Financing National Health Insurance

Hasbullah Thabrany,
Chair. CHEPS Universitas Indonesia

- *Information presented is not the view of CHEPS or Universitas Indonesia*

What is National Health Insurance?

- Definitions vary across countries, but there are common characteristics
  - Covering health care costs, nation wide.
  - Broad sharing across population groups (rich-poor, healthy-sick, young-elderly)
  - Mandatory contributions – mostly sharing by employers-employees
  - Often the NHI is blended with some government contributions
  - One of the most equitable way of financing health care
- Collecting contributions vary: special collection by institutions and or integrated with general tax
- Some are under a special NHI law, some others are integrated with other social security programs

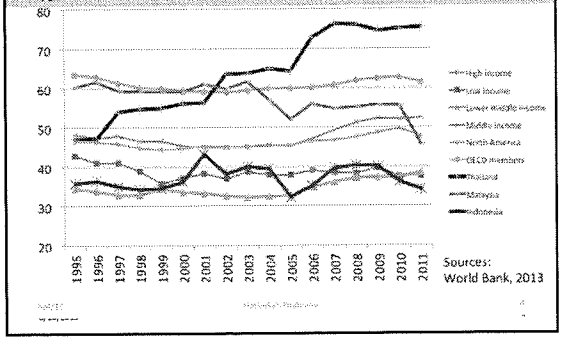
Some Logos of NHI

Gana Nigeria India

BPJS Kesehatan

Sudan Tanzania Taiwan

Public Health Expenditures, % THE,1995-2011. Some Countries



Sources: World Bank, 2013

NHI and NHS

National Health Insurance (Bismarkian Model)

1. Covers people who contribute or receiving contributions by other (government)
2. The benefits may vary
3. Benefits can be accrued in private health care facilities
4. Funded by special contribution with or without government subsidies

National Health Service (Beverage Model)

1. Covers all population without specific proof of contributions
2. The benefit may vary
3. Often the benefits are provided in public health care facilities only
4. Funded by general tax revenues

The Concept of National Health Insurace

- First word of NHI was introduced in the UK, in 1911
- The next NHI was introduced in Canada in 1961, covering only inpatient care. In 1971 it was expanded to cover outpatient care.
- In term of coverage, it does not differ from National Health Service. The funding mechanism that is different
- It aims at ensuring egalitarian equity across all population in a country

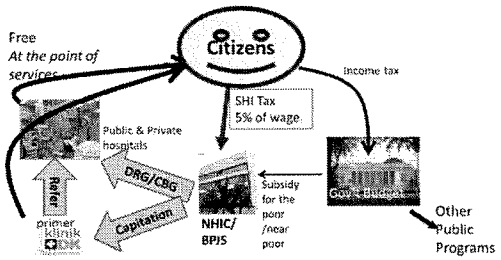
The Organizational Aspects

- Although the term of NHI seems to be a single payer, it is not always
- The Canadian NHI has a single payer in each province.
- The Japan NHI comprises of multi schemes that collected contribution. But, it has a quasi single payer
- Some are managed by a government agency (Taiwan, the US Medicare) some others are managed by a quasi government agency (Indonesian, the Philippine, South Korea)

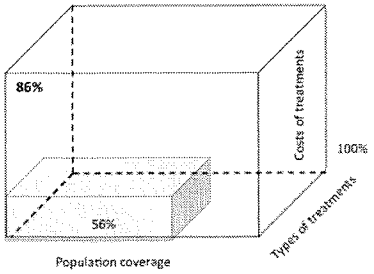
BPJS – A Single Payer for Health Care

Following Korean, Taiwan, and The Phillipine in Asia

(NHIC = National Health Insurance Corporation)



The Cube of Universal Health Coverage The Indonesian Case, 2014

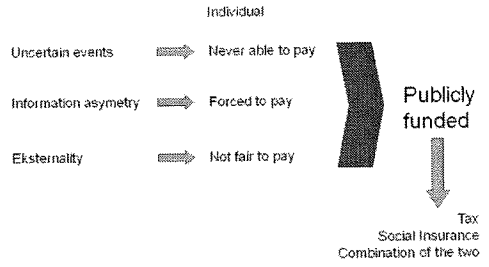


Hasbullah Thabrany

Reasons for NHI

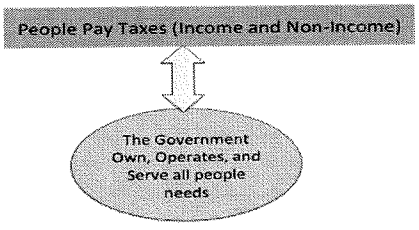
- Market failures. Commercial health insurance is not the choice for equitable health care financing.
- Equity (egalitarian) goal. Often, it is the mandate of the Constitution.
- Efficiency. A single payer or a single system has a monopsony power to control health care prices
- Simplicity of administration or uniform administration

Health/Health Care, at Individual Level

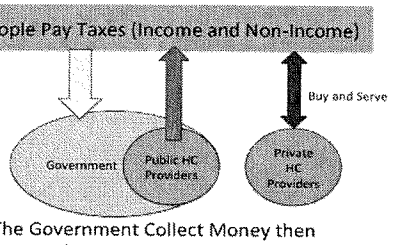


Source of Financing

The Beverage Model: Traditional and Simple Model

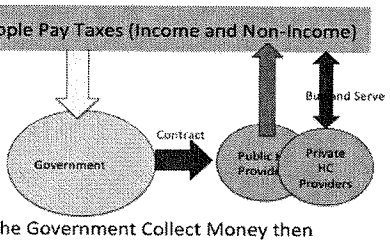


Modified Beverage Model 1: Separation of Finance and Deliveries



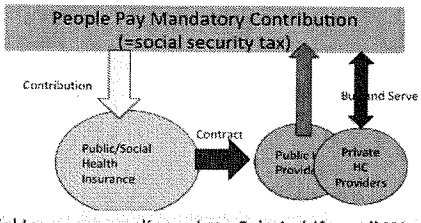
The Government Collect Money then Contract/Pay autonomous Health Care

Modified Beverage Model 2: Separation of Finance and Deliveries



The Government Collect Money then Contract to Public and Private Health Care

The Bismarkian Model: Separation of Finance and Deliveries



Pure social Insurance applies only to Salaried (formal) Workers. Non salaried workers receive some or full subsidies

Conclusion

- National health insurance is a way of achieving Universal Health Coverage on egalitarian equity for all people
- The most common financing for NHI is a combination of strictly insurance (risk-transfer) mechanism and subsidies (tax funded)
- Another way of financing for UHC is national health service scheme
- Decision on which method to be implemented is political and depending on local context

Thanks You

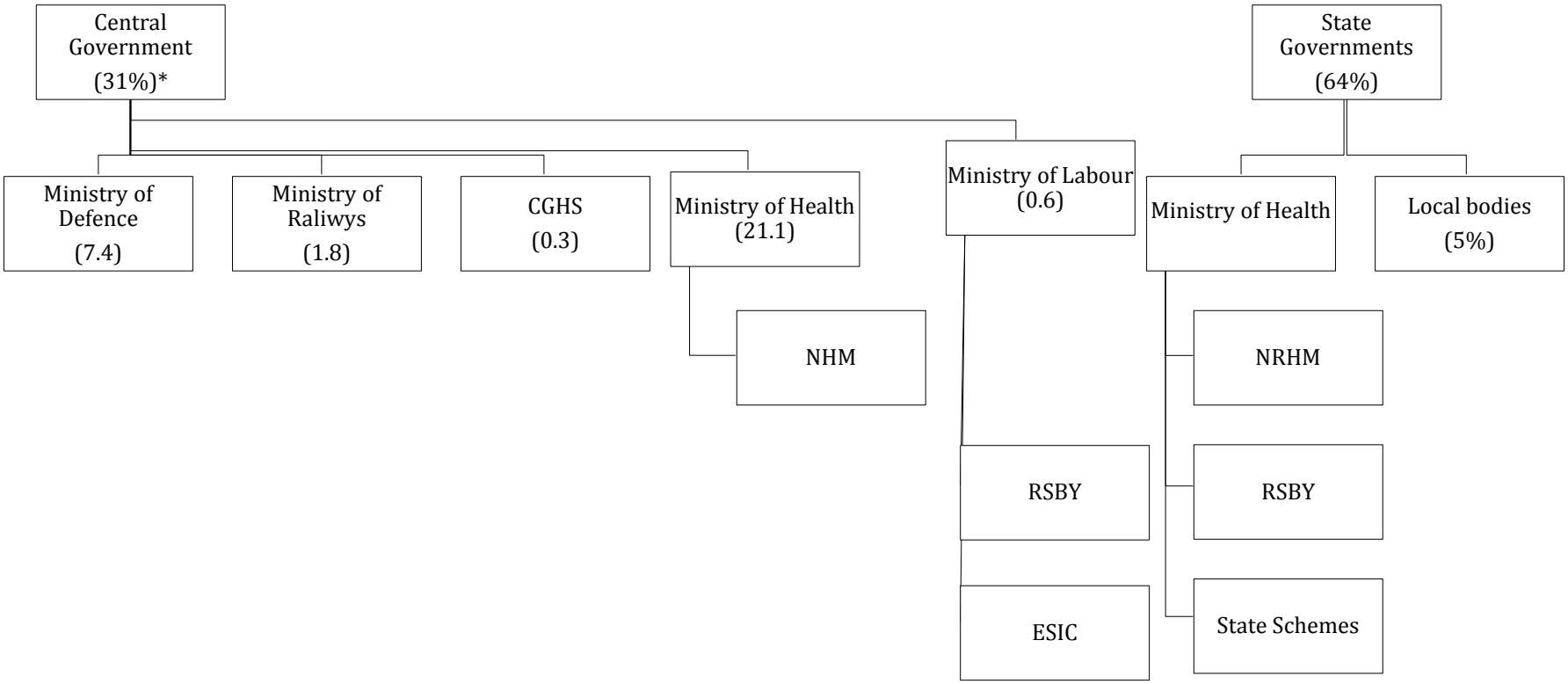
Financing of National Health Insurance in India

Mukul Asher & Dayashankar Maurya

National University of Singapore

Asia Public Policy Forum
Jakarta
August , 12-15 , 2015

India's Health System: An Overview

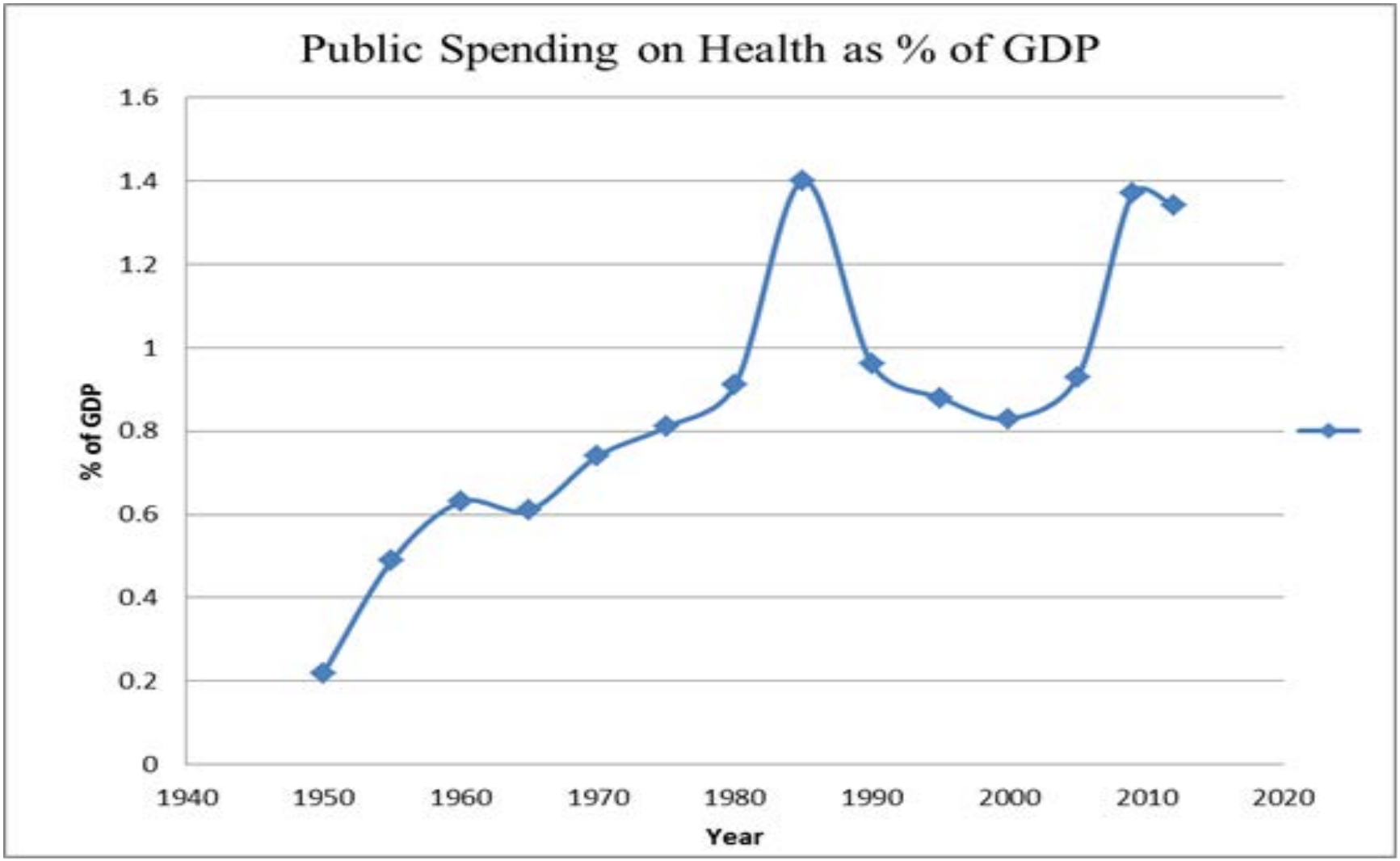


*Figures in the bracket indicate percentage of Total Health Expenditure

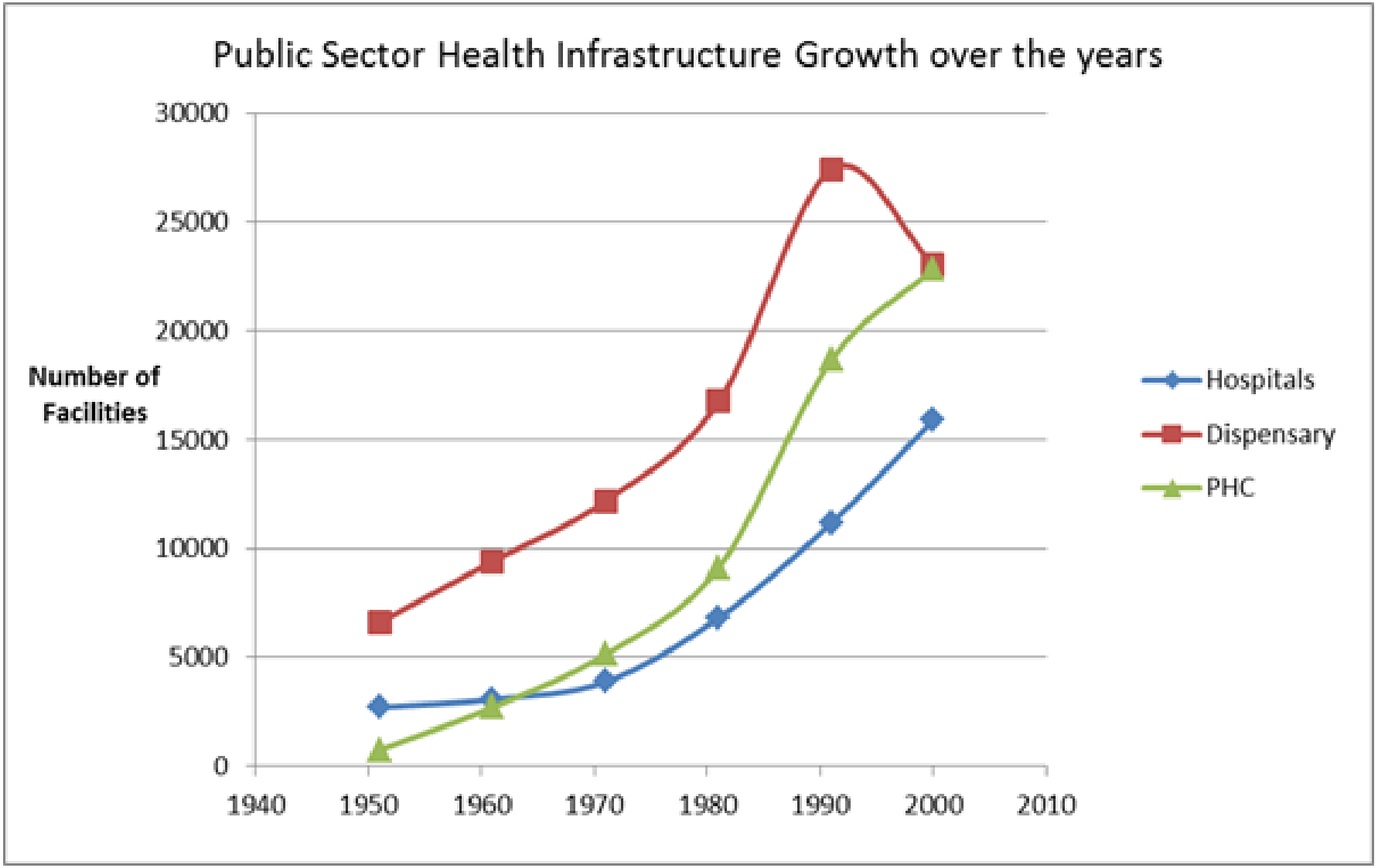
India's Health System: An Overview

- Financing and delivery of health services is primarily a state subject but a number of health system areas are shared between federal and state government leading to issues of coordination and moral hazards.
- Three Phases in health policy
  - 1950-1970 : Free healthcare services provided through a three tier public health facilities
  - 1970-2005: Reduced spending and incentives to private sector
  - 2005-2015: Strengthening of Public sector , Purchasing care from private sector

India's Health System: An Overview



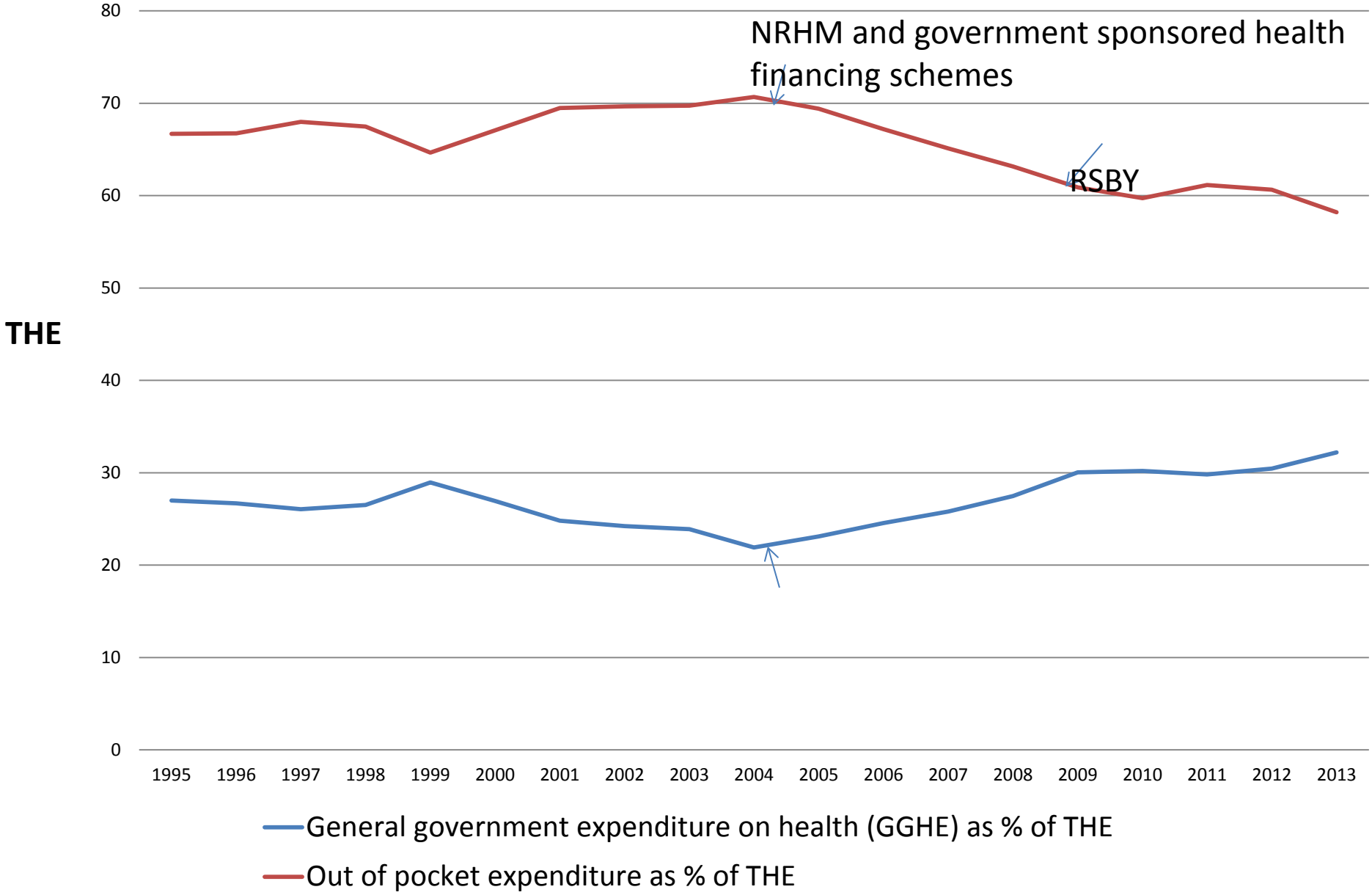
India's Health System: An Overview



Indian Healthcare System Overview

- Private sector dominates both in financing (67% of THE)and service delivery (~60-70%).
  - Household contribute through OOP (57.6 % of THE) and premiums (3.1 % of THE)
  - Private hospitals dominate in both out patient care (~80%), and hospital based care (~57%)
- Public financing (33% of THE) and delivery is concentrated into public health and primary healthcare.

