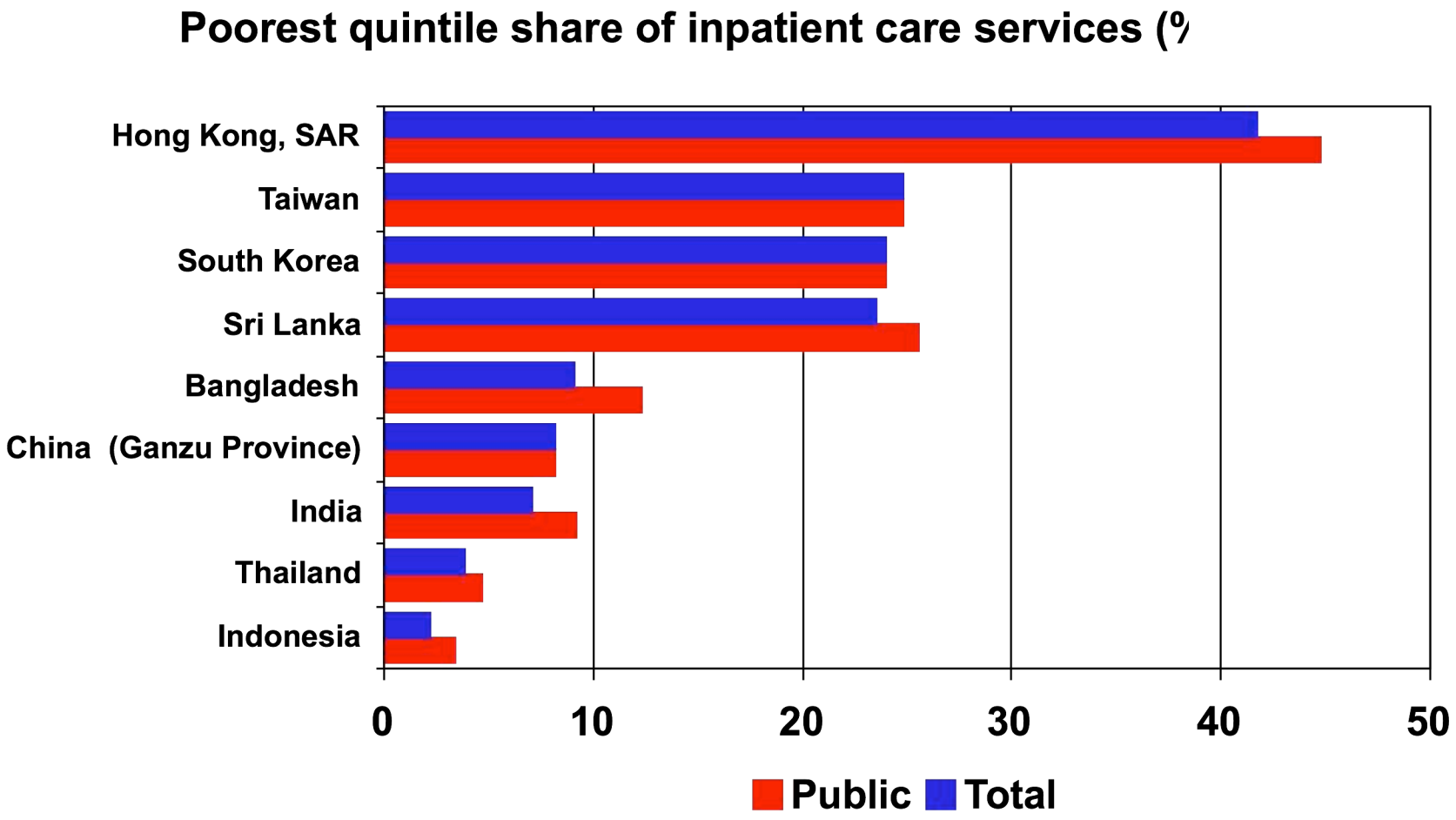
Conventional wisdom

- Subsidies on government-provided, “free” health services in practice captured by rich
- Need to target to reach the poor
- Better to emphasize pro-poor preventive services to reach the poor
- Conventional civil-service modes of delivery lack incentives for efficiency and serving poor
- Indirect taxation regressive, so redistributive arguments weak
- Social insurance can work better than tax-financing in lower-income settings