Composition of Total Expenditure on Health (TEH)



Indian Healthcare System Overview

- Private healthcare system
  - Health -fastest growing sectors - CAGR of 21%
  - Worlds largest exporter in pharmaceuticals
  - World class services
  - Medical Tourism
- Wide variations in services , access , quality, outcomes across jurisdictions

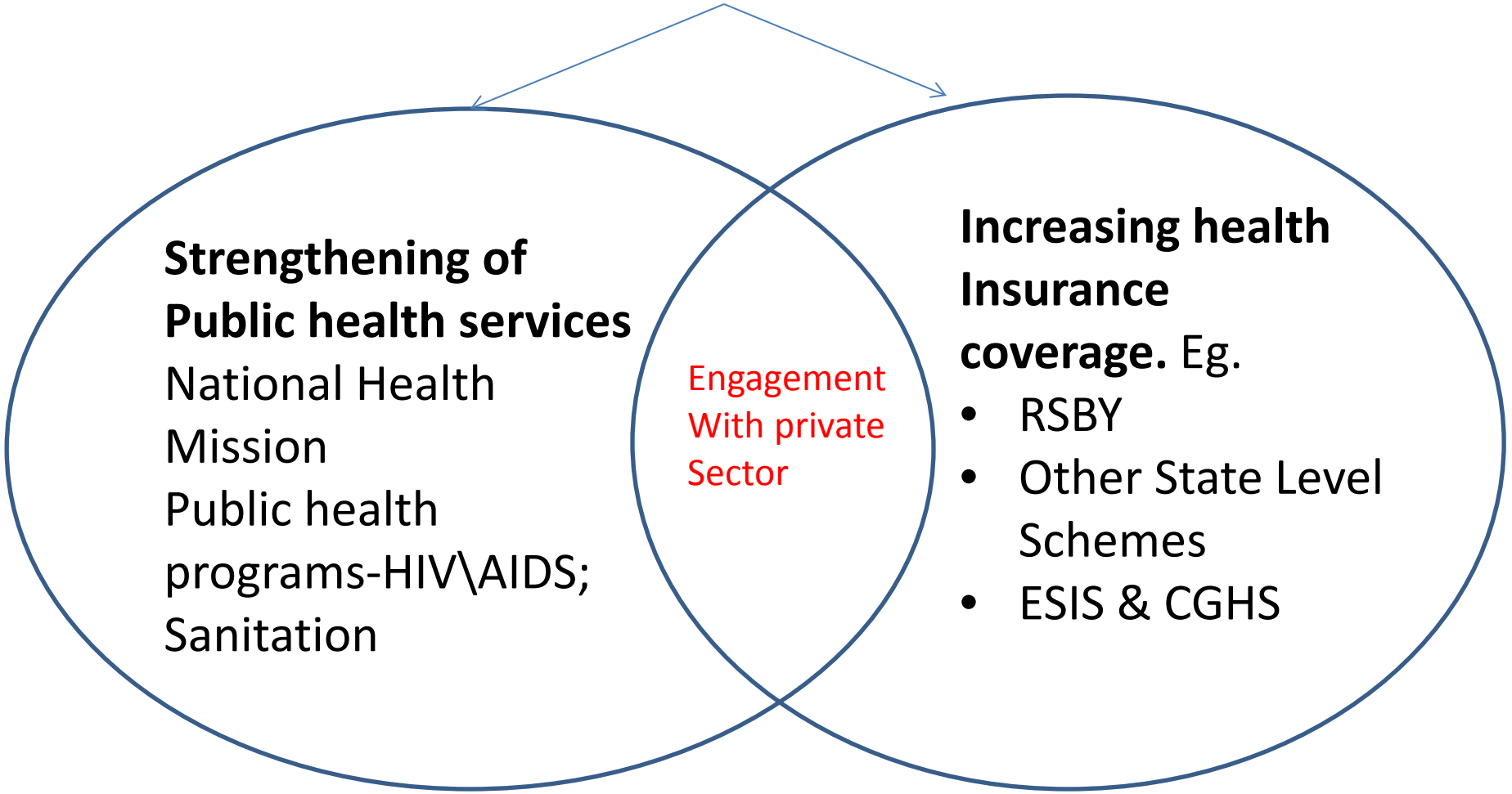
Key Challenges: Slow Progress in Health Outcomes

- Reduction in Mortality and morbidity (mainly in last decade)
  - HIV Prevalence declined by 42.6 % (2005-2012)
  - Malaria - 50-75% (2005-2015)
  - IMR decline by 50% from (between 1990-2012)
  - Under 5 Mortality declined by 58% (between 1990-2012)
  - Maternal Mortality declined by 70% (between 1990-2012)
- Population stabilization
  - TFR decreased from 2.9 (2005) to 2.3 (2013).

Key Challenges: Limited financial Protection

- Low level of public financing (1% of GDP)
- Low insurance coverage (only 17% of the population covered with any form of insurance in 2014)
- Dominance of high cost private sector care (unregulated private sector and fee for service)
- High OOP expenditure (61% of THE)
- 64 Million population pushed into poverty because of healthcare (2014).

Universal Coverage Reforms



Programs Providing Health Insurance Coverage

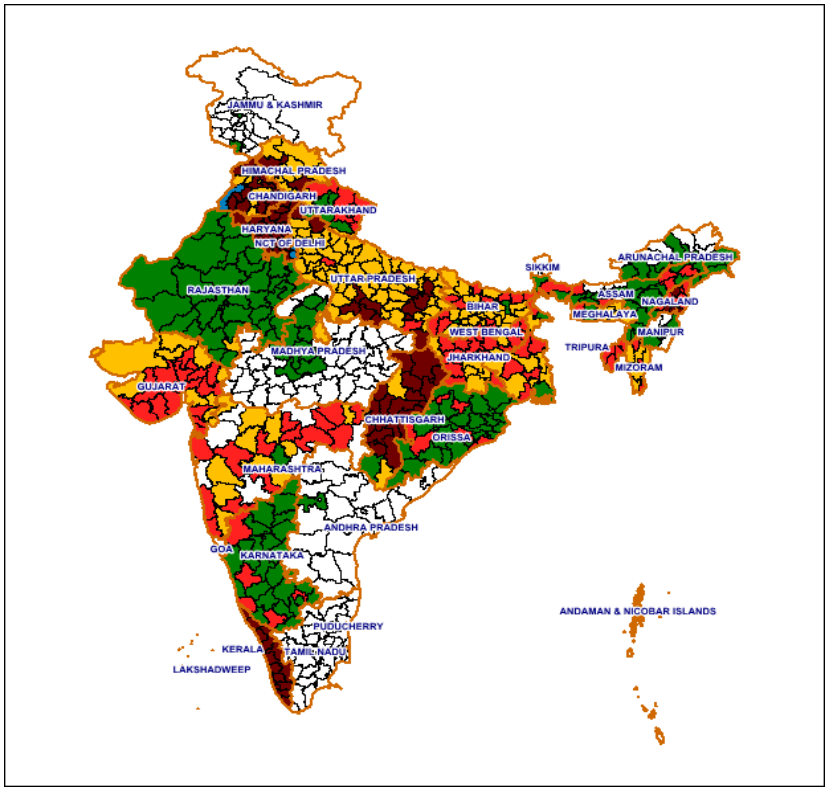
Name of the Scheme	Year of Launch	Population Coverage (in millions)
Central Government Health Scheme	1954	3
Employee's State Insurance Scheme	1952	75
Yeshasvini	2003	3
Rashtriya Swasthya Bima Yojana	2008	188
Rajiv Aarogyasri	2007	20.4
Chief Ministers Kalaignar	2009	13.4
Vajpayee Aarogyshri	2010	1.4
Private health insurance		55
Total		359. 2

National Health Insurance in India

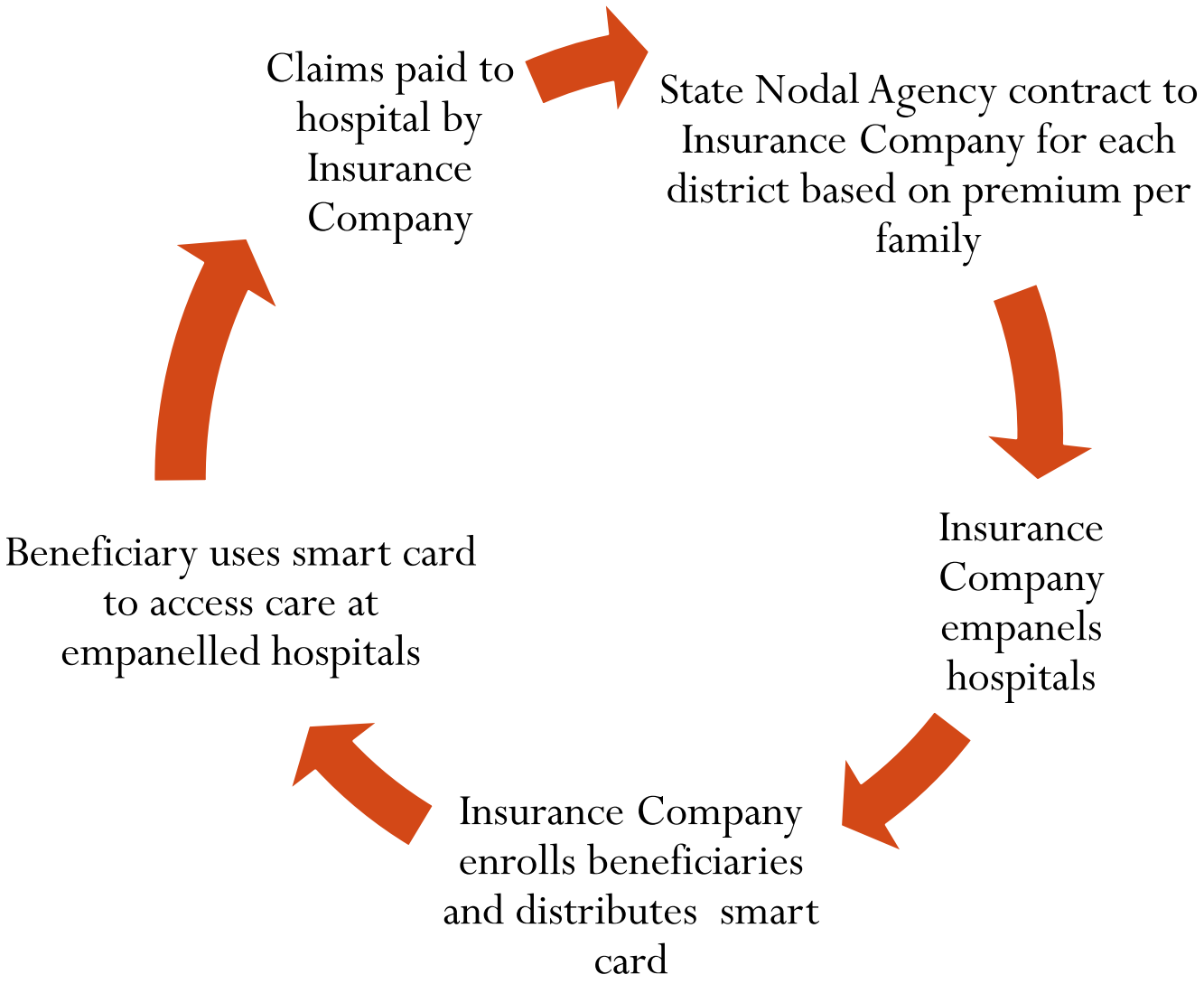
- Started in 2008. One of the largest health insurance scheme in the World.
- Scheme Design
  - Target Group : low income groups (Below poverty line population). Also includes specific vocational groups .
  - Total sum assured: INR 30,000 US $ 750 per BPL family (family of five) per annum.
  - Benefit package: hospitalisation expenses for all diseases including pre-existing diseases.
  - Financing: Tax based (Federal government 75% + State government 25%)
  - Co-payment - 100% pre-paid, no user charges or co-payment. Beneficiary only pays a token amount of 0.6 USD as a registration fee per annum.

National Health Insurance

- Cards issued – App. 37 .7 million
- People enrolled – Appr. 188.5 million
- Number of People benefitted – Appr. 7.2 Million
- Number of Hospitals Empaneled (officially approved) – Appr. 12,000
- States and UT where Service delivery has started – Twenty Eight
- Number of Insurance Companies Involved – Fifteen



Implementation Process



Stakeholders: Roles and Responsibilities

Decision Maker	**Federal Level**	**State Level**		**District Level**
	Central Government	State Government	State Nodal Agency	Insurer\TPA
Oversight of the Scheme	√		√	
Financial Management\Planning	√		√	
Package of service	√	√		
Selection of providers				√
Monitoring and Evaluation	√			√
Contract with Insurer		√	√	
Actuarial Analysis				√
Awareness of the scheme		√	√	√
Enrolment		√	√	√
Claims Processing and Payment				√

Key Design Elements\1

- Portability : Beneficiary can take treatment in any hospital across country
- Contract duration : Two years renewable every year.
- Bidding : based on lowest cost and past performance of Insurance Company. Insurance company paid based on premium per family
- Insurance company decide premium price based on past claims ratio in the district, and mortality and morbidity patterns and hospitals
- Hospitals paid on the basis of package of services
  - Package includes all expenses including transportation, food and post-discharge follow up for five days.
  - 1400 illnesses defined so far
  - Package rates take into account volume and thus priced lower than market rates
  - States can vary package rates

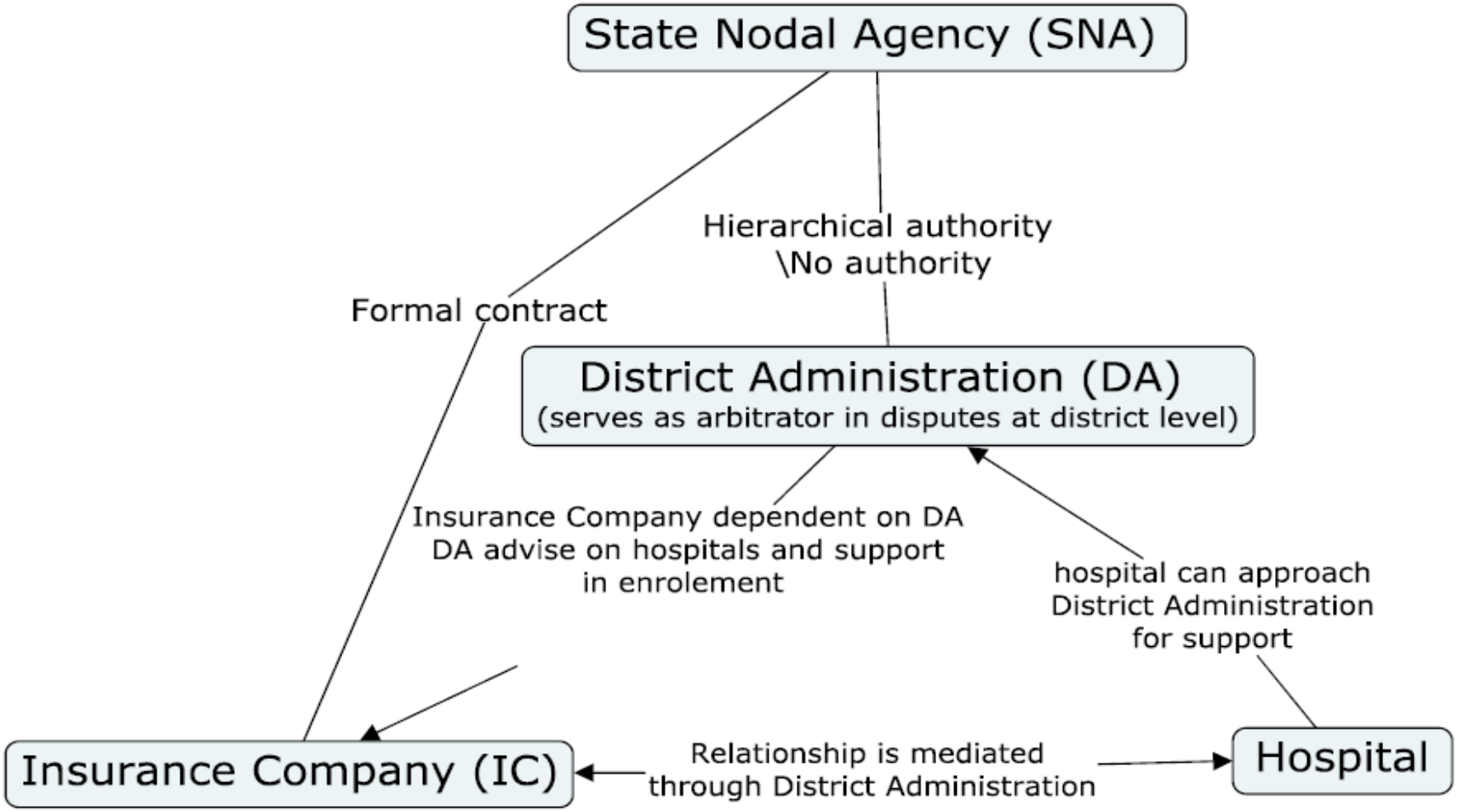
Key Design Elements\2

- Claims Management
  - Claims payment within one month through direct online transfer
- Private institutional arrangement: a three tiered grievance redressal system has been set up in the scheme to address disputes between various parties.
  - No penalty clause : only penalty is termination of relationship
- Detailed contract document updated regularly
- Live data monitoring

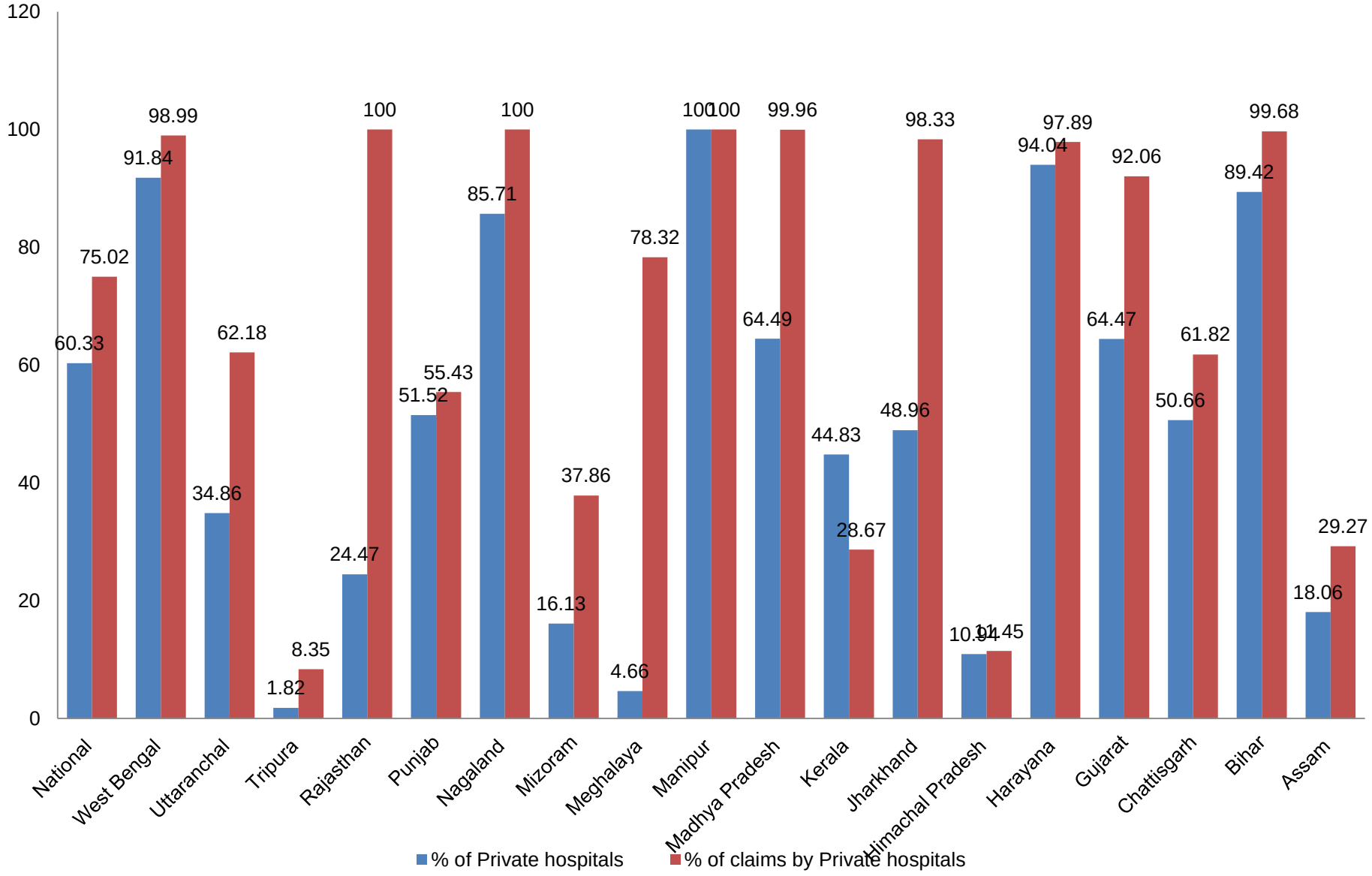
Impact of the Scheme

- Increased healthcare utilization among insured population.
- Increased consumption of healthcare services
- Studies suggest increase in out of pocket expenditure of insured population, similar to other countries.

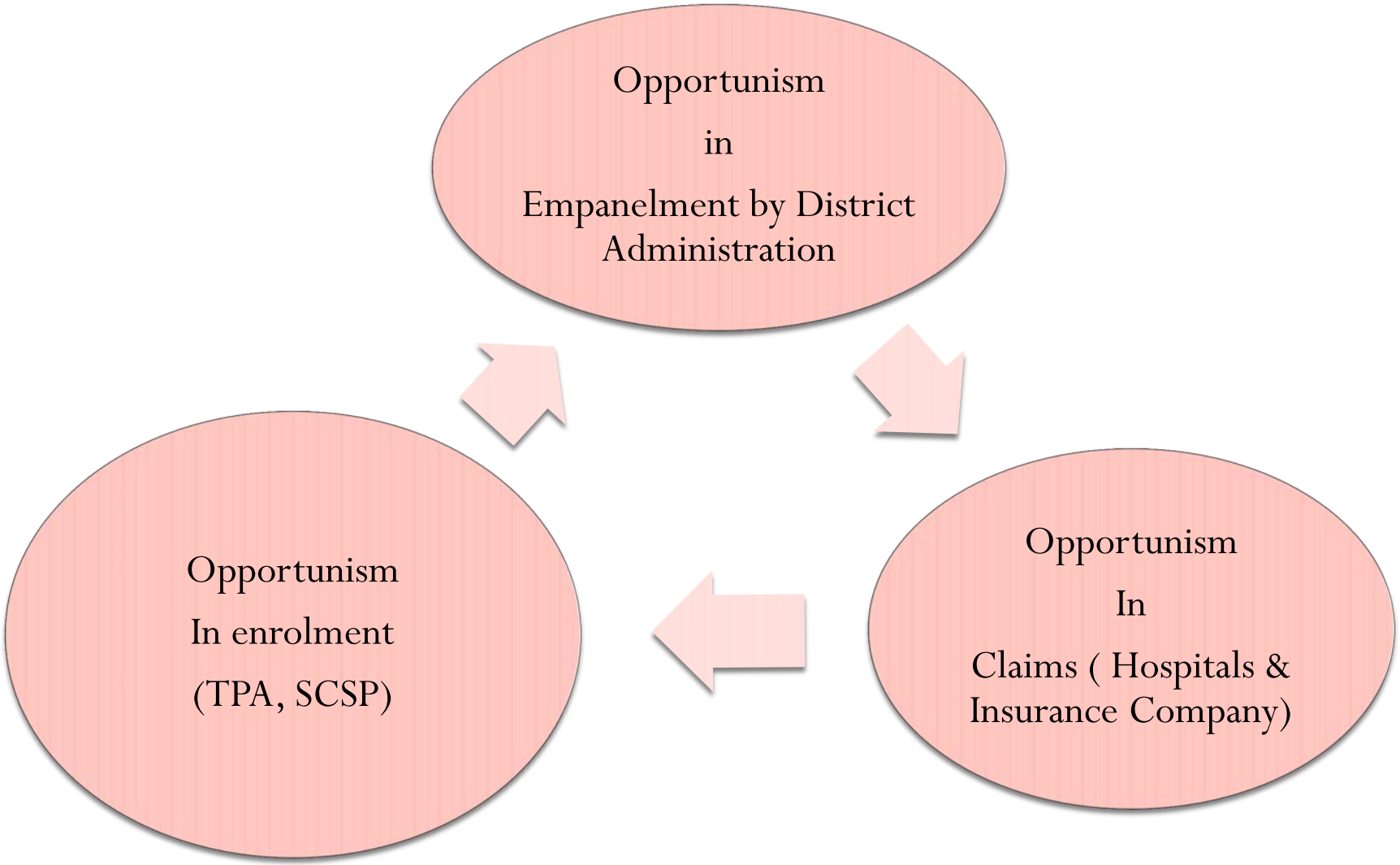
Threat 1 –Opportunism and Poor Benefit Targetting\1



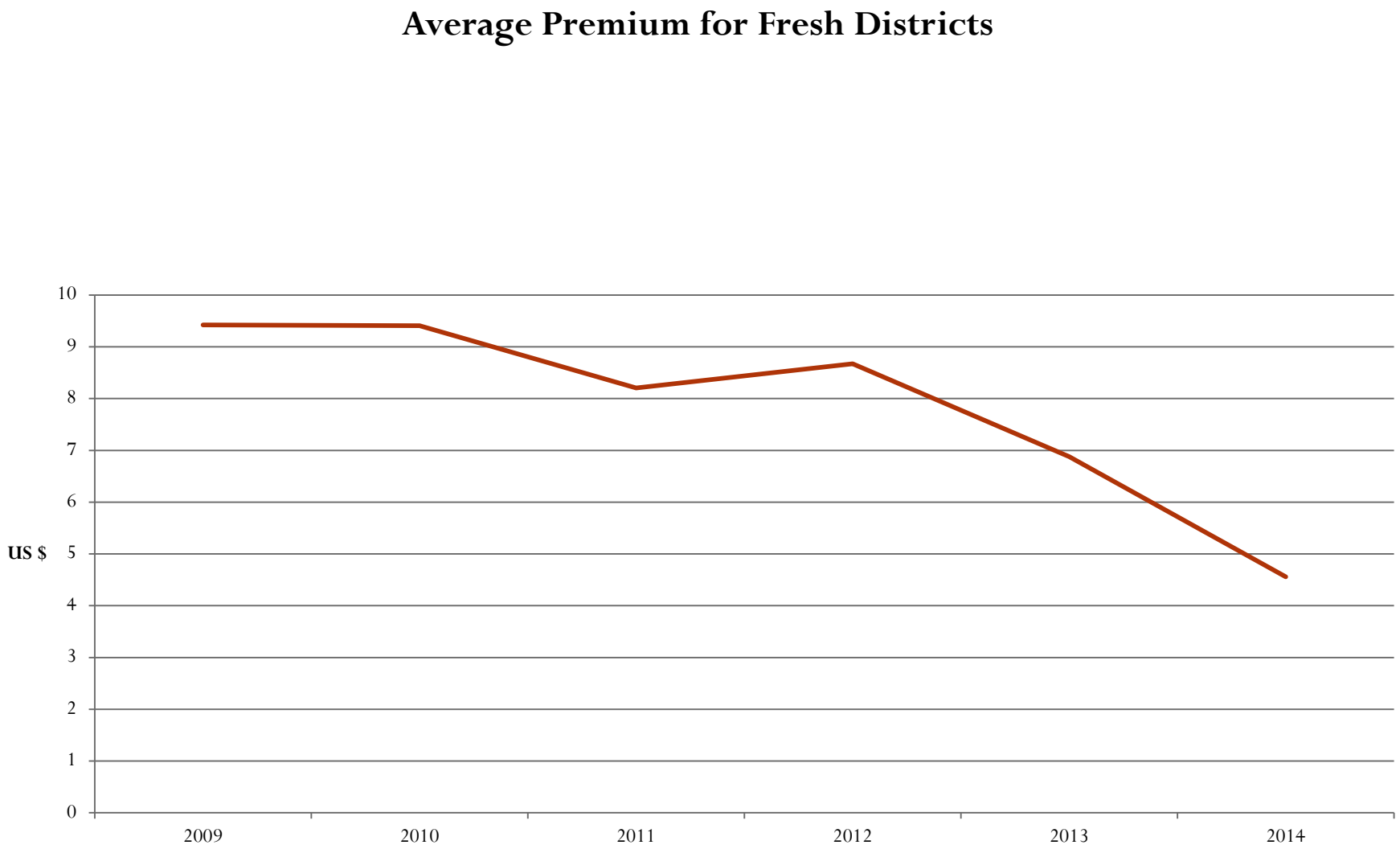
Dominance of Private Hospitals



Vicious Cycle of Opportunism



Actuarially Unsustainable Premiums



Threat 2: Rapid Escalation of Healthcare Cost in Future

- Future trend
  - Triple burden of disease
  - Rapid rise in medical cost inflation
  - Rapid rise in chronic disease and disease related to life style (India has highest number of diabetics)
  - Transit from high old-age support ratio (13 persons), to low (5 persons).
  - 300 Million elderly by 2050.
  - Disabondonment of family support system because of migration , increase in women's participation in labor force.

Key Performance Issues in RSBY\1

- Narrow and Limited Coverage
  - Only covers hospitalization (hospitalization forms only 1/4th of total OOP) → Incentive to convert ambulatory care into hospital based care.
- Lack of competitive supply of providers: Only small volume , low quality hospitals in rural areas.
- Pricing of premiums based on past claim ratios
- Short contract period (two years renewable every year) → Too small investment cycle
  - limited investment in strategies for improving performance -> pricing of premiums , investment on preventive care rather than curative care
- Repeated enrolment of beneficiary
  - Beneficiary fatigue
  - Wrong focus on enrolment rather than service delivery

Key Performance Issues in RSBY\2

- Lack of cost containment
  - Incentivizes curative care rather than preventive care
  - Payment methods incentivizes Supply induced demand, Cream screening , DRG Creep
  - No incentive to insurance company or providers to contain cost
- Heavy reliance on private providers
  - Private hospitals collude to get in the scheme and collude in claims
- Lack of performance incentives to insurance companies and providers.
- Leakages and targeting issues

National Health Insurance Program- Positive Impacts\1

- Increased health insurance coverage of the population from ~ 5% to ~17%.
- Increased access to hospital based care
- Increased supply of providers in rural, under served areas.
- Use of technology and process innovations has advanced options for reforming service delivery
- Online claims and data management has been a pioneer in monitoring for other services.
- Improved regulatory control on unregulated private sector

National Health Insurance Program- Positive Impacts\2

- Provides much needed competition between public and private sector
- Improved political and financial support to health sector.
- Thought limited in scope, but this purchaser -provider split has improved accountability of providers by moving the payment based on inputs to outputs.
- introduced several innovations in the Indian health system
- RSBY and other similar schemes have introduced several innovations in public financing for health- defined entitlements, patient choice (money follows patients), provider empanelment, provider competition (in principle), and separation of purchasing and provision functions

National Health Insurance : Implication for Health Insurance Program Design & Implementation

- Improve design of the programme
  - Duration
  - Bidding process
  - Payment method
  - Monitoring
  - Penalty clauses
  - Comprehensive care
  - Bundling of tasks and conflicting roles
  - Role of consumer
- Improve accountability of district administration
- Role of state level agencies

National Health Insurance : Implications for Private Sector

- Private sector can play an effective role provided
  - GSHIS as long term vision rather that rural business commitment.
  - Innovation –new category of products – low cost no frills healthcare , insurance, and TPA services.
  - Develop capacity – Pricing , Monitoring and provider management, information system
  - Active role in contract design and management

National Health Insurance: Implications for Health System\1

- Increase public expenditure on health
  - More efficient than private.
  - Better approach to risk pooling compared to private \voluntary sources
- RSBY could be a platform to extent coverage to more groups and move towards UHC but only in medium term
  - It mainly focuses on curative high cost care as
    - Relies on consumer to make choices on healthcare services
    - Insurance companies can't be held responsible for long term health outcomes
    - No incentive to invest in preventive care
  - Not suitable for long term care
  - Fragmented care

National Health Insurance: Implications for Health System\2

- Combination of insurance along with fee for service based payment method is sure recipe for cost escalation and therefore must be avoided.
- Health insurance system in India is underdeveloped (lack of epidemilogical data, pricing of premiums , standardization of care, monitoring)and has high transaction cost (TPA)
- Fee for service based payment method and insurance is a recipe for cost escalation

References

- Bali, A.S. & Ramesh, M. (2015), Healthcare Reforms In India, *Public Policy and Administration*. Forthcoming
- Bloom, G., B. Kanjilal, and D. H Peters. 2008. "Regulating Health Care Markets in China and India." *Health Affairs* 27 (4): 952.
- Devadasan, Narayanan, Tanya Seshadri, Mayur Trivedi, and Bart Criel. 2013. "Promoting Universal Financial Protection: Evidence from the Rashtriya Swasthya Bima Yojana (RSBY) in Gujarat, India." *Health Res Policy Syst* 11: 29.
- Government of India. (2011), *Report of the High Level Expert Group on Universal Health Coverage for India.* New Delhi: Planning Commission of India
- Government of India. (2012), Rural Health Statistics in India in 2012, New Delhi: Ministry of Health.
- Jain, Nishant. 2013. "Rashtriya Swasthya Yojana Data Analysis and More". presented at the 5th RSBY National Workshop, Trivandrum, Kerala, April 5. http://www.rsby.gov.in/Presentation5.aspx.
- La Forgia, G., & Nagpal, S. (2012), *Government-Sponsored Health Insurance In India: Are You Covered?*, Washington DC: World Bank
- Maurya, D. (2015), *Inter-organizational relations in public-private partnerships: national health insurance in India,* Doctoral Thesis, National University of Singapore
- Ministry of Labour and EmploymentGovernment of India and Indo-German Social Security Programme, and MoLE, Govt. of India and German Development Cooperation. 2014. *RSBY Connect various Issue*. RSBY Connect. New Delhi. http://www.rsby.gov.in/Documents.aspx?ID=16.
- Radwan, I. (2005), India - Private Health Services For the Poor, Report, Health, Nutrition and Population Discussion Paper, Washington DC: World Bank
- Rao, K Sujatha. 2005. "Delivery of Health Services in the Public Sector." *Health Systems in India: Delivery and Financing of Services, National Commission on Macroeconomics and Health, Ministry of Health and Family Welfare, Government of India, New Delhi*, 43–64
- Reddy, S., Sakthivel Selvaraj, Krishna D. Rao, Maulik Chokshi, Preeti Kumar, V. Arora, S. Bhokare, and I. Ganguly. 2011. "A Critical Assessment of the Existing Health Insurance Models in India." *A Report Submitted to the Planning Commission of India, January, New Delhi*.
- Selvaraj, Sakthivel, and Anup K. Karan. 2012. "Why Publicly-Financed Health Insurance Schemes Are Ineffective in Providing Financial Risk Protection." *Economic & Political Weekly* 47 (11): 61–68.
- Shahrawat, R., and K. D Rao. 2011. "Insured yet Vulnerable: Out-of-Pocket Payments and India's Poor." *Health Policy and Planning*.

Financing Universal Health Care: Philippines

Ramon P. Paterno, MD, MPH & Marlene Bermejo, MD
Universal Health Care Study Group at CPH,
University of the Philippines Manila

August 12, 2015

Context

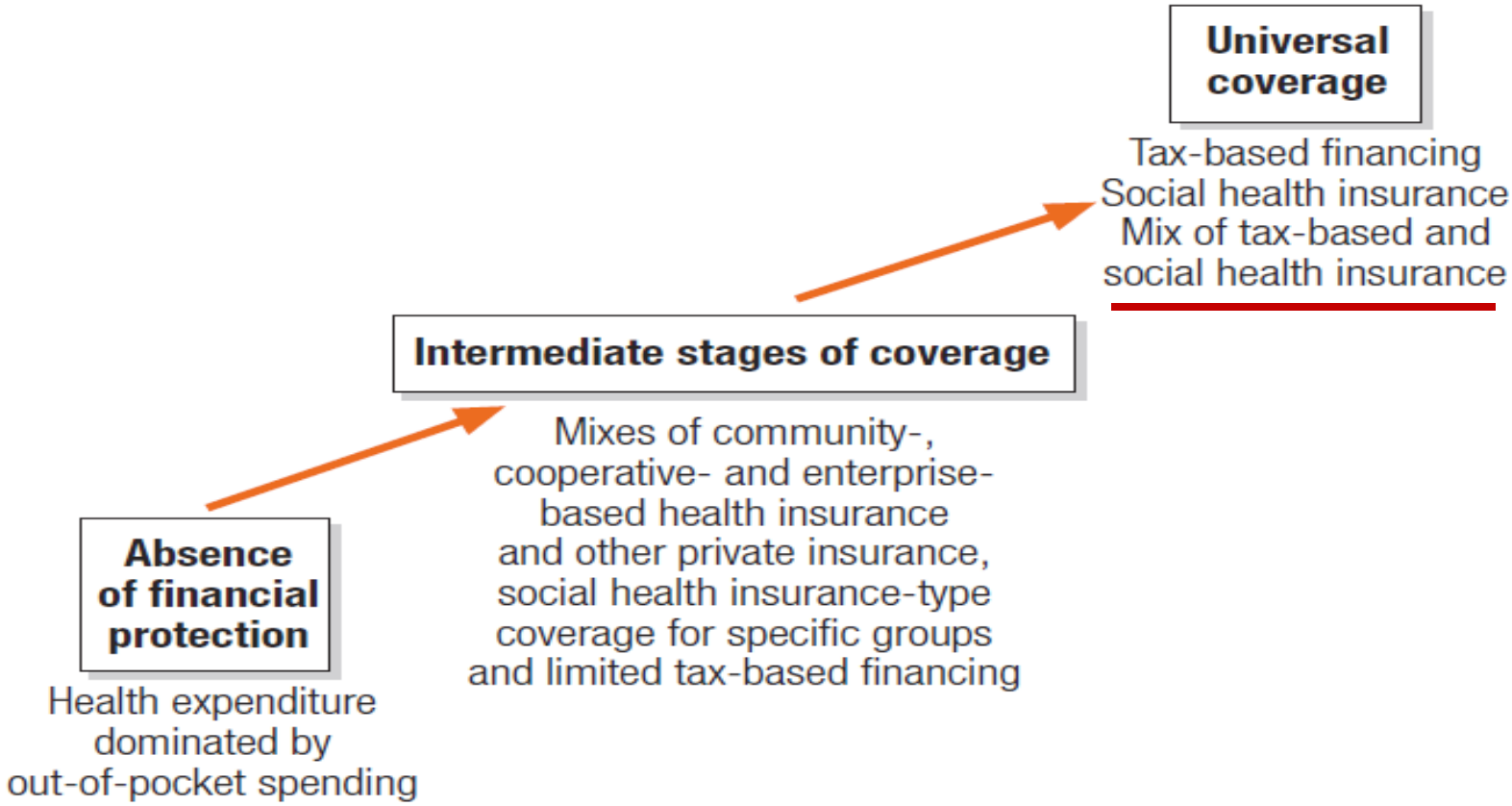
- Archipelagic, 7,000+ islands
- 100m population and growing
- Non-inclusive , jobless growth
- Persistent extreme poverty
- Decreasing manufacturing and agricultural share in GDP
- Growing informal sector
- Health inequities rooted in social inequities

Why Universal Health Care?

because health is a human right

enshrined in the WHO Constitution and in various UN instrumentalities.

WHO: The path to universal coverage is financed by a combination of both tax-based revenues and social health insurance (SHI) premiums



The Philippine National Health Insurance System

1969 — 1995

1969 – 1995: Originated from Medicare

- Covered only the formal sector (gov't & private)
- Unified health benefits from Government Service Insurance System (GSIS) and Social Security System (SSS)
- Legacy:
  - Inherited staff of GSIS and SSS
  - Source of continuing "pension fund" mentality

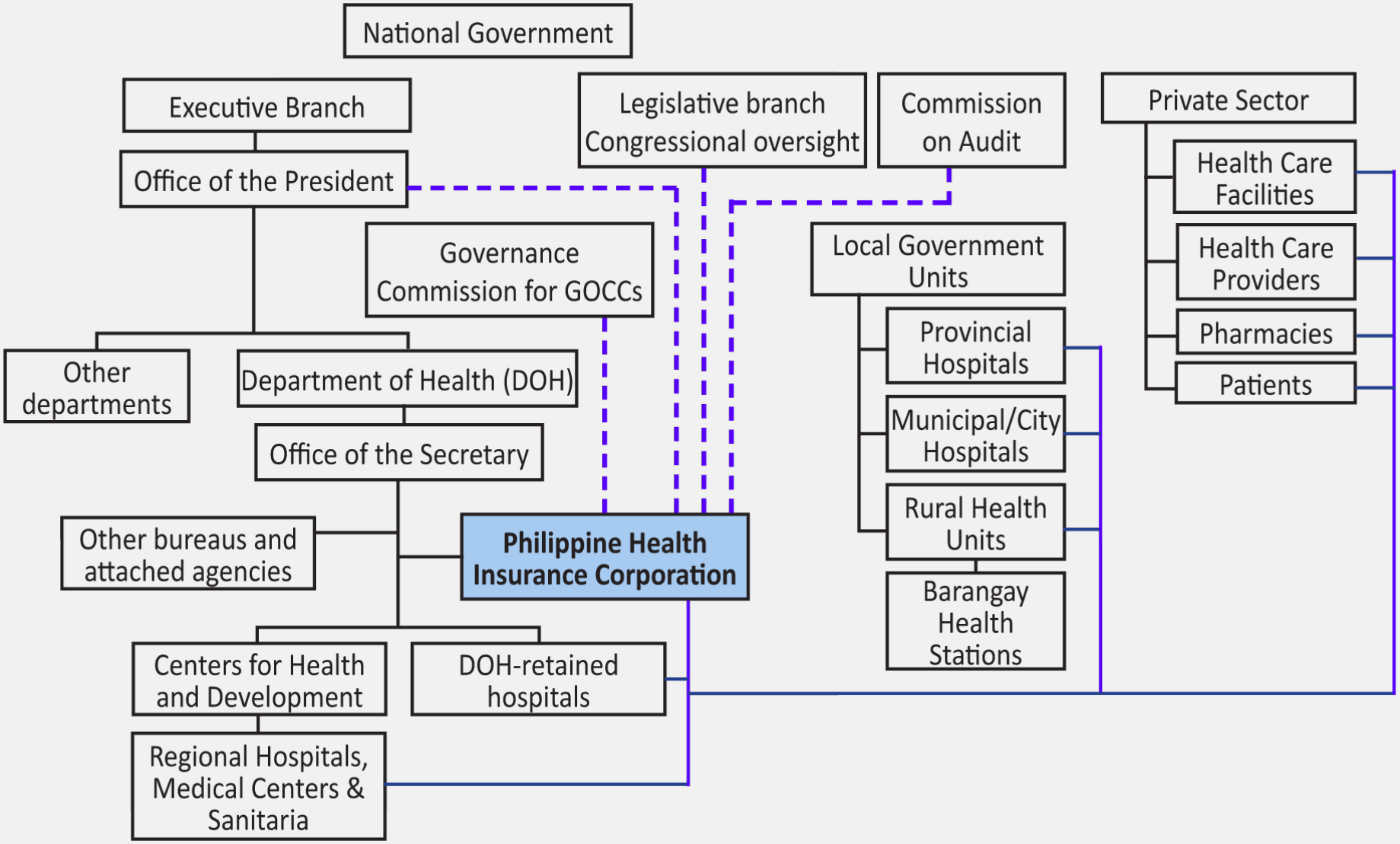
The Philippine National Health Insurance System

1969 → 1995 → 2010

- **1995 – RA 7875 The National Health Insurance Program** –
- To cover and ensure health care to ALL citizens of the Philippines by 2010

  PhilHealth - SINGLE payor

ORGANIZATIONAL STRUCTURE HEALTH SECTOR



THE PHILIPPINE HEALTH SYSTEM

Devolved

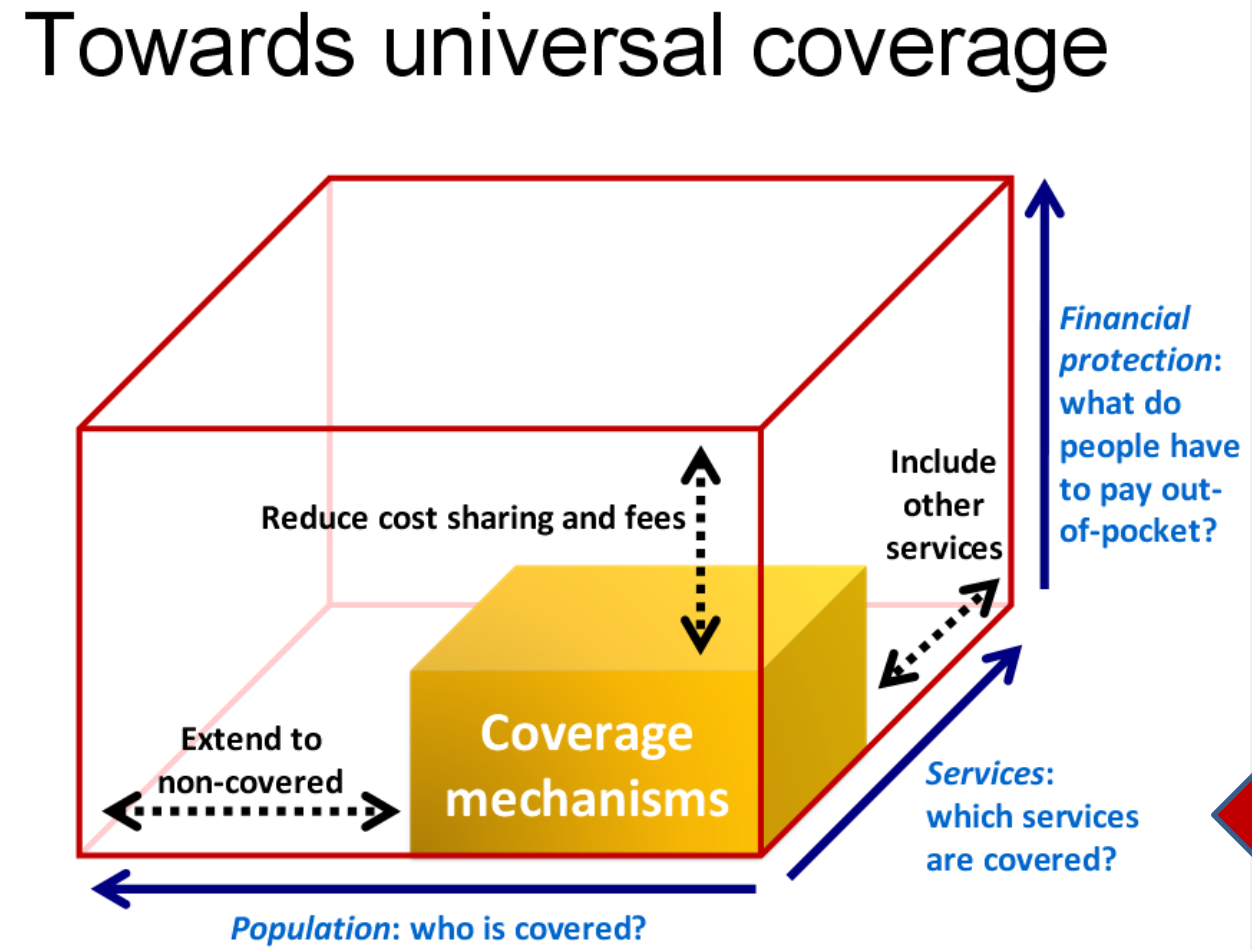
- **DOH** mainly for health policy & planning but has retained hospitals (Regional Hospitals)
- **PhilHealth** – SHI; attached agency but with autonomy as to enrollment, setting premiums, benefits, reimbursements
- **Local governments:**
  - Province – hospitals
  - Municipalities – Public health services