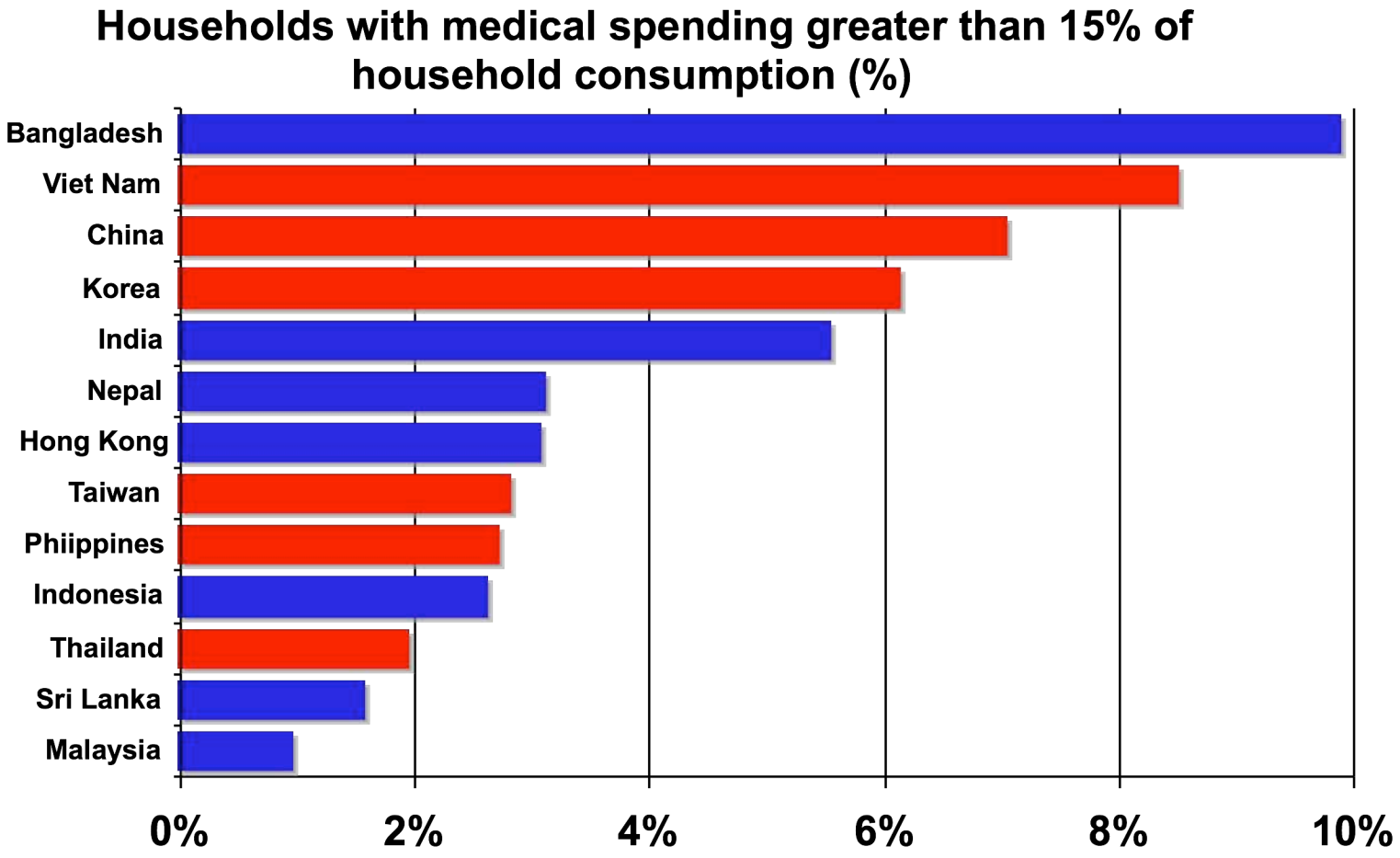
Performance

Country	Catastrophic impact	Poverty impact	Targeting of government spending	Health outcomes
Nepal	Large	Large	Pro-rich	Poor
Bangladesh	Large	Large	Pro-rich	Poor
India (Punjab)	Large	Large	Pro-rich	Poor
Indonesia	Modest	Modest	Pro-rich	Poor
Sri Lanka	Negligible	Negligible	Pro-poor	Good
Malaysia	Negligible	Negligible	Pro-poor	Good
Hong Kong SAR	Negligible	Negligible	V. pro-poor	Good

Performance: Targeting



Performance: Catastrophic impacts