PHILHEALTH'S STRENGTHS – SINGLE PAYOR

DESIGN ISSUES

- PhilHealth as KEY to Health financing reforms
  - Low capacity of government to create fiscal space
- Contributory & premium based
- Membership for entitlements vs health as a human & constitutional right
- Premium based entitlements vs costing of population health needs (true capitaton)
- Premium affected by low paying capacity of population

In Implementing UHC One Needs to Address the Breadth, Scope, and Depth of Coverage



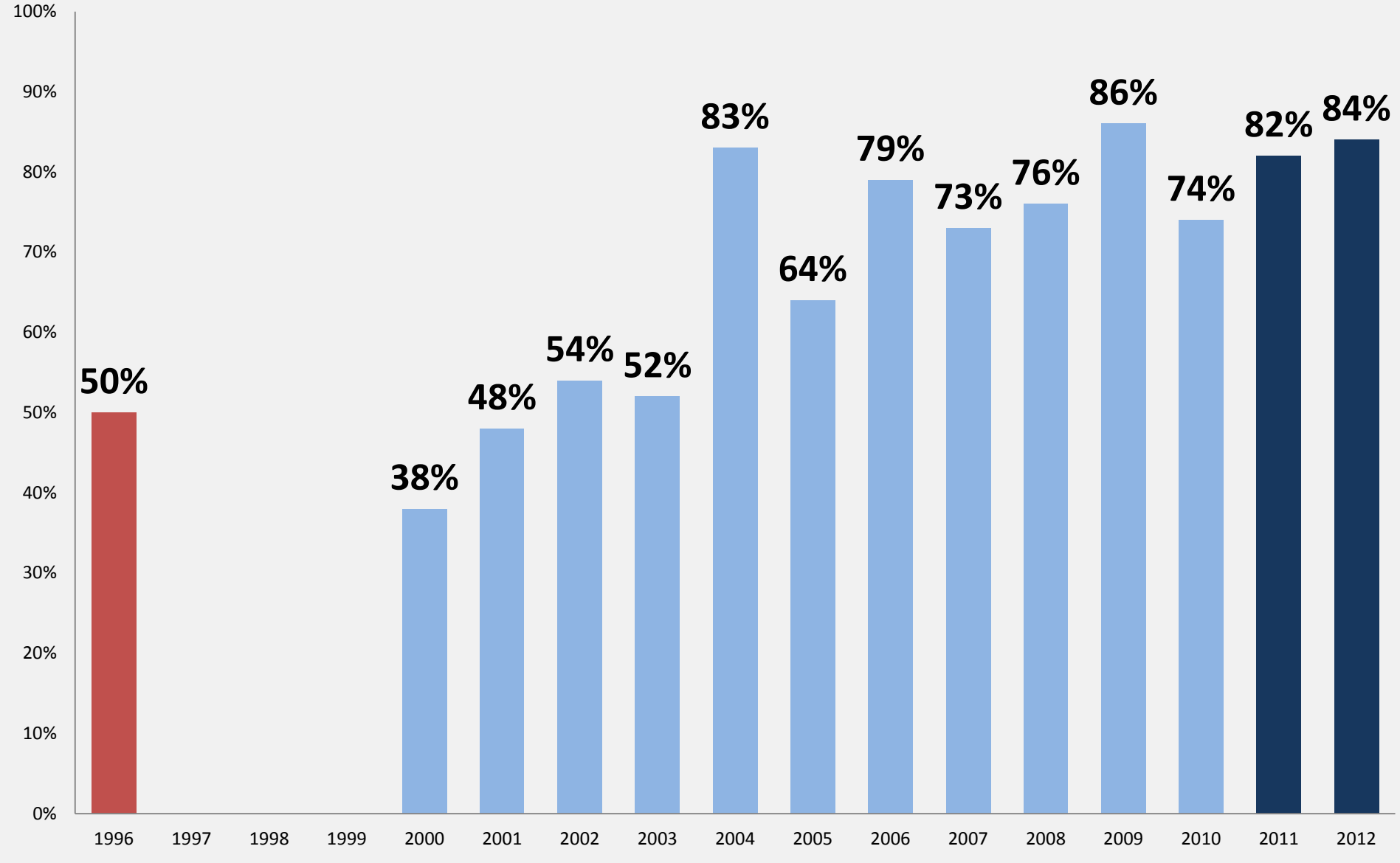
Source: WHO WHR 2010.
UC is defined as: “all people have access to services and do not suffer financial hardship paying for them”.

PHILHEALTH'S MEMBERSHIP TYPES

Type	Target	Source of premiums	% of PHIC members	Benefits
Formal	Govt & private employees	Contributory; 3% of monthly income equally divided between employer & employee	34% private 7% govt	Standard
Independently paying members	Informal sector	Contributory; P200 ($4.40) per month	18%	Standard
Overseas workers	Overseas filipinos	Contributory	10%	
Indigent	Poorest 40%, identified by DSWD	P200 ($4.40) / month paid by National Govt	29%	Std + OPB + NBB in govt hospitals
Sponsored LGU		P200 ($4.40) / mo. paid by sponsor (LGU etc)		Std +OPB + NBB in govt hospitals
Lifetime members	Retirees who have paid 10 yrs	Non-contributory	2%	Std

PHILHEALTH'S POPULATION COVERAGE 2000 -2012

(PHIC DATA SHEET)

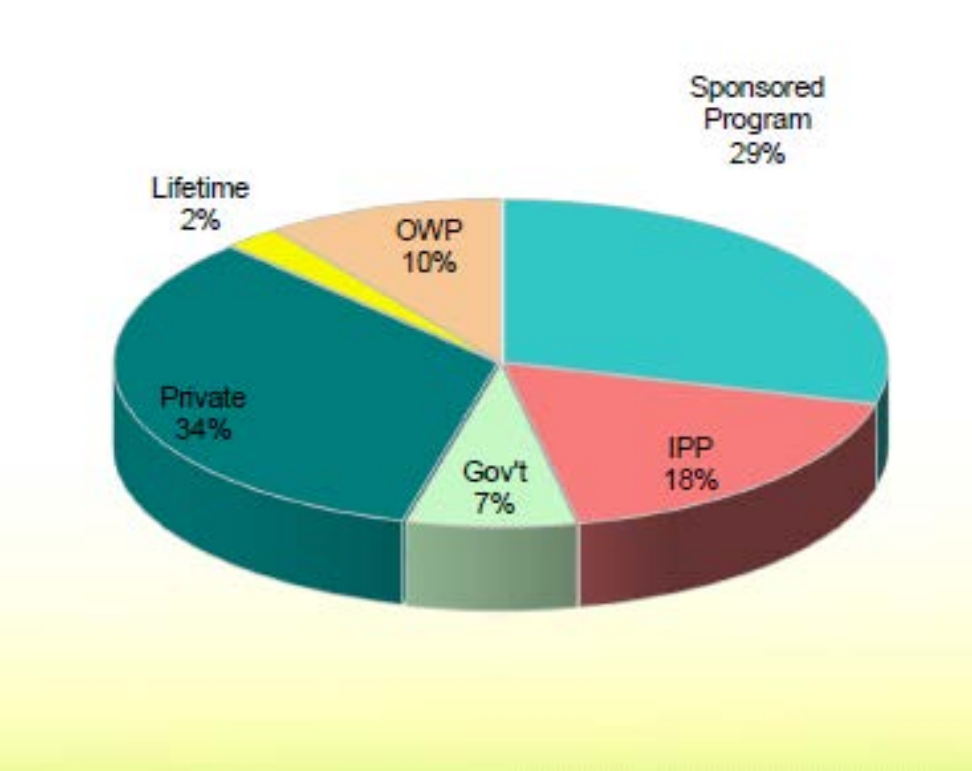


PHILHEALTH'S MEMBERSHIP

***84% population coverage 2012**

For Sonsored members:

- The Department of Social Welfare and Development **(DSWD)** identifies the poor qualified for the conditional cash transfer (CCT) program.
- CCT poor automatically enrolled as Sponsored Members.
- Expanded to cover the poorest 40% of families (2015)
- **Local government** sponsor their indigent residents



PhilHealth's Stats & Charts 2012

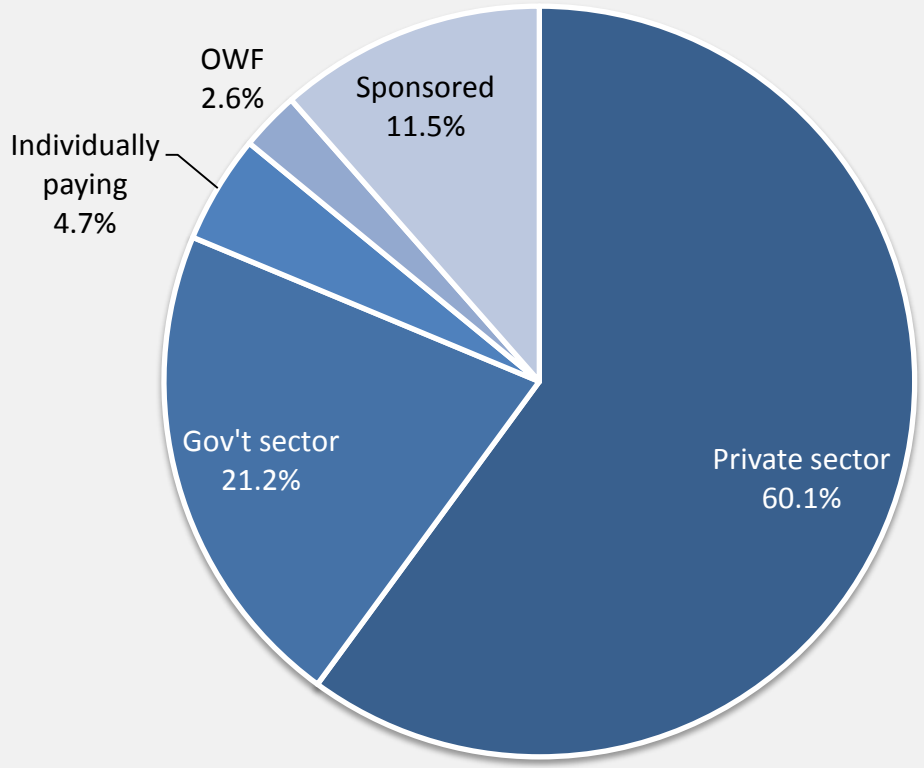
HEALTH FINANCING FUNCTIONS: POOLING

PhilHealth

- **Total premiums collected 2010 – P31.1B ($723M)**

Average 2007-2010

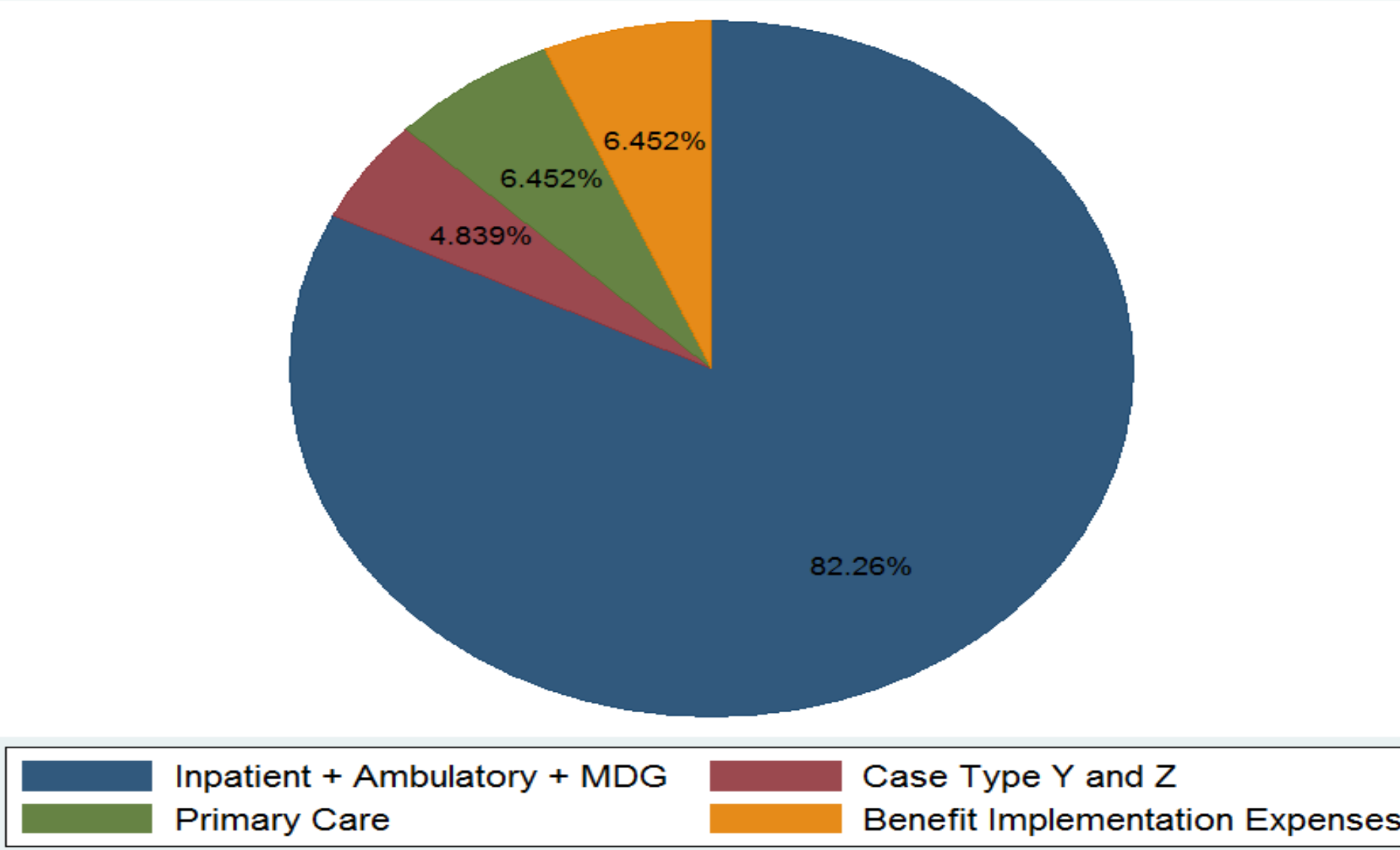
- **88.6%** – paid up premiums (formal sector, IPP, OWF)
- Only **11.5% subsidized** for Sponsored members
- **4.7%** - **Informal Sector** (Individually paying program)



Average Premium distribution 2007-2010

Paterno, Bermejo 2012

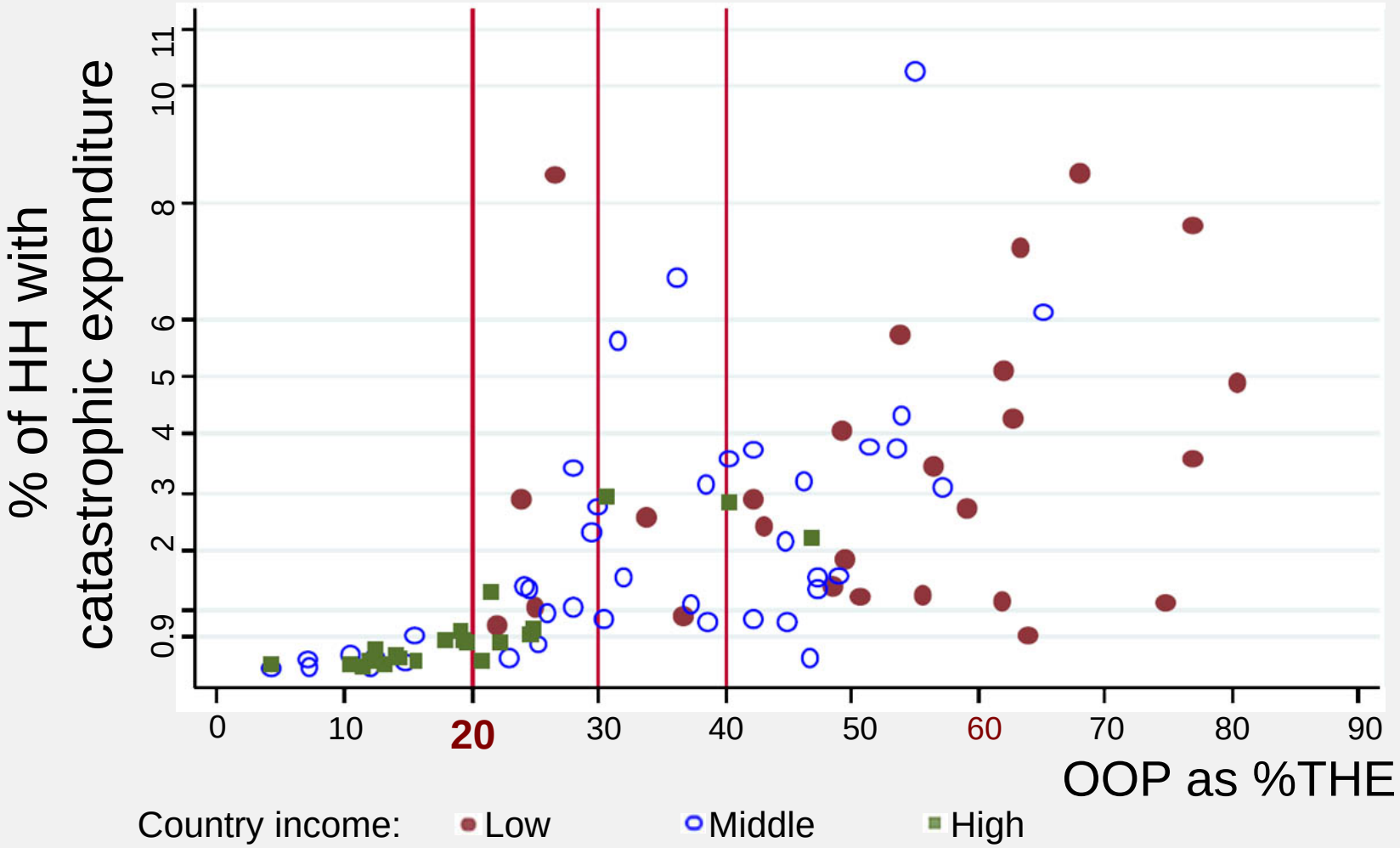
PHILHEALTH'S BENEFIT COVERAGE:
PHIC STATS & CHARTS 2012



2011 Benefit payment was ONLY 34 billion pesos

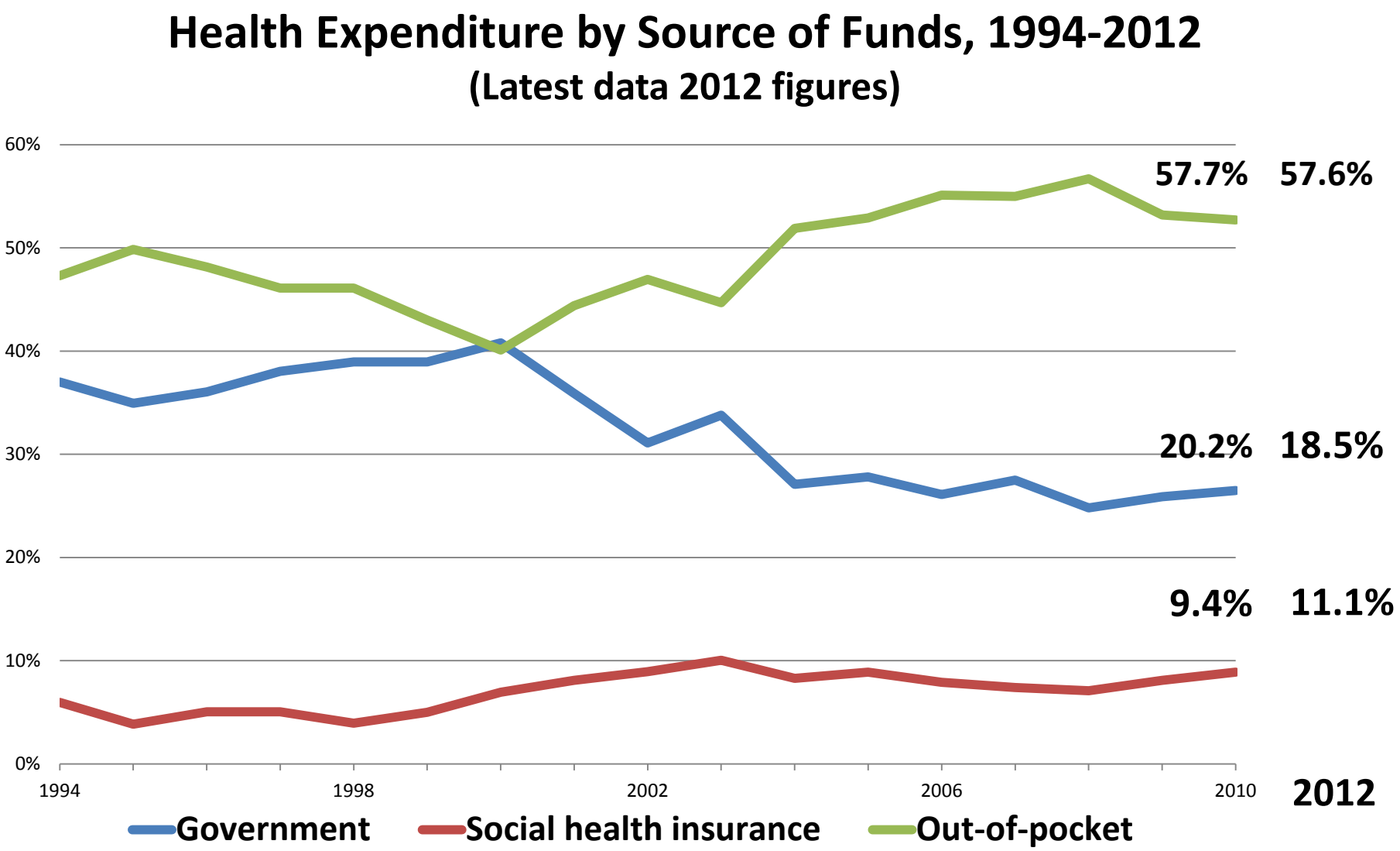
(IN BILLION PESOS)	2012	2013	2014	2015	TOTAL
BENEFITS	**58**	**77**	**92**	**103**	**330**
INPATIENT + Ambulatory+ MDG	51	65	74	81	**271**
Paid by Case Rates + FFS	46	55	64	71	236
Paid by Global Budget: *(ACCESS BENEFITS → SUPPORT TO HEALTH FACILITY ENHANCEMENT)*	5	10	10	10	35
CASE TYPE Y/Z *(CATASTROPHIC)*	3	3	4	4	**14**
PRIMARY CARE	4	9	14	18	**45**
BENEFIT IMPLEMENTATION EXPENSES	*4*	*5*	*7*	*7*	***23***
FINANCING SOURCES					
PREMIUM COLLECTIONS	50	67	76	79	**272**
INVESTMENT INCOME	6	5	5	3	**19**
CHARGE FROM RESERVE FUND	6	10	18	28	**62**
Reserve Fund	101	91	73	**45**	

Why must OOP be 20% of THE?