Explanations: User fees in public sectors

– – Extent of user fees ++

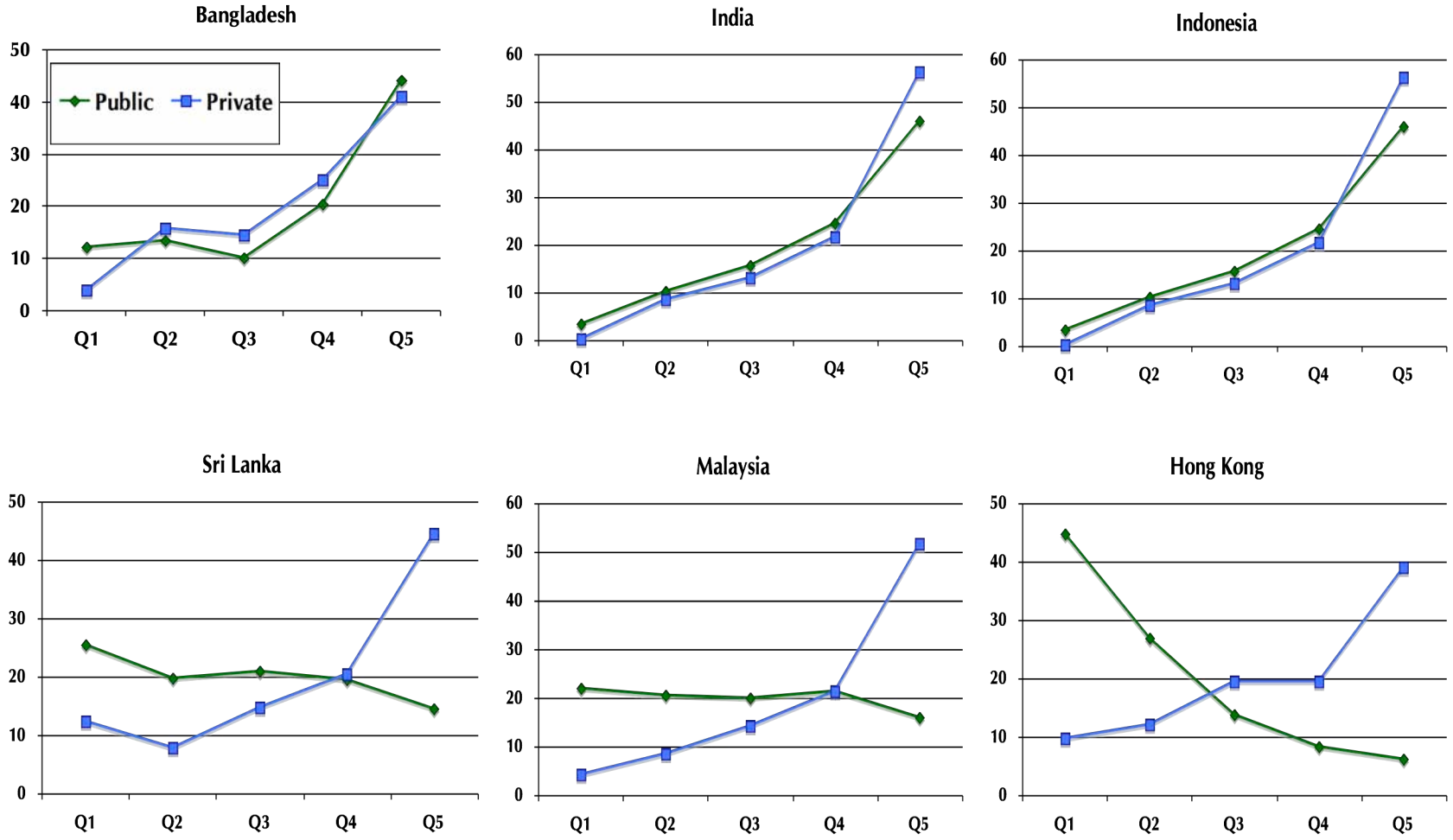
Country	Official fees	Informal fees
Bangladesh	IP care - modest charges	Very common
Indonesia	IP and OP care - varying charges by facility	Common
India	IP and OP care - modest charges	Common
Nepal	IP and OP care - modest charges	Very common
Sri Lanka	IP and OP care - free	Infrequent
Malaysia	IP and OP care - nominal charges	Negligible
Hong Kong SAR	IP and OP care - nominal charges	Negligible

Explanations: Means testing & targeting

-- Extent of targeting ++

Country	Targeting approach	User fees
Indonesia	Geographical targeting, means tested health cards	Varied
Bangladesh	Poor exempt from fees or pay reduced fees	Modest
Nepal	Poor exempt from fees or pay reduced fees	Significant
India	Informal exemptions	Varied
Malaysia	Poor exempt from fees	Negligible
Hong Kong SAR	Poor exempt from fees	Negligible
Sri Lanka	No means testing	No fees

Explanations: Use of public and private inpatient care by quintiles



Hypothesis

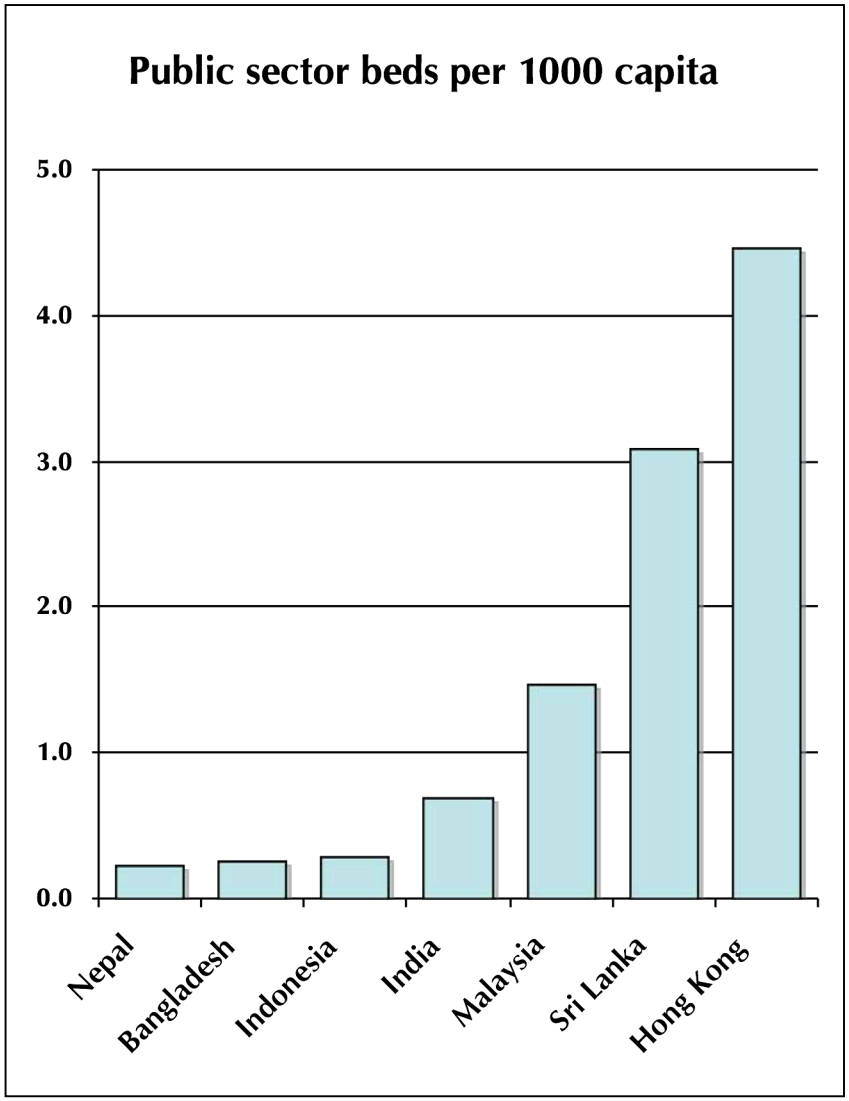
- Two distinct groups of tax-systems according to performance:
  - **(1) Poor risk protection, poor targeting (BAN, NEP, IDO, IND)**
  - **(2) Good risk protection, good targeting (SRI, MYA, HKG)**
- Gradients in use of public & private provision
  - Private provision pro-rich in bad performers
  - Public provision pro-rich in bad, pro-poor in good performers
- Targeting of government spending
  - Good performers - not explicit or direct
  - Good performers - allocate budgets more to hospital services, less to preventive care
- Consistent with Besley-Coate Hypothesis
  - Under budget constraint, public services can be universally-provided; if richer individuals opt for private care, targeting will be pro-poor