Adapted from Xu, K et al. (2007) . Protecting Households from Catastrophic Health Spending. *Health Affairs* 26 No. 4: 972-983.

Proxy for Cost Coverage



Divergent paths: Philippines and Thailand

1970

- Population 36 M each
- Average income: $250
- Similar economic structure:
  - Services: 47% vs 45%
  - Industry: 27% vs 23%
  - Agriculture: 26% vs 32%

2009

- RP: 92M vs Thai: 67M
- Ave. income: $1,796 vs $4,062
- Economic structure
  - Services: 55%
  - Industry: 30% vs 43%
  - Agriculture: 15%

Thailand's Universal Coverage Scheme 2002

Table 2 Health insurance schemes when universal coverage was achieved, early 2002

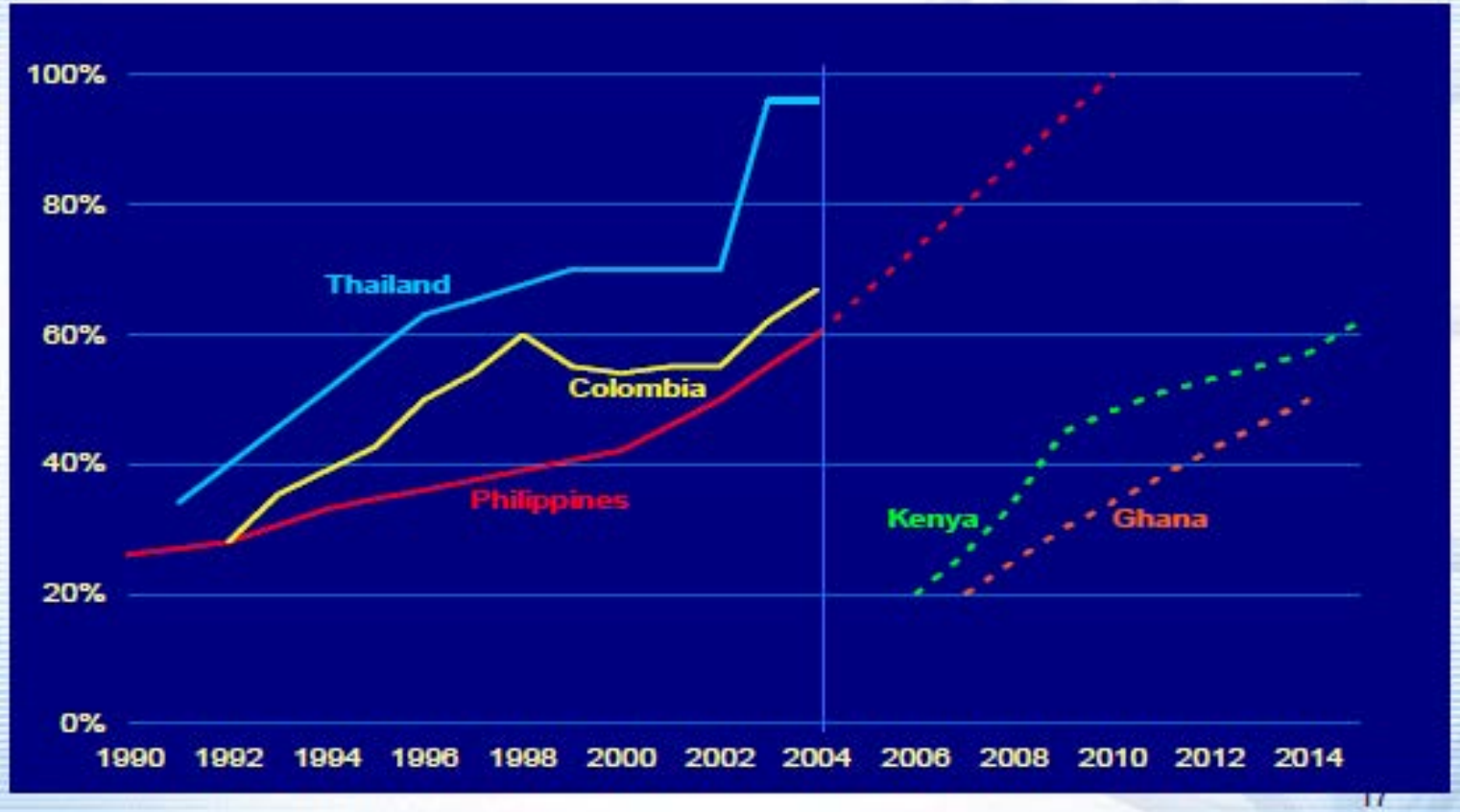
Scheme	Target Population	Coverage	Source of fund	Payment method
Civil Servant Medical Benefit Scheme Since 1963	Government employee, retiree and dependants	6 million, 10%	General tax, non contributory	Fee for service reimbursement model
Social Health Insurance Since 1990	Private sector employee	8 million, 13%	Payroll tax tripartite contribution	Capitation inclusive OP, IP
UC Scheme Since 2002	Rest of population	47 million, 74%	General tax, non contributory	Capitation OP and P&P. global budget and DRG for IP

Bismarck vs. Beveridge Is there still a debate?

John Langenbrunner PMAC 2012

HNP

There is a Long Road to Universality



Source: Hsiao, 2005

WHY is UCS Non-Contributory

"It is technically not feasible to achieve Universal Coverage rapidly with the application of the contributory scheme. The UC members do not have regular cash income… premium collection is difficult …

Direct tax is the most progressive source of financing health care …"

Achieving Universal Coverage in Thailand, What lessons did we learn? Viroj Tangcharoensathien,et al. WHO Commission on Social Determinants, March 2007.

Thailand's benefit coverage

Thailand's UCS: achievements & Challenges (2001-2010)

Table 2: The rising UCS capitation budget approved by the Budget Bill, 2002-2011

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Outpatient	47.8%	47.8%	37.6%	38.8%	38.7%	33.1%	27.4%	31.9%	34.7%	35.8%
Inpatient	25.1%	25.1%	38.1%	39.8%	36.5%	42.3%	49.6%	45.6%	44.0%	41.9%
High cost	2.7%	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Accident and emergency	2.1%	2.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Dental care	0.0%	0.0%	0.2%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%
Prevention and promotion	14.6%	14.6%	15.8%	15.0%	13.1%	12.5%	11.5%	11.4%	10.9%	10.4%
Capital replacement	6.9%	6.9%	7.3%	5.5%	7.5%	7.2%	6.6%	6.5%	6.0%	5.5%
Emergency medical services	0.8%	0.8%	0.8%	0.7%	0.6%	0.5%	0.5%			
Disability						0.2%	0.2%	0.2%	0.2%	0.3%
No-fault liability										0.1%

Regional Context

	THE (%GDP)	GGHE (%THE)	SHI (%THE)	OOP (%THE)
Malaysia	4.4	44.4	0.4	40.7
Philippines	3.9	34.7	7.7	54.7
Indonesia	2.2	54.5	8.7	30.1
Vietnam	7.1	39.3	12.7	54.8
Thailand	3.7	73.2	7.1	19.2

From Tangcharoensathien, V. et al. (2011). Health-financing Reforms in Southeast Asia: Challenges in Achieving Universal Coverage. *The Lancet*, 377(9768), 863 - 873

World Health Bulletin 2012

Kutzin:

- UHC – requires public financing, compulsory with subsidies for the poor
- Altho may come from general govt revenues or SHI premiums
- General govt revenues (GGR) essential for UHC
- Need for GGR in proportion to informal sector
- Implies moving away from idea of predominantly contributory coverage

"… you really develop a new kind of SHI, not the German model… a new model … you ask these formally employed people to pay, but you use general revenue taxes (to) subsidize the premium for the poor people and near poor. That's also social health insurance.

Now if you want to see how that works, look at Thailand…"

William Hsiao

Professor of Economics

Harvard School of Public Health

2012 Jan 9 . Roundtable Discussion by the Council on Foreign Relations, Washington DC.

The way forward

Synthesis of 2006 International conference on the Informal Sector co-sponsored by PhilHealth:

- “Develop policy strategy justification for tax financed universal SHI coverage as best option to serve variety of country contexts
- Re-deploy intellectual, institutional and other resources to focus attention on improving how SHI spends its funds to pay or buy health care for improved health, financial protection, public satisfaction, at scale and sustained
- Long road of learning in SHI should be about spending wisely for outcomes rather than about raising funds.”


INQUIRER
NEWS
Advertisement
CLICK HERE TO LEARN MOR
Authorised by the Australian Government, Capital Hill, Canberra.
HOME
NEWS
SPORTS
LIFESTYLE
ENTERTAINMENT
BUSINESS
TECHNOLOGY
OPINIO
LATEST NEWS STORIES
HEADLINES
WORLD
NATION
REGIONS
METRO
CITIZ
Latest Stories
Police chief eyed for Cebu City axed in Negros Oriental
Home > Newsinfo > Headlines > Nation > Filipinos must demand rights to health, housing, education, says ex-CJ Puno
Filipinos must demand rights to health, housing, education, says ex-CJ Puno
By Leila B. Salaverria
Philippine Daily Inquirer
1:43 am | Sunday, July 7th, 2013
+1 0
Tweet 0
Share 3
Share 3
Recommend 5
Filipinos must be able to demand from their government their right to housing, education and health, or these socioeconomic rights would remain mere words on paper, according to retired Chief Justice Reynato Puno.

THANK YOU!

INOVASI DIBIDANG PELAYANAN KESEHATAN DI KABUPATEN BANGKA TENGAH

Oleh:
H. ERZALDI ROSMAN.S.E.,M.M.
BUPATI BANGKA TENGAH

PEMERINTAH KABUPATEN BANGKA TENGAH
Komplek Perkantoran dan Pemukiman Terpadu Pemerintah Kabupaten Bangka Tengah
Jl. Raya By Pass Koba 33181 Telp./Fax. (0718) 7362026

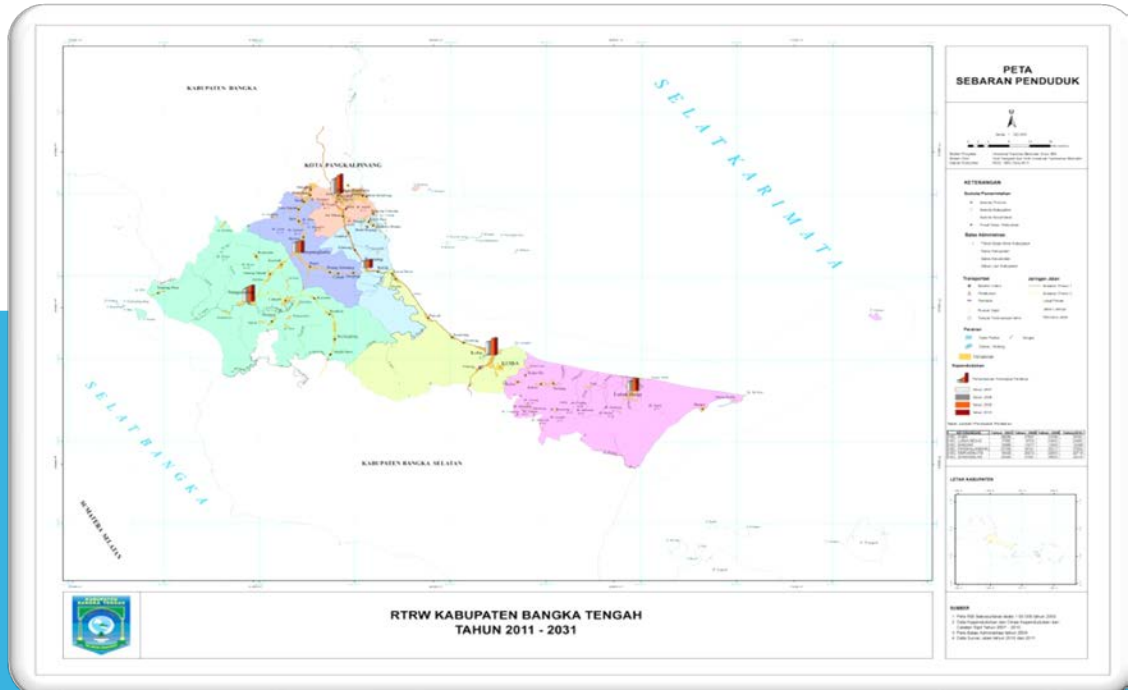
MUATAN

- Gambaran Umum Wilayah
- Permasalahan
- Kebijakan umum di bidang kesehatan di kabupaten bangka tengah dan Implementasi
- Pendanaan

PEMERINTAH KABUPATEN BANGKA TENGAH
Komplek Perkantoran dan Pemukiman Terpadu Pemerintah Kabupaten Bangka Tengah
Jl. Raya By Pass Koba 33181 Telp./Fax. (0718) 7362026

LINGKUP WILAYAH KABUPATEN BANGKA TENGAH PROPINSI KEP. BANGKA BELITUNG

1. Lingkup Wilayah Perencanaan Luas Daratan ± 227.911,61 ha ditambah lautan ± 197.773 ha, dengan populasi 167.204 jiwa.
2. Batas-batas Wilayah Meliputi:
   a. Sebelah utara dengan Kabupaten Bangka dan Kota Pangkalpinang;
   b. Sebelah timur dengan Laut Cina Selatan;
   c. Sebelah selatan dengan Kabupaten Bangka Selatan;
   d. Sebelah barat dengan selat bangka.
3. Lingkup wilayah perencanaan tdd 6 (enam) kecamatan dan 57 desa/kel:
   a. Kecamatan Koba;
   b. Kecamatan Pangkalanbaru;
   c. Kecamatan Sungaiselan;
   d. Kecamatan Simpangkatis;
   e. Kecamatan Namang;
   f. Kecamatan Lubukbesar.



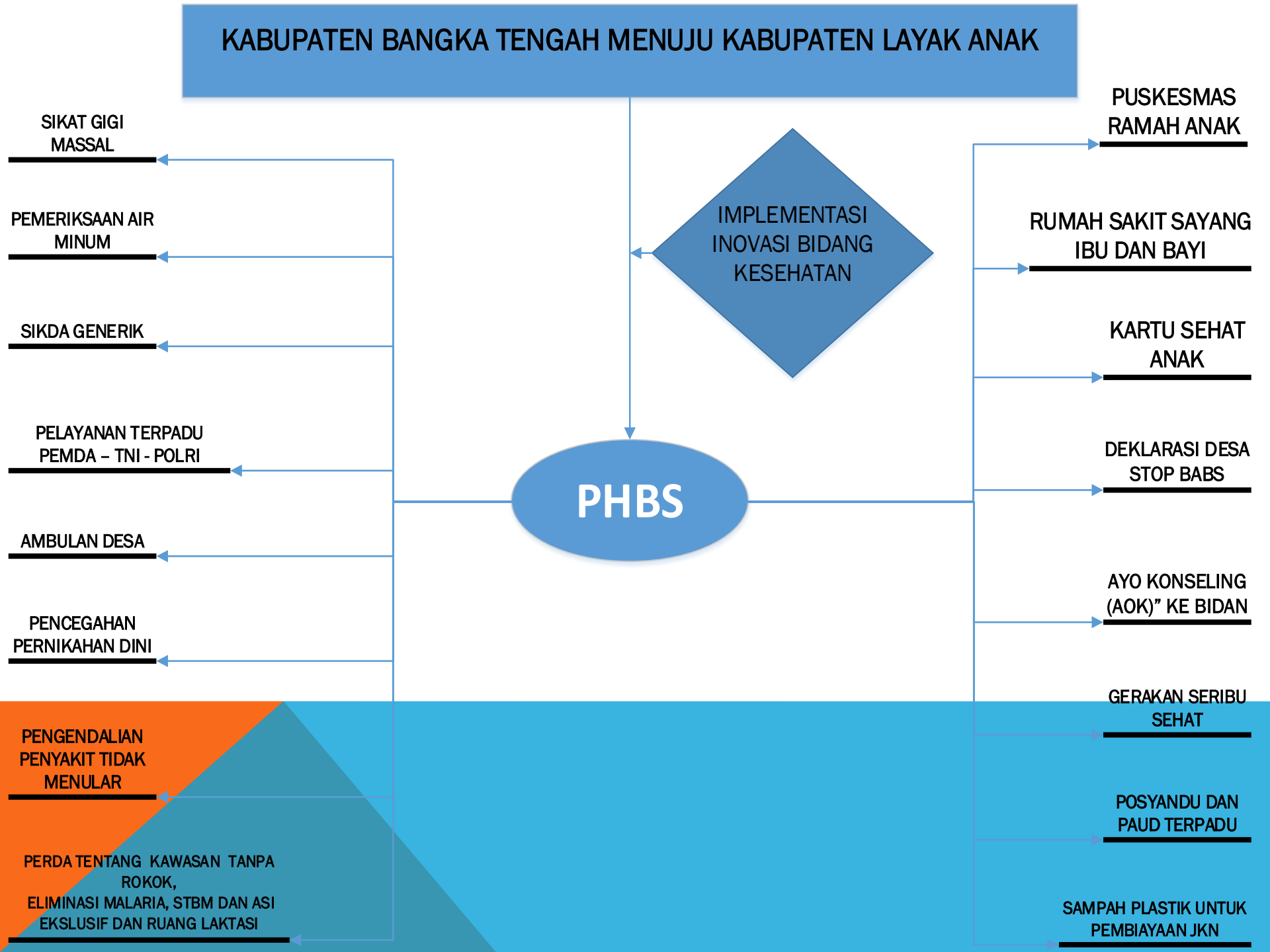
PERMASALAHAN

- Sikap dan perilaku masyarakat yang kurang memperhatikan pola hidup bersih dan sehat
- tindak kekerasan terhadap anak
- Free Seks
- Pernikahan dini (Kehamilan usia Muda)
- Eksploitasi anak
- Narkoba dan minuman keras

KEBIJAKAN UMUM DI BIDANG KESEHATAN DI KABUPATEN BANGKA TENGAH

- Perilaku Hidup Bersih dan Sehat (PHBS)
- Peran Pemerintah Sebagai Fasilitator
- Peran Aktif Masyarakat
- Peran Aktif Swasta

KABUPATEN BANGKA TENGAH MENUJU KABUPATEN LAYAK ANAK



PUSKESMAS RAMAH ANAK

RUMAH SAKIT SAYANG IBU DAN BAYI

KARTU SEHAT ANAK

DEKLARASI DESA SBS

Video ANAK DUTA SBS

LAGU KREASI STOP BUANG AIR BESAR SEMBARANGAN (SBS)

(VERSI BAHASA INDONESIA)

WAHAI BIBI DAN PAMAN…
MARI KITA BERSAMA, BERHENTI BUANG AIR BESAR SEMBARANGAN

DARI ZAMAN DULU SAMPAI ZAMAN SEKARANG
SAATNYA KITA AKAN BERUBAH, JALANKAN STOP B A B S

WAHAI BIBI DAN PAMAN…
MARI KITA BERSAMA, BERHENTI BUANG AIR BESAR SEMBARANGAN

DARI ZAMAN DULU SAMPAI ZAMAN SEKARANG
SAATNYA KITA AKAN BERUBAH, JALANKAN STOP B A B S
BUANGLAH AIR BESAR PADA TEMPATNYA….

O..IBU DAN AYAH, KAKEK DAN NENEK
SAMA-SAMA KITA BUANG AIR BESAR DALAM WC JANGAN DI HUTAN
BIAR KITA TERJAGA DARI SEGALA PENYAKIT YANG ADA
PENGUMUMAN-PENGUMUMAN….

DESA KITA PUNYA VISI PUNYA MISI UNTUK MAJU KE DEPAN
SAATNYA KITA BUANG AIR BESAR PADA TEMPATNYA
STOP BUANG AIR BESAR SEMBARANGAN
“ AYOO….JANGAN BUANG AIR BESAR SEMBARANGAN LAGI YA!!!

(VERSI BAHASA BANGKA TENGAH)

WAHAI BIK KEK AMANG…
MARI KITE BESAME, BERENTI BIREK SEKAPUT

DARI JAMAN DULU, SAMPE JAMAN SEKARANG
JADILAH KITE NEK BERUBAH, JALANKAN STOP B A B S

WAHAI BIK KEK AMANG…

MARI KITE BESAME, BERENTI BIREK SEKAPUT

DARI JAMAN DULU, SAMPE JAMAN SEKARANG
JADILAH KITE NEK BERUBAH, JALANKAN STOP B A B
SBIREKLAH…KITE PADE TEMPET E….

O…MAK KEK BAK, ATOK KEK NEK
SAME-SAME KITE BIREK DALEM KAKUS JANGAN DI UTAN
BIAR KITE TEJAGE DARI SEGALE PENYAKET YANG ADE

PENGUMUMAN-PENGUMUMAN….

KAMPONG KITE PUNYE VISI PUNYE MISI UNTUK MAJU KE DEPAN
JADILAH KITE BIREK PADE TEMPET E
STOP BIREK SEMBARANGAN

“ YOOO…JANGAN BIREK SEKAPUT AGIK OK !!!! YOOO !!!”

Kegiatan Pemicuan Desa SBS

ARISAN JAMBAN

DEKLARASI “AYO KONSELING (AOK)”

KEGIATAN "AYO KONSELING (AOK)"
KUNJUNGAN RUMAH IBU HAMIL OLEH BIDAN
" AYO KONSELING(AOK) 2 KALI DALAM SEBULAN DENGAN STANDAR 10 T"

GERAKAN SERIBU SEHAT

POSYANDU DAN PAUD TERPADU

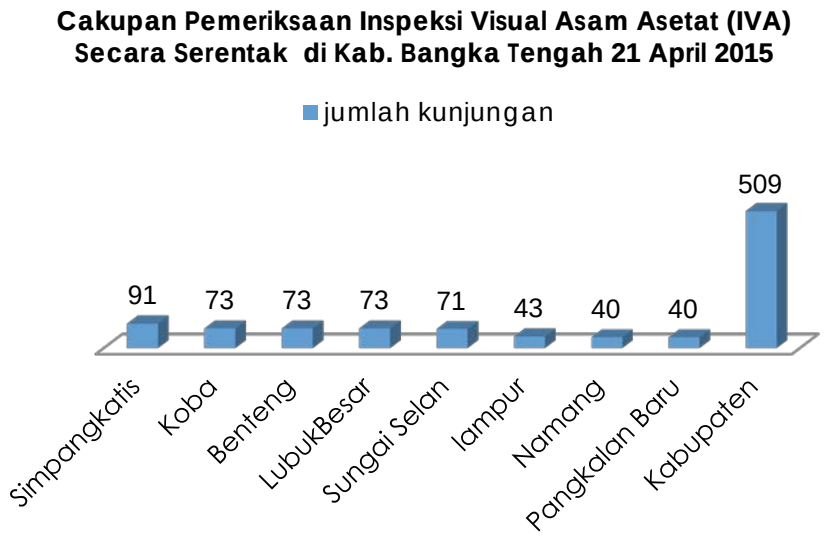
PENGELOLAAN SAMPAH PLASTIK UNTUK PEMBIAYAAN JKN BAGI ANGGOTA KELOMPOK MASYARAKAT YANG TERLIBAT SEBAGAI PESERTA BPJS MANDIRI.