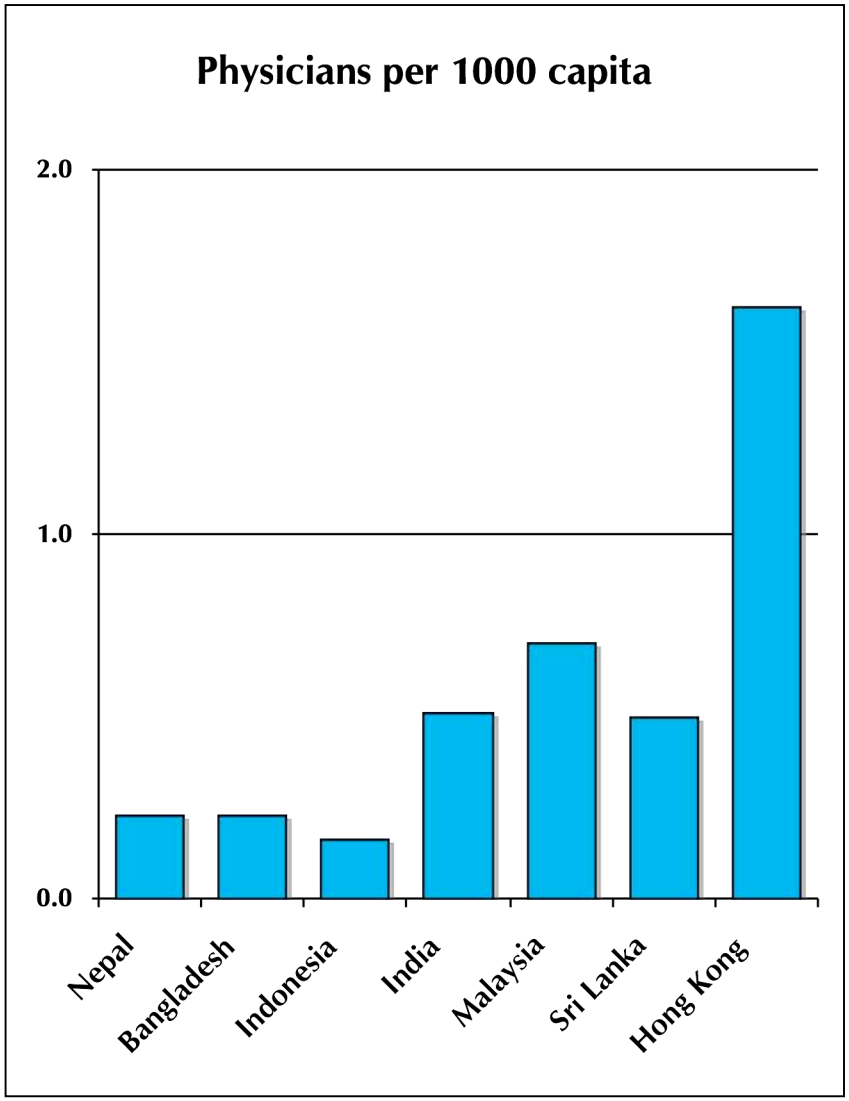
How do they do this?

Tentative Explanations

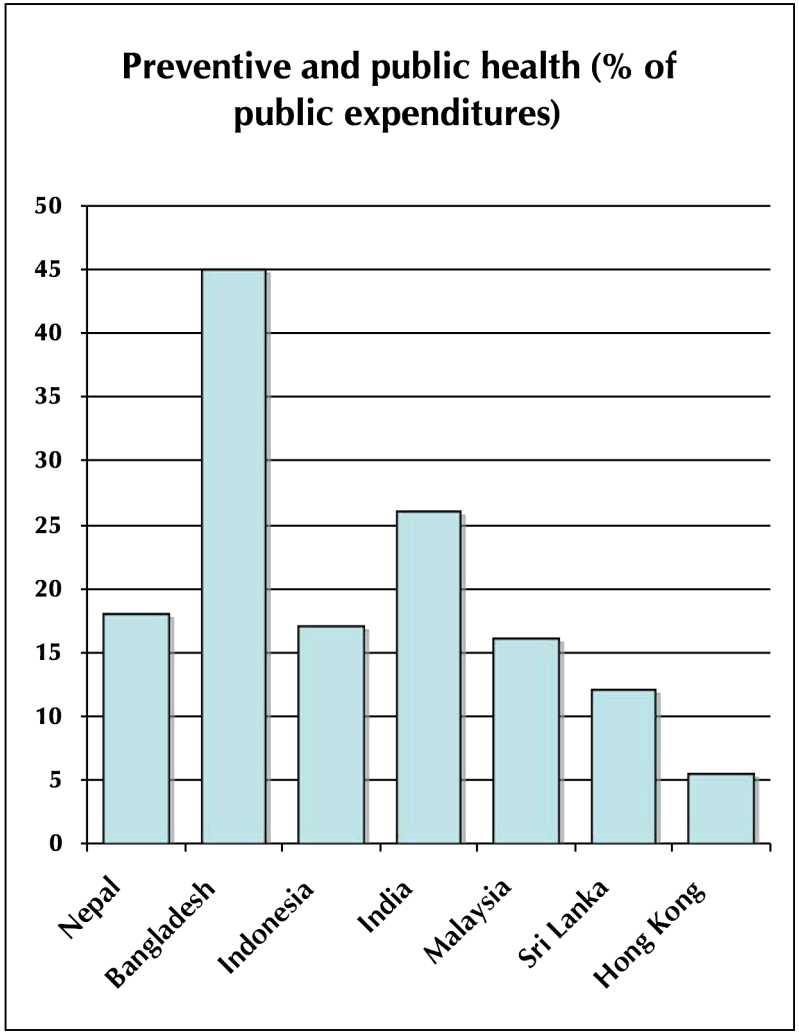
- Health care provision
- Social behavior
- Budget allocations
- Technical efficiency
- Governance