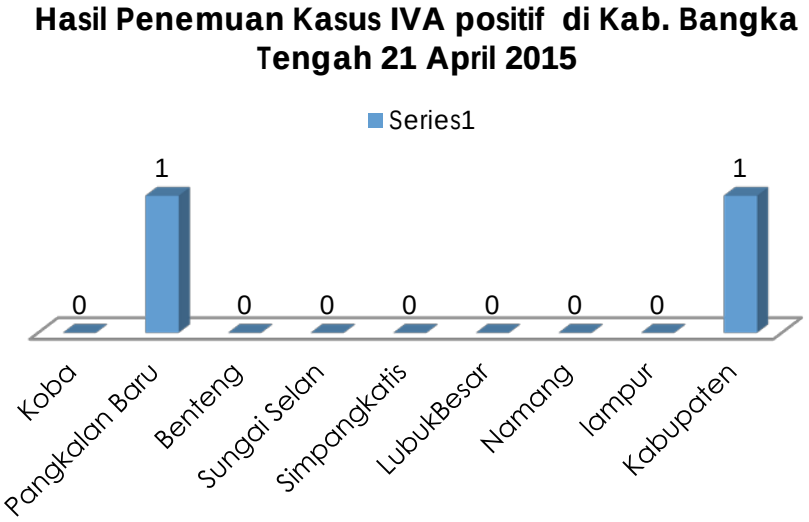
Perda Nomor 2 tahun 2015 Tentang *"Pemberian ASI Ekslusif dan Ruang laktasi"*

PERATURAN DAERAH

1. **Perda nomor 4 thn 2014 ttg *"Eliminasi Malaria"***
2. **Perda Nomor 16 tahun 2014 tentang "*Kawasan tanpa Rokok*"**
3. ***Perda Nomor 1 tahun 2015 Tentang "STBM"***
4. **Perda Nomor 2 tahun 2015 Tentang *"Pemberian ASI Ekslusif dan Ruang laktasi"***

PENGENDALIAN PENYAKIT TIDAK MENULAR





INOVATIF PENDUKUNG KABUPATEN BANGKA TENGAH LAYAK ANAK

BIDANG PENDIDIKAN

1. PEMBERANTASAN BUTA HURUF ALQURAN

KEGIATAN :

- **Gerakan Masyarakat Magrib Mengaji (GEMMAR Mengaji)**
- **“PAGI MENGAJI” Kegiatan mengaji sebelum memulai aktifitas belajar mengajar**
- **Sertifikat lulus TKA/TPA untuk siswa yang akan melanjutkan jenjang pendidikan SMP**
- **Pembinaan Guru mengaji Tradisonal**
- **Pelaksanaan ROHIS di Sekolah**
- **Lomba MTQ, STQ Tingkat Desa, Kecamatan dan Kabupaten**

2. PENGADAAN BIS SEKOLAH

Mengurangi angka kecelakaan lantaran anak yang belum cukup umur membawa sepeda motor.

Bis Sekolah telah beroperasi pada tahun 2006

Jumlah Bis Sekolah yang telah beroperasional 14 unit (8 unit dibiayai APBD Kabupaten, 1 unit bantuan kemenhub RI, 1 unit pelimpahan dari Koperasi Bangka Tengah dan 4 unit bantuan pihak swasta

BUS SEKOLAH DAN BUS PEGAWAI

BIDANG PENDIDIKAN

3. PENCEGAHAN PERNIKAHAN DINI

KEGIATAN :

- Sosialisasi Pencegahan Pernikahan Dini di Sekolah-sekolah (DINKES, BKKBN, DEPAG DAN KUA)
- Surat Edaran Bupati Bangka Tengah Nomor: 451/4178/ii 2014 Tentang Tata Cara Pelaksanaan Pembinaan dan Bimbingan Bagi Pasangan Catin. Diwil. Kab. Bangka Tengah

BIDANG PERLINDUNGAN

1. KABUPATEN LAYAK ANAK (KLA)
   - PADA TANGGAL 9 APRIL 2013 BANGKA TENGAH MENDEKLARASIKAN MENJADI KABUPATEN MENUJU LAYAK ANAK

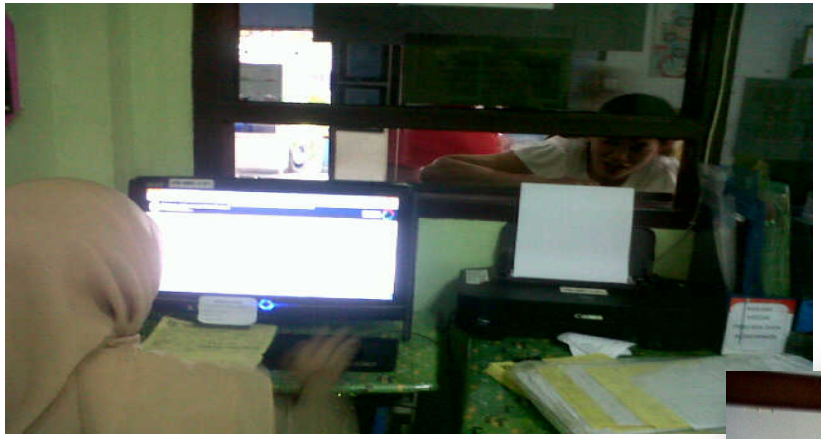
2. KABUPATEN PEDULI HAK ASASI MANUSIA (HAM)
   Pada Tahun 2014 Kabupaten Bangka Tengah mendapat juara 1 Kabupaten Peduli HAM se-Provinsi kepulauan Bangka Belitung

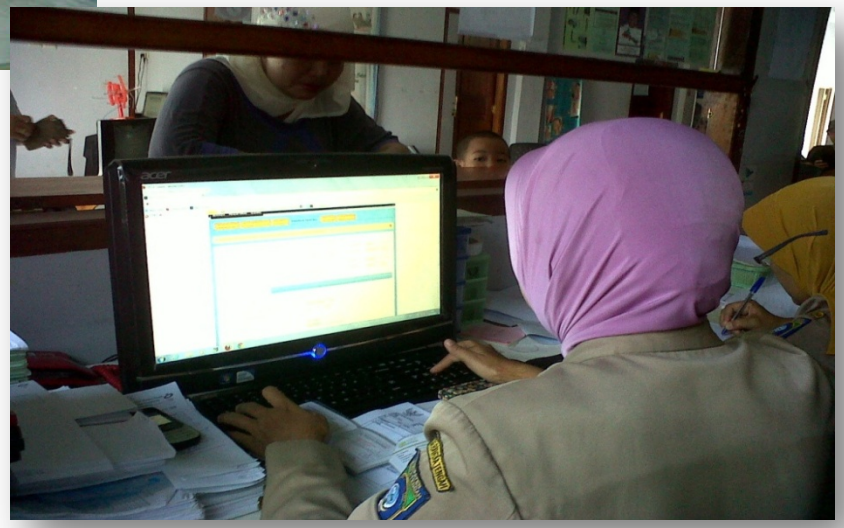
3. LAYANAN TERPADU 24 JAM PEMERINTAH DAERAH KABUPATEN BANGKA TENGAH BERSAMA DENGAN TNI/POLRI

DEKLARASI KLA TANGGAL 9 APRIL 2013

Peringatan Hari Anak di Kabupaten Bangka Tengah

SIKDA GENERIK





Ket Gambar:
Petugas Mengisi Data Pasien pada SIKDA GENERIK

LAYANAN TERPADU 24 JAM PEMERINTAH DAERAH KABUPATEN BANGKA TENGAH BERSAMA DENGAN TNI/POLRI

KEGIATAN SIKAT GIGI MASSAL DIIKUTI 21.000 ANAK SD/MI SE- BANGKA TENGAH

KKN-Universitas Gadjah Mada (UGM)

Sosialisasi dan Gotong Royong pembangunan sanitasi (jamban)

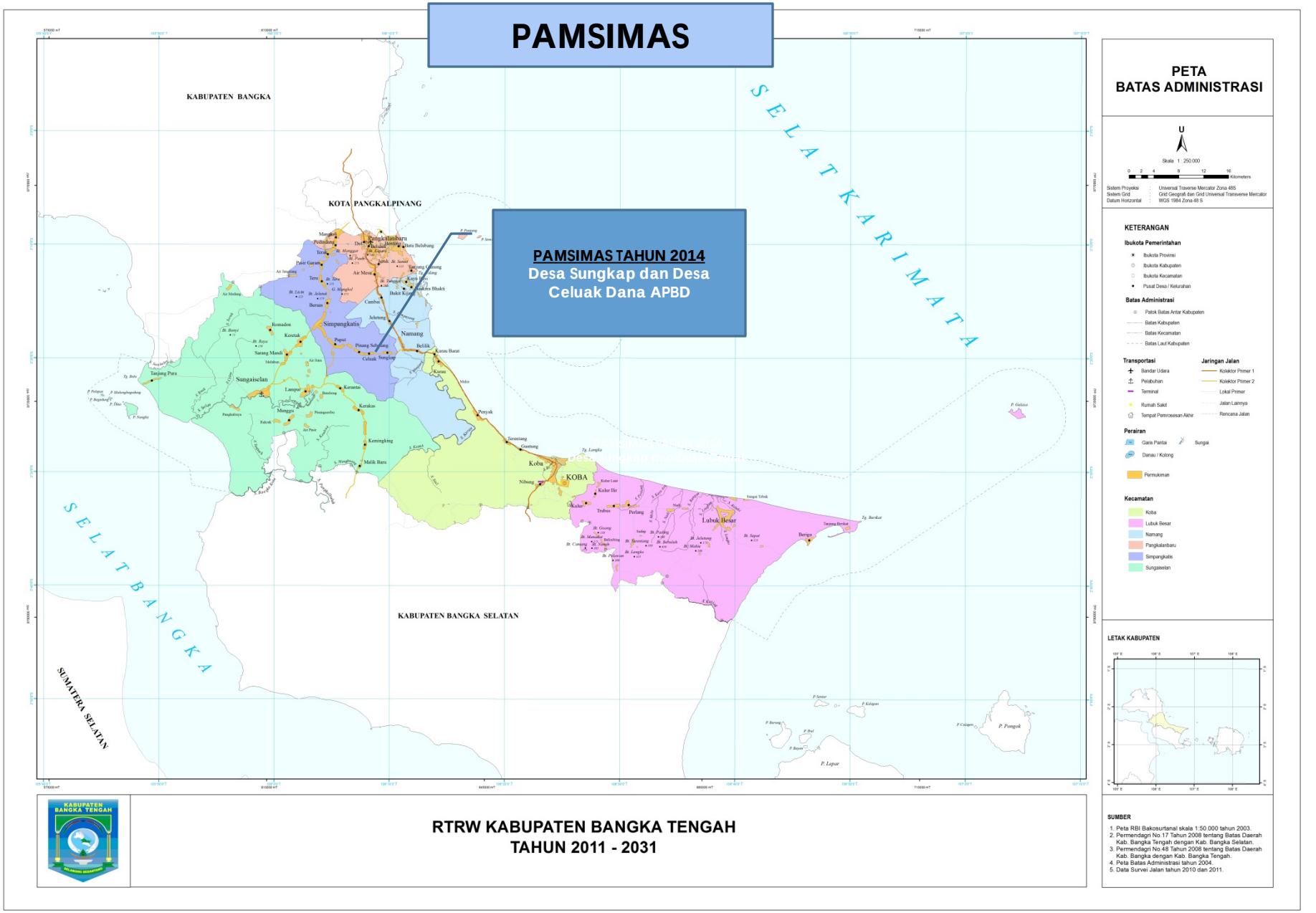
Pemberdayaan masyarakat dengan pola hidup sehat melalui CSR

Partisipasi dan sumbangan pihak swasta di desa belilik

Program Sanitasi Berbasis Masyarakat (Sanimas) dan Penyediaan Air Minum dan Sanitasi Berbasis Masyarakat (Pamsimas)

- Kabupaten Bangka Tengah telah menjadi bagian dari program sanimas sejak tahun 2009 dan sudah mempunyai desa target sasaran sebanyak 14 desa dengan investasi Rp. 6,8 m
- Pamsimas APBD TA. 2014 Total Rp. 310jt dengan 2 desa sasaran.
- Pamsimas APBN TA. 2015 total 1,76 M, dengan 8 desa dan APBD total Rp.130jt dengan target sasaran 1 desa

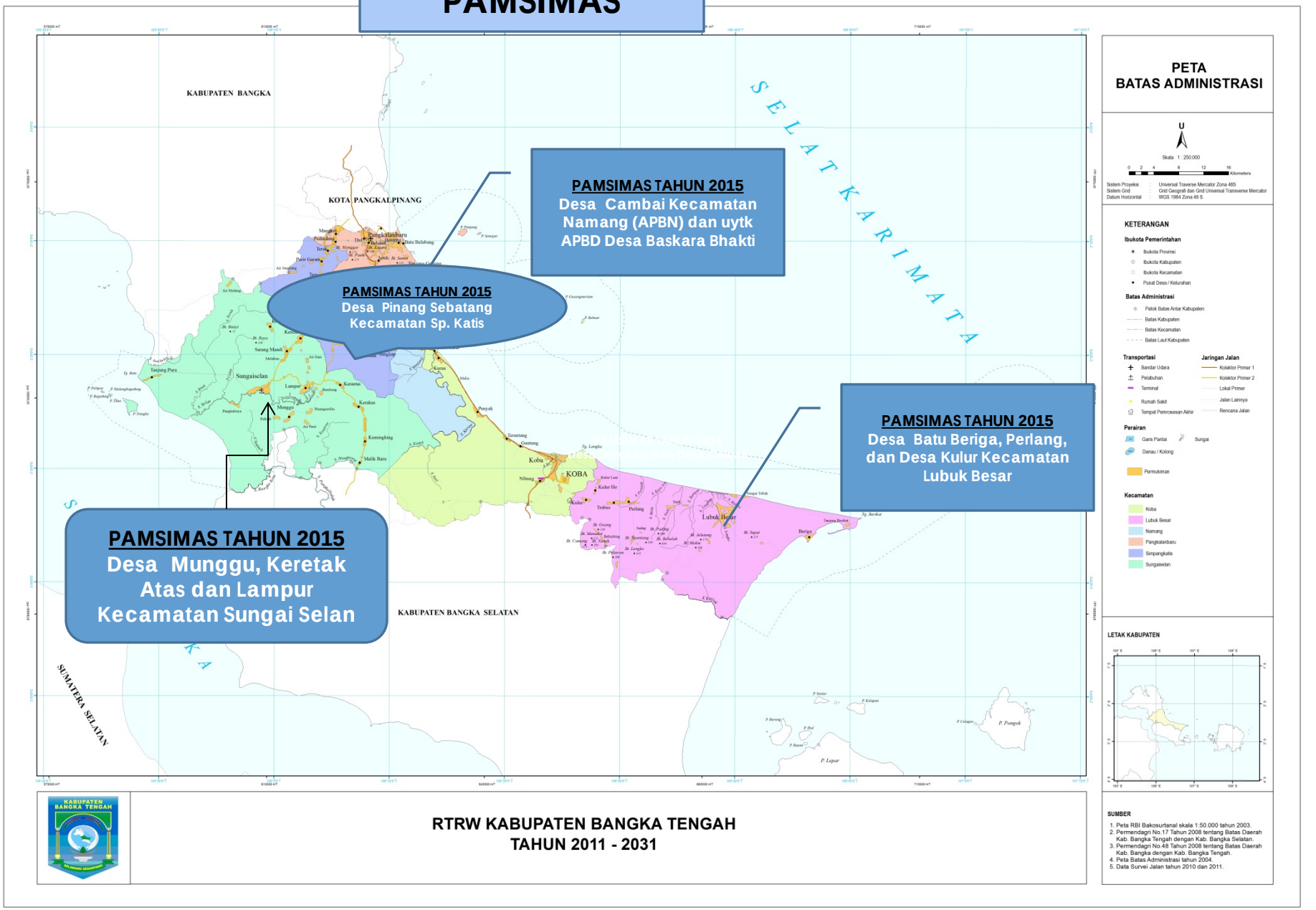
PAMSIMAS



PAMSIMAS TAHUN 2014
Desa Sungkap dan Desa Celuak Dana APBD

RTRW KABUPATEN BANGKA TENGAH
TAHUN 2011 - 2031

PAMSIMAS


KABUPATEN BANGKA
KOTA PANGKALPINANG
KABUPATEN BANGKA SELATAN
SELAT KARIMATA
SUMATERA SELATAN
PAMSIMAS TAHUN 2015
Desa Cambai Kecamatan Namang (APBN) dan uytk APBD Desa Baskara Bhakti
PAMSIMAS TAHUN 2015
Desa Pinang Sebatang Kecamatan Sp. Katis
PAMSIMAS TAHUN 2015
Desa Batu Beriga, Perlang, dan Desa Kulur Kecamatan Lubuk Besar
PAMSIMAS TAHUN 2015
Desa Munggu, Keretak Atas dan Lampur Kecamatan Sungai Selan
Sungaiselan
Koba
KOBA
Lubuk Besar
Namang
Pangkalanbaru
Simpangkatis
PETA
BATAS ADMINISTRASI
KETERANGAN
Ibukota Pemerintahan
Batas Administrasi
Transportasi
Jaringan Jalan
Perairan
Kecamatan
LETAK KABUPATEN
SUMBER
1. Peta RBI Bakosurtanal skala 1:50.000 tahun 2003.
2. Permendagri No.17 Tahun 2008 tentang Batas Daerah Kab. Bangka Tengah dengan Kab. Bangka Selatan.
3. Permendagri No.48 Tahun 2008 tentang Batas Daerah Kab. Bangka dengan Kab. Bangka Tengah.
4. Peta Batas Administrasi tahun 2004.
5. Data Survei Jalan tahun 2010 dan 2011.
RTRW KABUPATEN BANGKA TENGAH
TAHUN 2011 - 2031

Program Sanitasi Berbasis Masyarakat (Sanimas) dan Penyediaan Air Minum dan Sanitasi Berbasis Masyarakat (Pamsimas)

Sanimas Kelurahan Arung Dalam

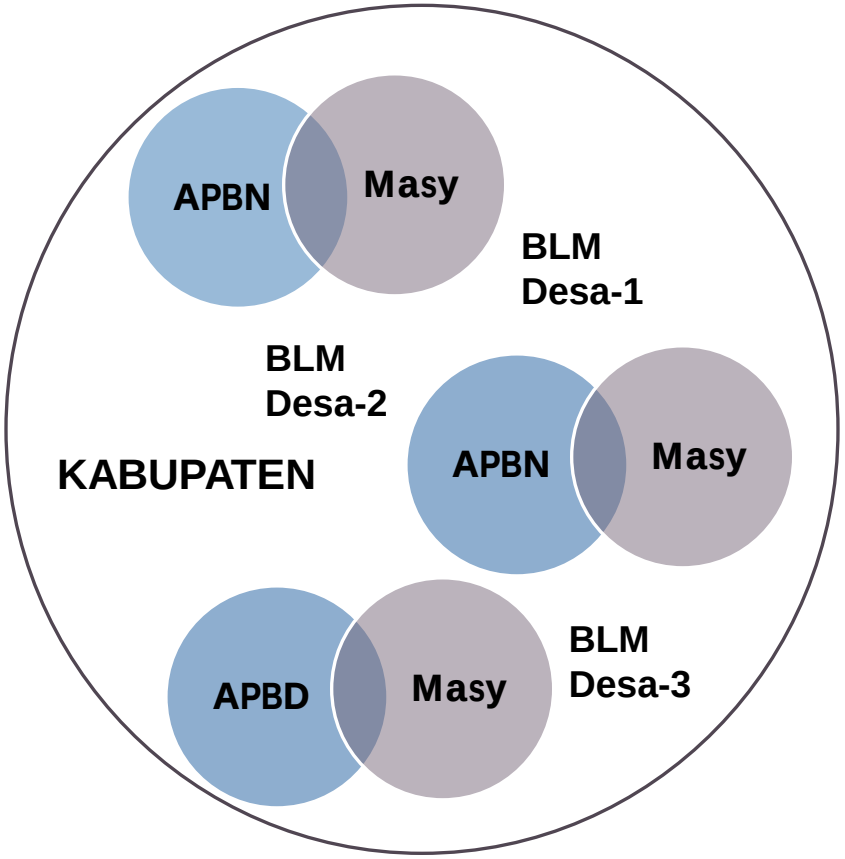
Pamsimas Desa Celuak

PENDANAAN

PUSKESMAS RAMAH ANAK	APBD, SWASTA
RUMAH SAKIT SAYANG IBU DAN BAYI	APBD
KARTU SEHAT ANAK	APBD
DEKLARASI DESA STOP BUANG AIR BESAR SEMBARANGAN	ADD, APBD, Masy
"AYO KONSELING (AOK)" KE BIDAN	APBN, APBD, Masy
GERAKAN SERIBU SEHAT (1.000 RUPIAH PER KK)	APBN, APBD, Masy
POSYANDU DAN PAUD TERPADU	APBD, SWASTA
PENGELOLAAN SAMPAH PLASTIK UNTUK PEMBIAYAAN JKN	Masy
PERATURAN DAERAH TENTANG KAWASAN TANPA ROKOK, ELIMINASI MALARIA, STBM DAN ASI EKSLUSIF DAN RUANG LAKTASI	APBD

PENGATURAN SHARING DANA BLM

Sharing Pendanaan vs Sharing Program



PAMSIMAS 2

TERIMA KASIH

Local Public Health Services in Myanmar

Sid Naing

Myanmar

APPF 2015

Myanmar

- At the junction of South & South-East Asias
- 2nd largest in ASEAN; > Spain + Portugal
- 51.42 million population (*2014 Census*)
- History
  - Independence from British rule in 1948
  - Democracy (& later armed conflict) for more than a decade
  - Successive regimes of central-controlled economy x 5 decades
  - International sanctions & self-imposed isolation
  - Some opening-up & reform since 2011
- Political, administrative & economic changes
- Low income → low-Middle income (*2015 World Bank*)

Health in Myanmar – 1

- British colonial system since 19th century
- Socialism and State run health services till 1988
- Socialism → Market economy:

  State-financed health care → 'Cost-Sharing'
- Less national health budget → high OOP exp: >80% till 2009 (*San San Aye, Ministry of Health*)
- Infectious diseases → NCD's; & Drug-resistance
- RMCH: improving but still with challenges
- Public sector → private sector
- Quality (expensive) services → cheap unreliable

Health in Myanmar – 2

- International assistance on specific issues (HIV, TB, Malaria, MCH, pandemics) → HSS
- Emphasis on health by new govt since 2011
- From < USD 1/capita public finance before 2010 to current level of ~ USD 14 (*2015 MoH*)
- Recruitment of more personnel: Dr, Nurse, MW ratio: 1.49/1,000 population (*2011 MoH*)
- Aim for 1 provider/village (66,000); MW vs. AMW
- Free essential drugs in public sector → increased utilization of facilities (probably too much)

Of Whom

- Ministry of Health (main public health sector)
- Ministry of Labour (Social Security Board)
- Ministry of Defense (parallel health system)
- Private sector (local private sector hospitals, poly-clinics & solo practice GPs)
- External private sector (outbound medical tourism); ?international health facilities in future
- Not-for-profit sector (international NGOs, local charities)

For Whom

- Main stream, low-hanging-fruit clientele: (urban, educated, employed, family-supported, 'middle-class')

Challenges in ……

- Rural (70%) communities; ethnic areas
- Peri-urban (many are migrating rural)
- Poor, disadvantaged, marginalized …..
- Less informed, less educated
- Conflict-affected (civil war/insurgencies)
- Disaster affected (flood, cyclone)