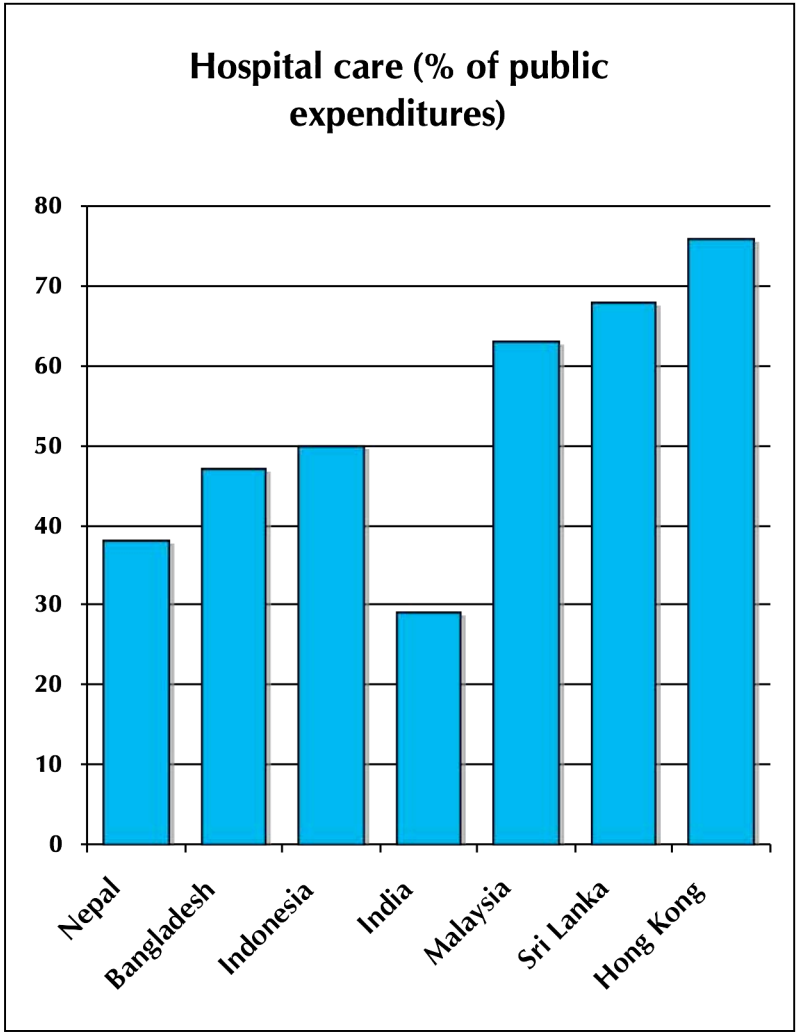
High levels of public sector hospital supply



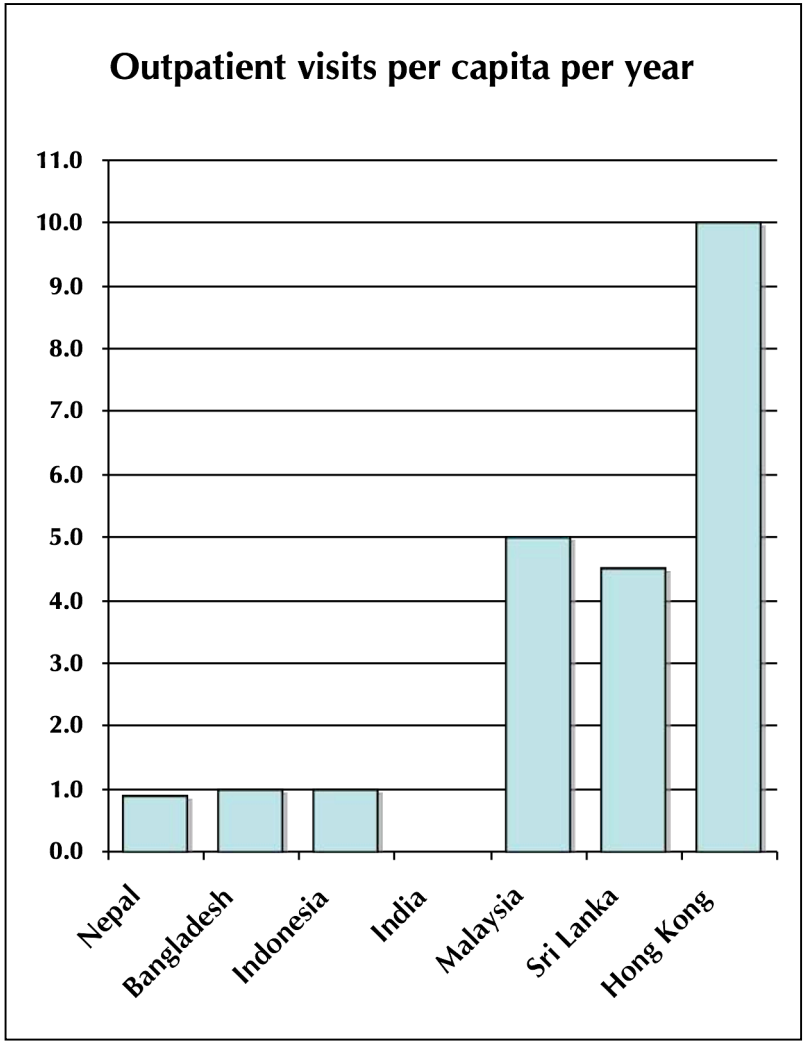


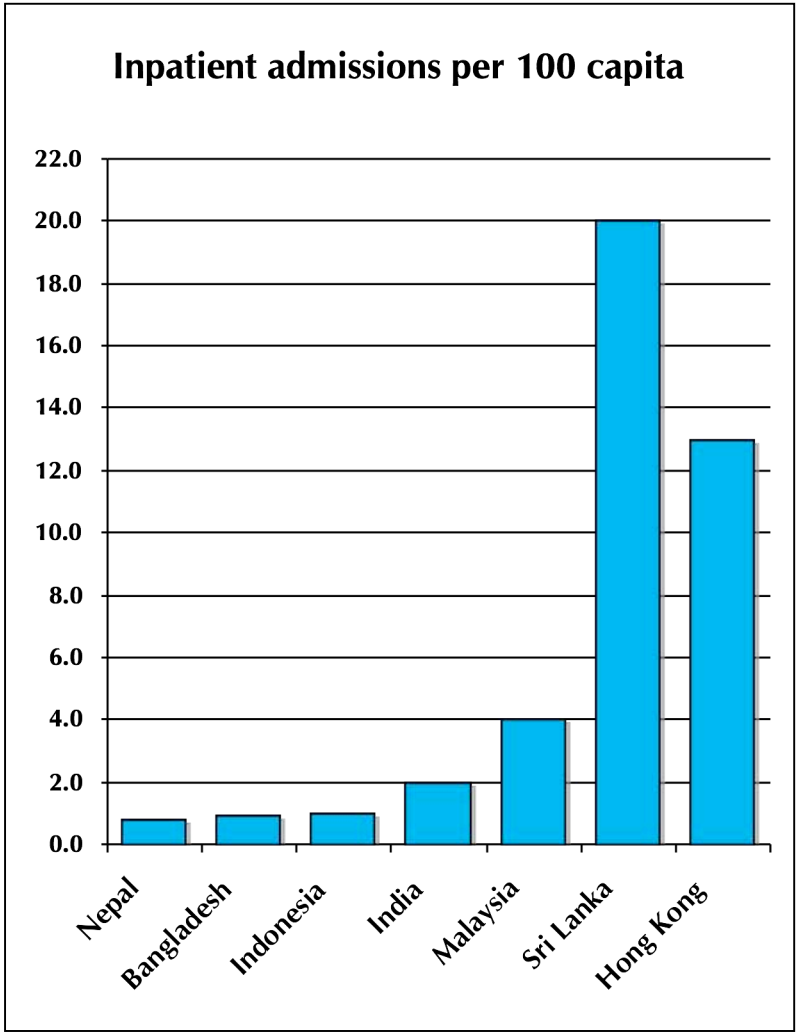
Budgeting:
Preventive vs. Hospital care





Social behavior: High health care use





Technical efficiency gains during scaling-up: Sri Lanka

Year	GDP (US$ 1995 per capita)	IMR	Health spending (US$ 1995 per capita)	Outputs (Out-patients)	Outputs (In-patients)
1948	255	92	4.3	1.1	0.09
1960	279	57	5.4	2.3	0.14
12 yrs	+9%	-38%	+ 25%	+110%	+55%

Contribution of increased spending = <25%
Contribution of technical efficiency gain = >75%

Policy messages

- Need to take seriously and understand good-performing good performing tax-funded systems
- Indirect targeting with parallel private provision more effective than direct targeting - requires change of perspective and agendas
- High levels of public supply with limited budgets requires attention to technical efficiency and mechanisms for improving productivity