By Whom – 1

- Public sector health facilities
  - Teaching /Specialist/Central/3° hospitals
  - Region/State hospitals
  - District, Township level hospitals
  - Station hospitals
  - Rural Health Centres; Sub Centres
- Private Specialists; & private GPs
- Other health care providers in private practice
- Unlicensed, unqualified providers (‘Quacks’)
- Drug shops (cf. Pharmacies)

By Whom – 2

- Consultant specialist ……
- Specialist ……
- General doctor ……
- Health Assistant (Male) ……
- Lady Health Visitor (Female) …
- Midwife (F) / Public Health Supervisor (M) ……
- Volunteer Health Workers ….
  - Auxiliary Midwives (F)
  - Community Health Workers (mostly M)

- Central/State/Region
- District level
- Township / Station
- Rural Health Centre
- Rural Health Centre

- Sub Centre
- Village level


JCV
Japan Committee Vaccines for the World's Children


POND'S
ASIAN UNION
Dimenhydrinate
TERCO-D
vitacee


MYBACIN LOZENGES

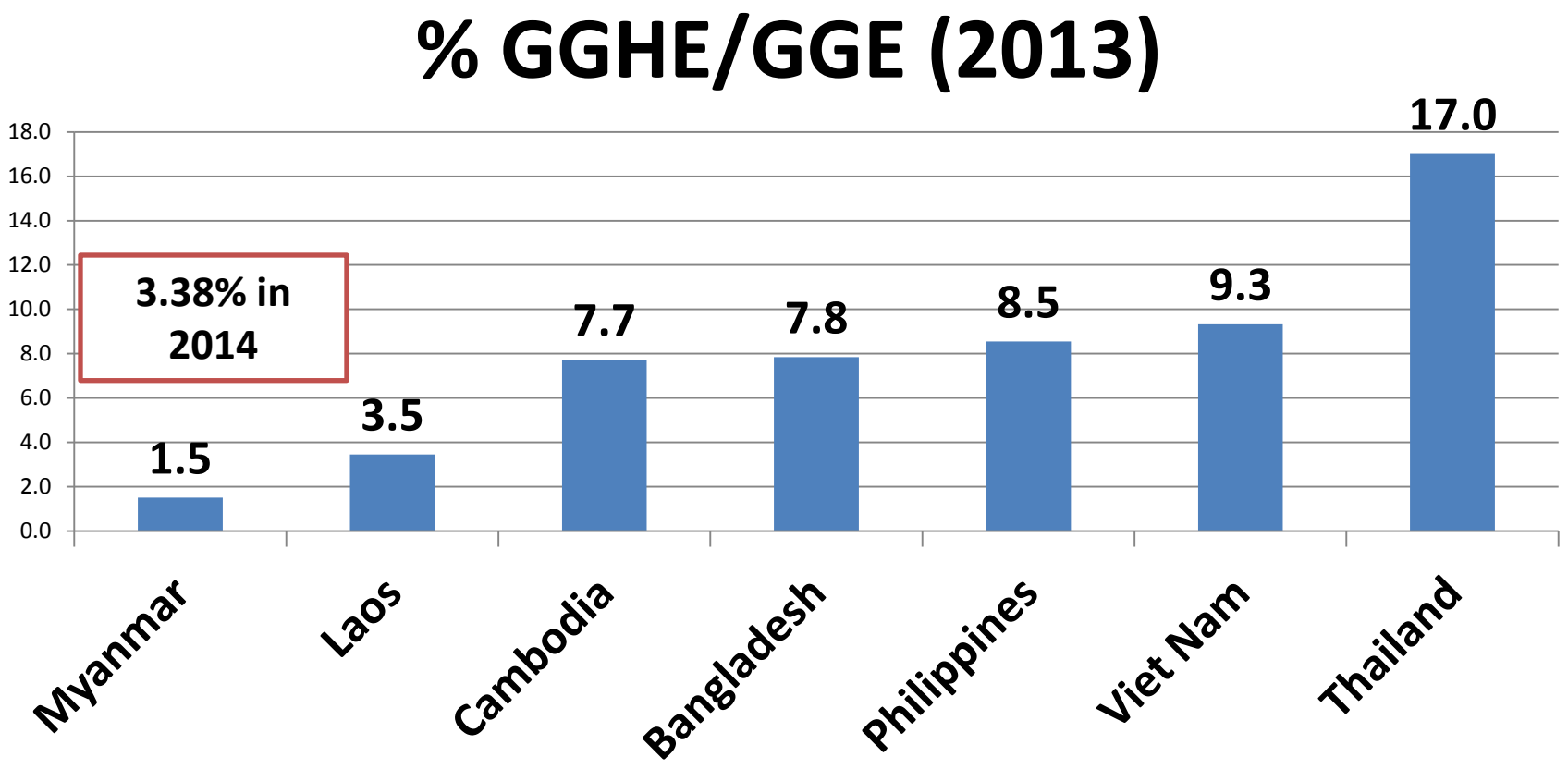
Decentralization of Services

- Deployment of specialist (including Orthopaedic & General Surgeons, Ob-Gyn, Paediatricians, Internists, Radiologists) to District level
- Making programmes available at the peripheral level (recent e.g. ART for HIV)
- Attempt to deploy one health worker per village (66,000 villages); AMW for short-term & maybe MW for future
- Some decentralization of procurement, recruitment & collaboration with international assistance

How is Health Financed

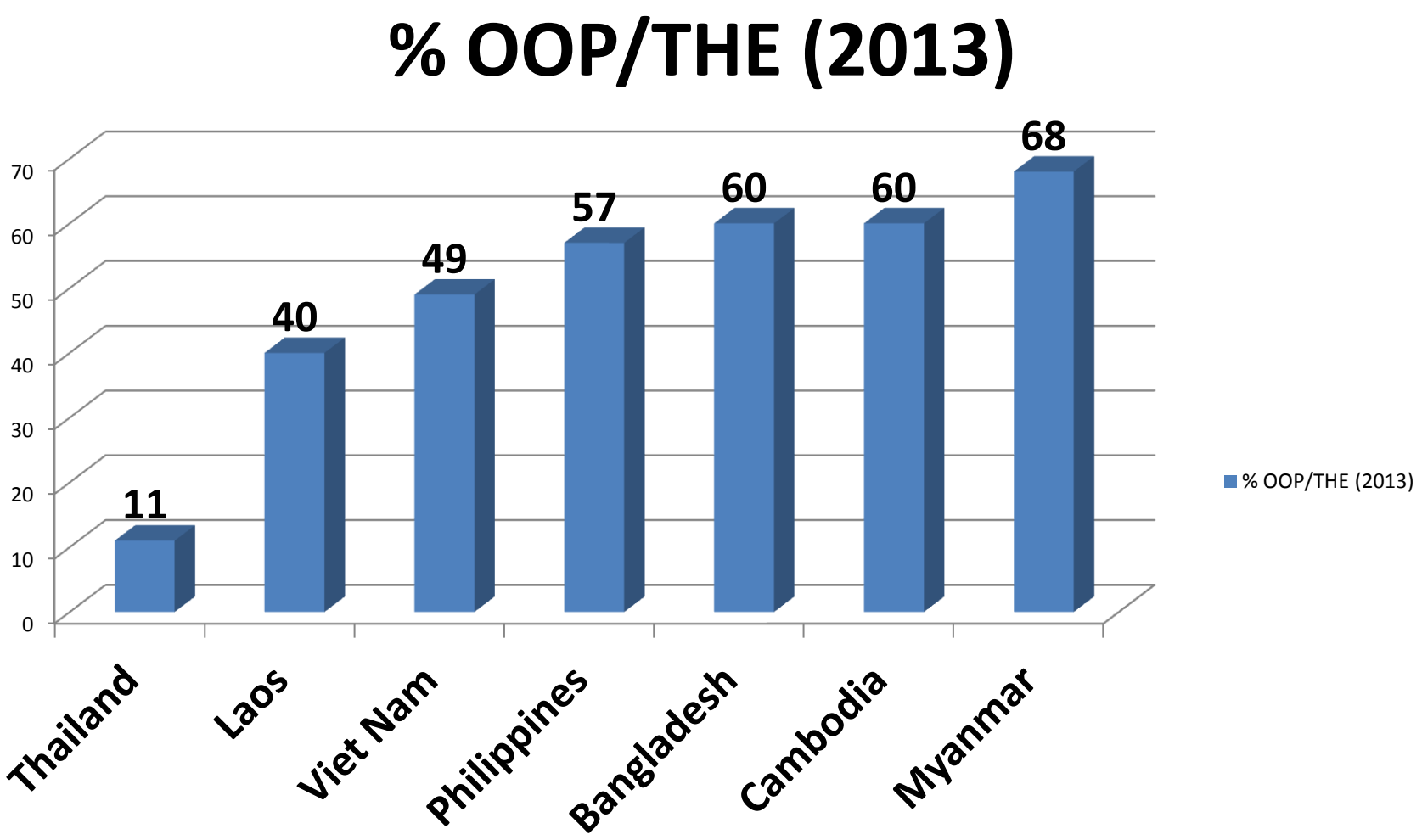
- National budget: 3.7% of GGE; aiming for higher
  - Ministry of Health (striving for FOC/OOP Zero service)
- Employees' premium & employers' contributions
  - Social Security Board of Ministry of Labour (insuring 700,000 people)
- Out-Of-Pocket expenditures: still main source; used to be > 80% but now assumed to be ~ 60% (because of ↑ed government health budget)
- Recently launched Private Health Insurance
  - Only ~500 end July 2015 (*Ministry of Finance*)

State's Priority on Health



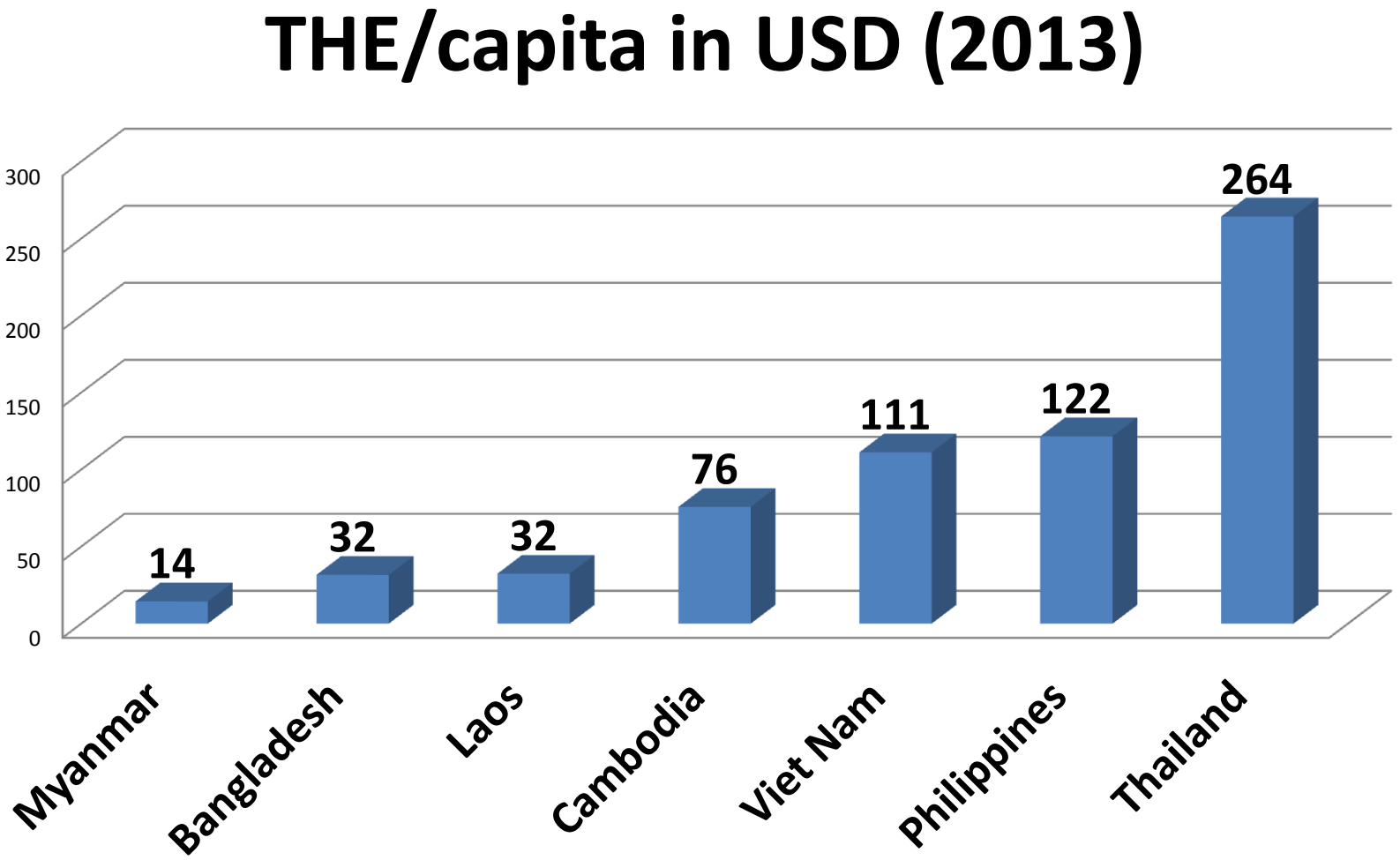
Source: WHO Global Health Expenditure Database; and Health in Myanmar Report 2014

OOP Percentage



Source: WHO Global Health Expenditure Database

How Much per Person is Spent



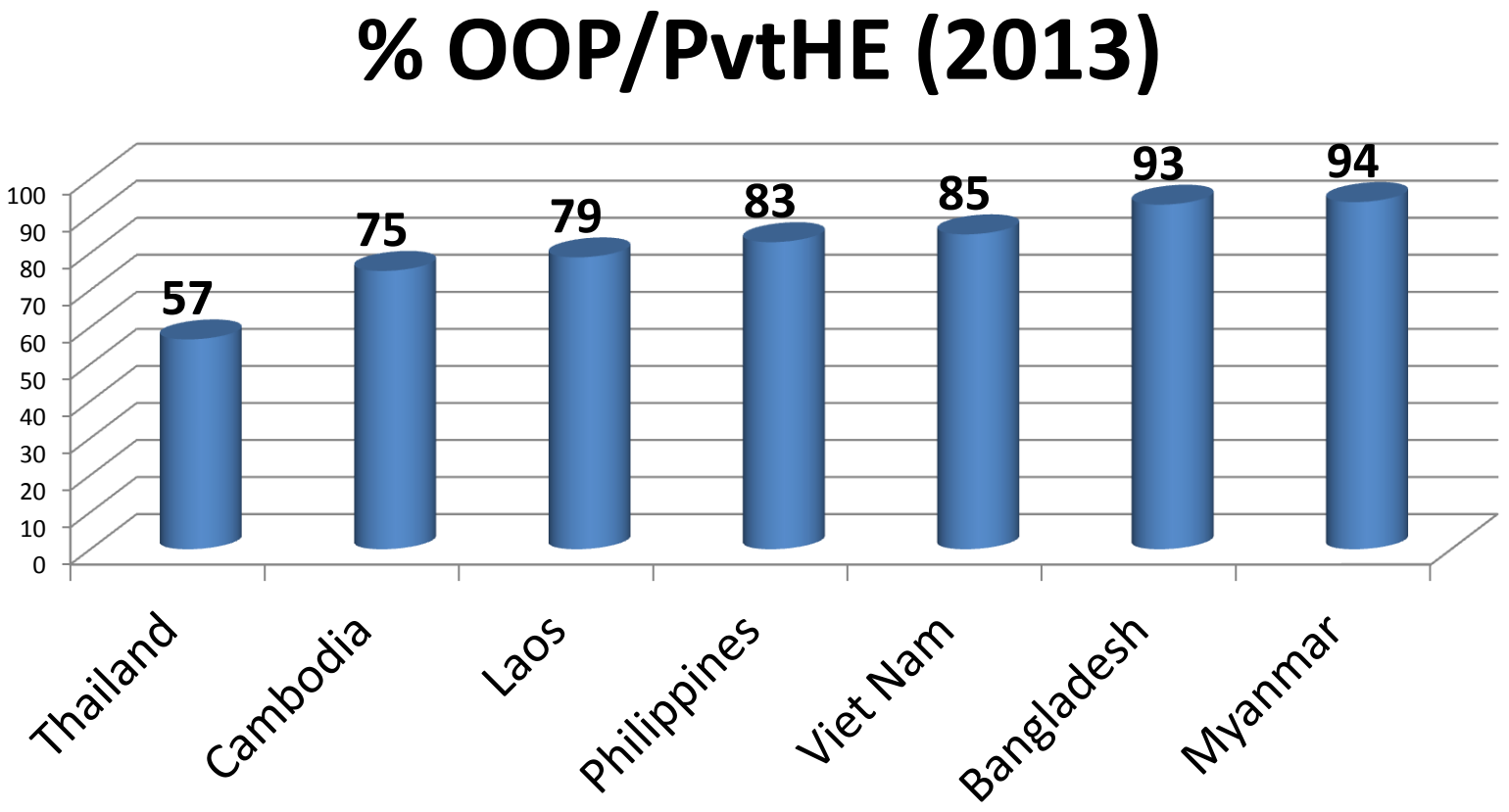
Source: WHO Global Health Expenditure Database

Benchmarks

Indicators	Current	Benchmark
THE / capita (US$)	14	86
THE/GDP (%)	1.8%	5%
OOPE/ THE (%)	68%	<15-30%
GGHE/ GGE (%)	2%	15%
Tax revenue /GDP (%)	<10%	15-26%

Source: WHO Global Health Expenditure Database; and IMF presentation – Jan Gottschalk (2014) https://www.imf.org/external/region/tlm/rr/pdf/m3.pdf Myanmar 2012/13 data

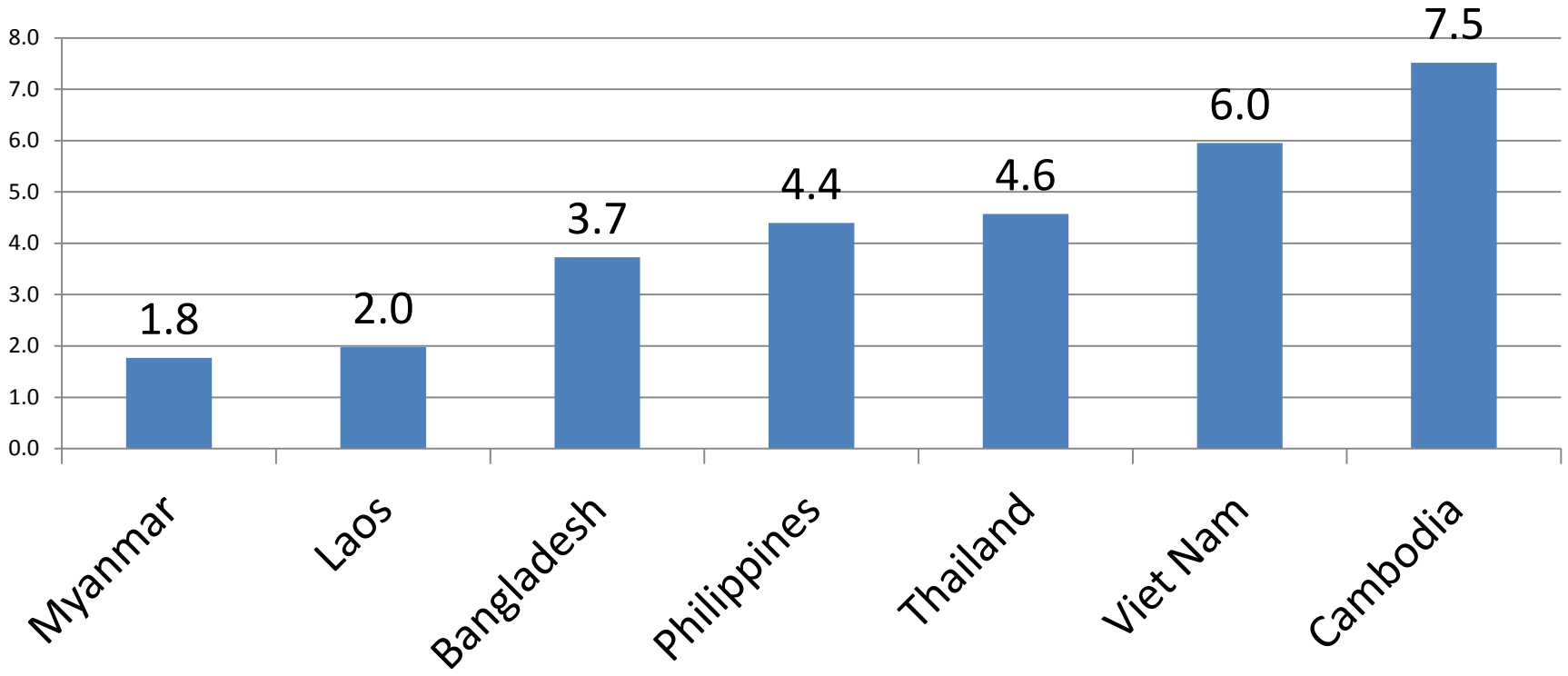
High Proportion of OOP within PvHE



Source: WHO Global Health Expenditure Database

Health & GDP

% THE/GDP (2013)



Source: WHO Global Health Expenditure Database

How Are Services Paid

- Salaries in Public Sector
- FFS, FFS & FFS
  - In private sector;
  - In rural areas;
  - services by quack providers
- Capitation, Performance-based payments, etc. are under consideration
- Public sector and charity sector inspired by the expression FOC (Free-of-Charge) services

Challenges

- Equity (needs finances, HR, efforts, courage)
- Remote, hard-to-reach areas (mountains, delta); Conflicted affected areas (relief, convergence)
- Recruiting & retaining qualified personnel
- Language barrier; cultural constraints
- Low level of preparedness
- Idealism & over-medicalization vs. pragmatism
- Lower priority of health (cf. security & economy) in country
- Lower priority of health by developm't partners

Way Forward

- “UHC” by 2030
- Deploying & capacity building of public health service delivery points (HR, SCM, task-shifting)
- Promoting investment in health (GDP, ‘Sin’ Tax, Developmt Partners, other sources)
- Outsourcing/contracting private providers, charities, & ethnic health organizations
- Establishing national (central) risk pooling mechanism

Terima kasih.

Thank you.

ကျေးဇူးတင်ပါတယ်။

[*J-zoo-timber-del*]

Maternal Nutrition and Child Cognition in Indonesia

Anuraj Shankar

Harvard T.H. Chan School of Public Health

Asia Public Policy Forum

August 12, 2015

What is proper maternal nutrition?

Macronutrient status•

- Height >145cm•
- Weight (appropriate for height)•
- Middle upper arm circumference >23.5 cm•
- Body mass index (kg/m2) >18.5•
- Adequate weight gain in pregnancy•

Micronutrient status•

- Hemoglobin > 1 g/dL (non-anemic)•
- Micronutrient deficiencies absent•

Consequences of poor maternal nutrition

Maternal consequences•

Increase risk of mortality•

More frequent and severe infections•

More birth complications•

Greater risk of miscarriage or stillbirth•

Increased malaise and fatigue•

Child consequences •

Low birth weight child•

High infant mortality•

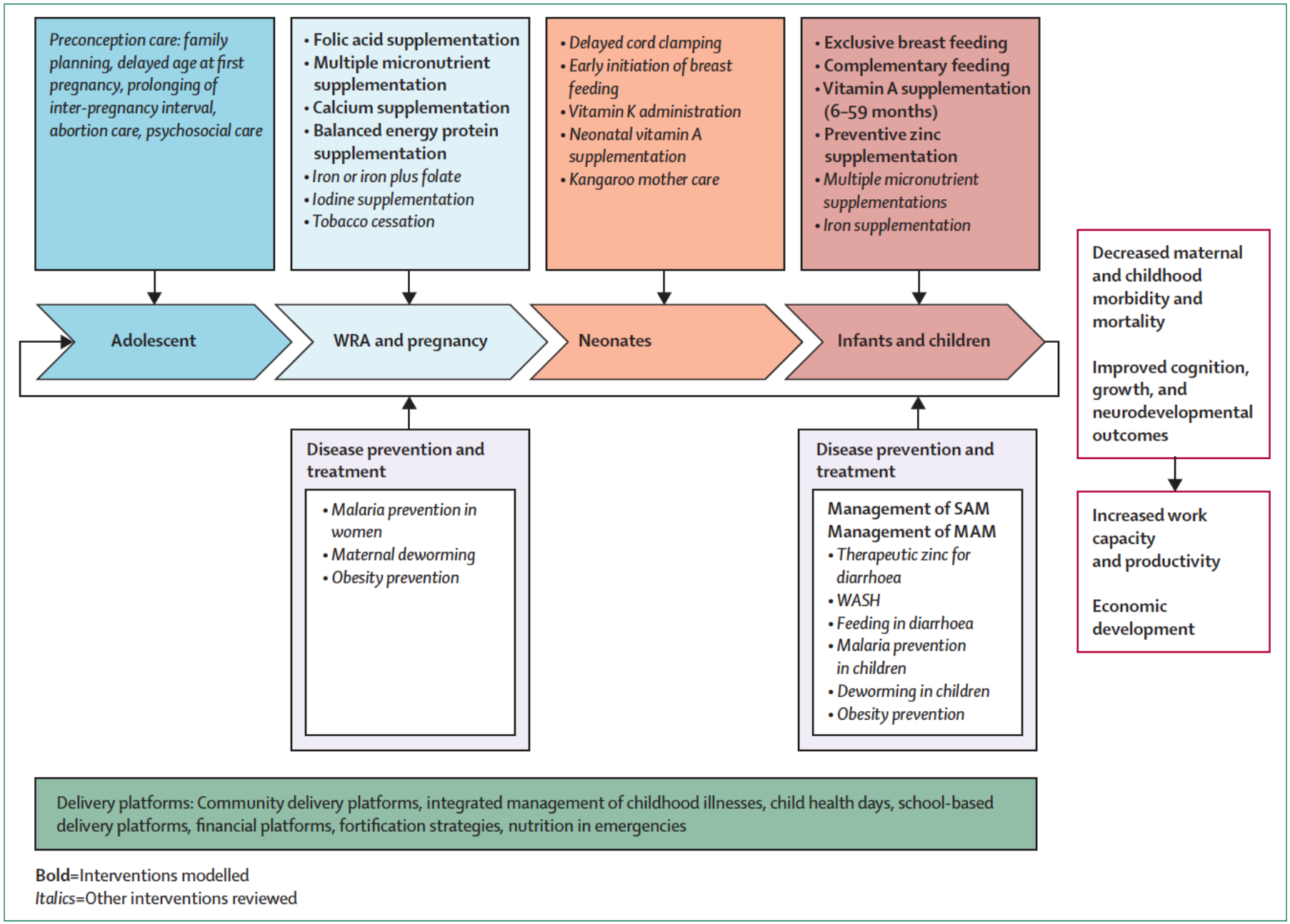
Poor breast milk quality for child•

Developmental and cognitive compromise•

Increased risk of non-communicable diseases •

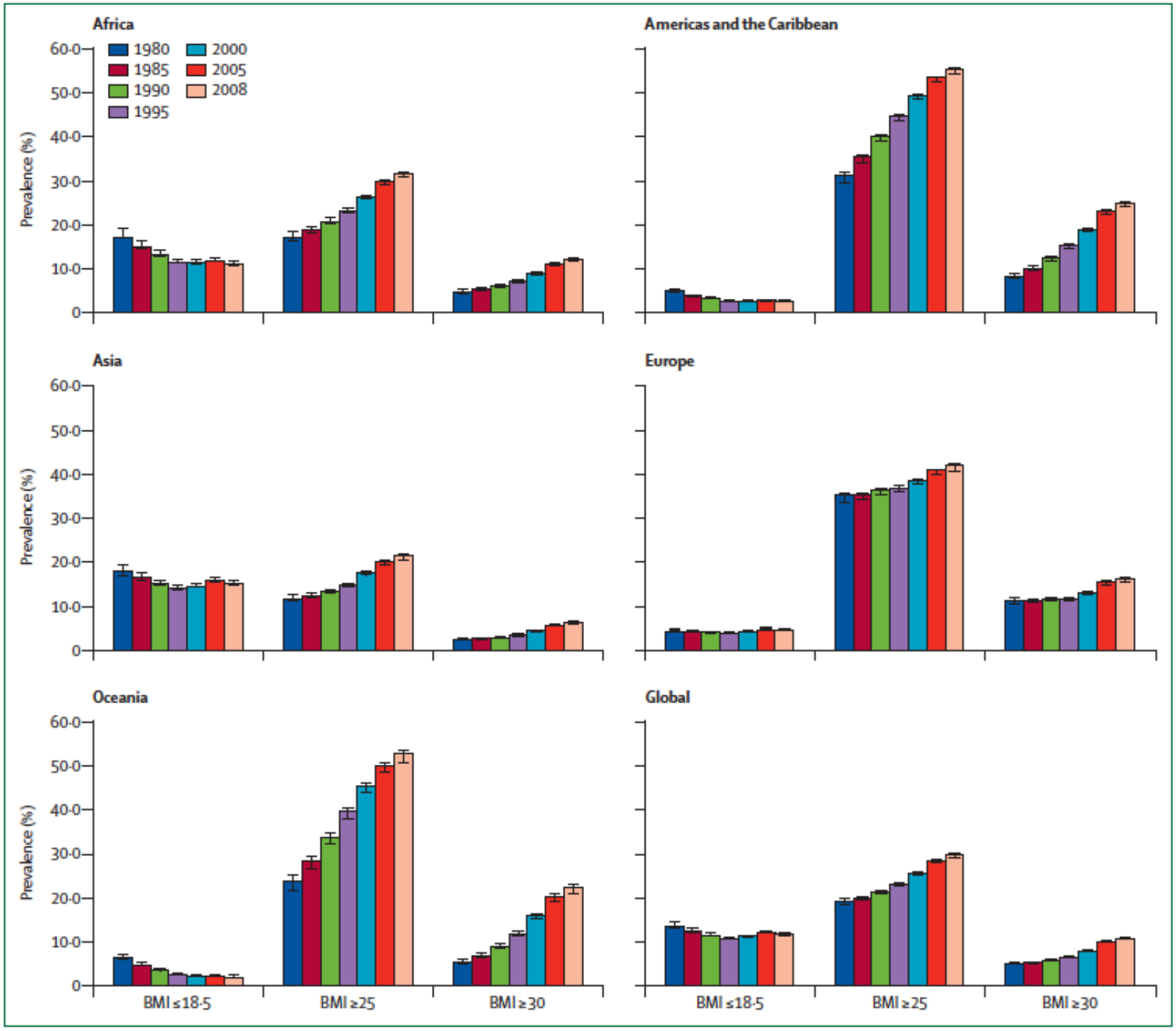
diseases in children

Conceptual Framework for Nutrition Interventions

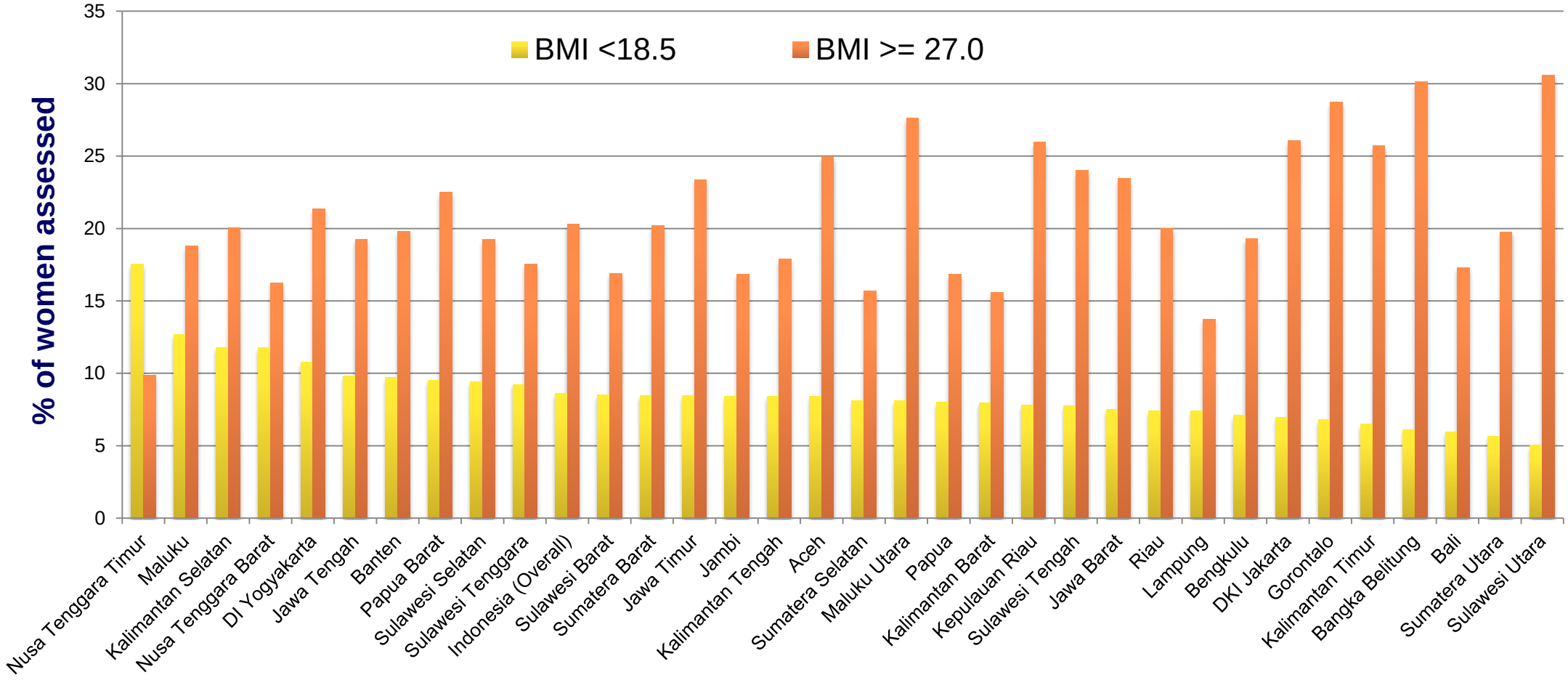


Bhutta ZA et al., Lancet 2013, 382:452

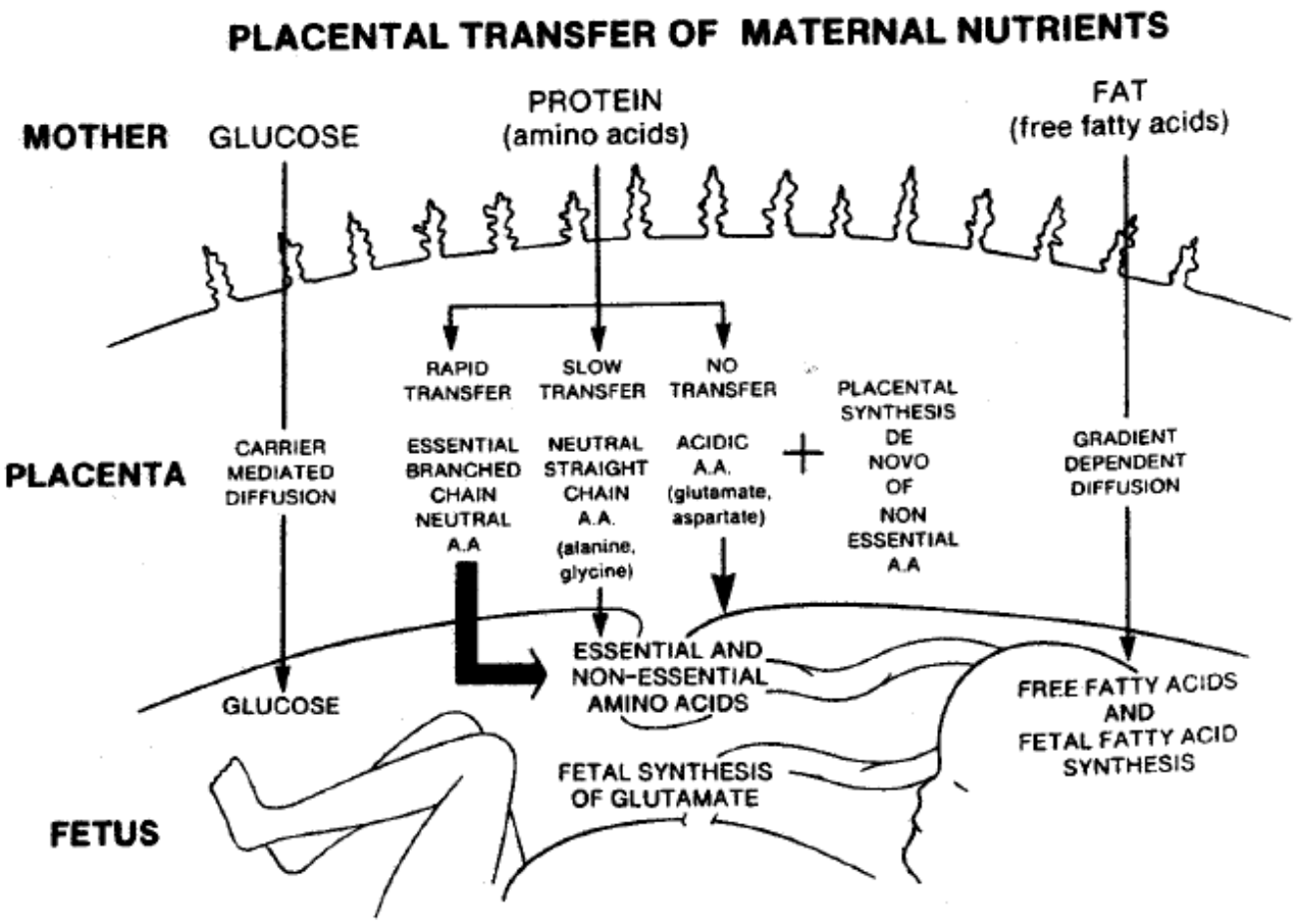
Global BMI trend for thinness and obesity in women



BMI of women in Indonesia: proportion underweight and obese by Province (Riskesdas 2012)



Materno-fetal nutrition interface



What is low birth weight and small for gestational age (SGA)?

- Birthweight is the weight of the fetus or newborn obtained after birth. For live births, birthweight should preferably be measured within the first hour of life, before significant postnatal weight loss has occurred.
- Low birthweight is defined as less than 2,500 g
- Low birthweight is either the result of:
  - preterm birth (before 37 weeks of gestation)
  - restricted fetal (intrauterine) growth
- SGA is the percentile weight adjusted for gestational age

Factors affecting birth weight and SGA

- For the same gestational age, girls weigh less than boys, first born infants are lighter than subsequent infants.
- Women of short stature, at high altitudes, and young women have smaller babies.
- Mother's own fetal growth and her diet from birth to pregnancy, and thus, her body composition at conception.
- Once pregnant, the mother's diet, lifestyle and other exposures (e.g., malaria, HIV or syphilis), or complications such as hypertension can affect fetal growth and development, as well as the duration of pregnancy
- Mothers in deprived socio-economic conditions frequently have low birthweight infants:
  - mother's chronic poor nutrition and health
  - High prevalence of infections
  - Physically demanding work during pregnancy.

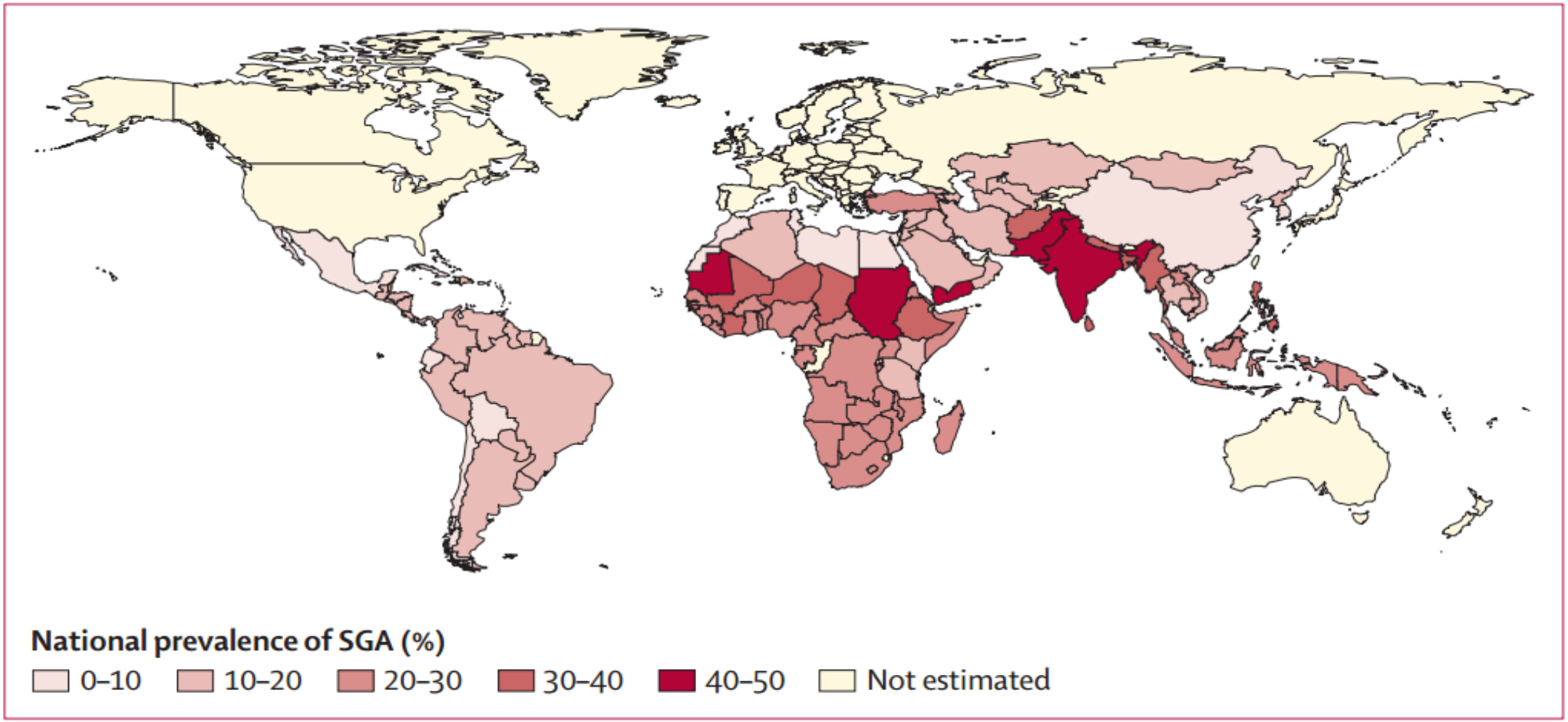


Figure 2: **Estimated prevalence of SGA births in 138 low-income and middle-income countries**
SGA=small for gestational age.

Lee et al. National and regional estimates of term and preterm babies born small for gestational age in 138 low-income and middle-income countries in 2010. Lancet Global Health. 2013 Jul; 1: e26-36.

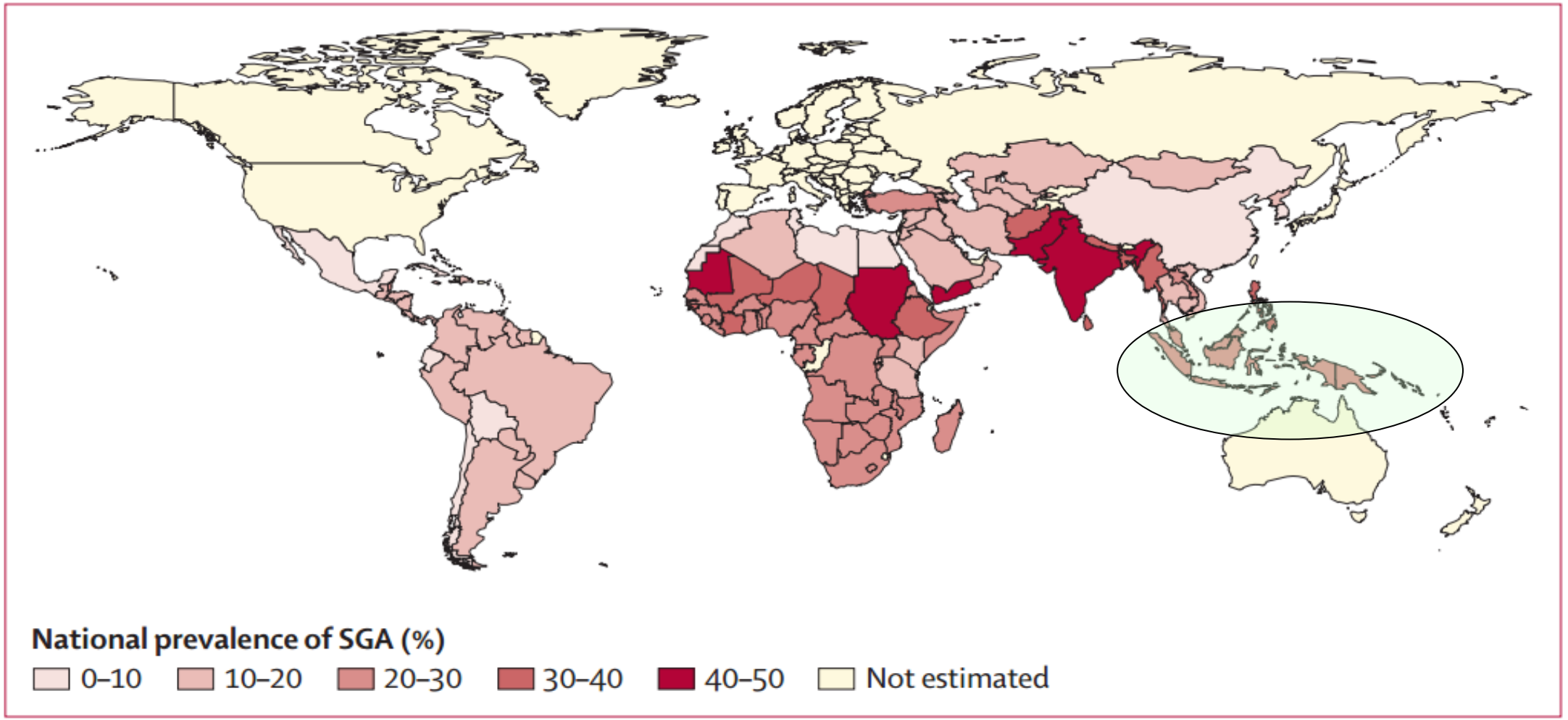
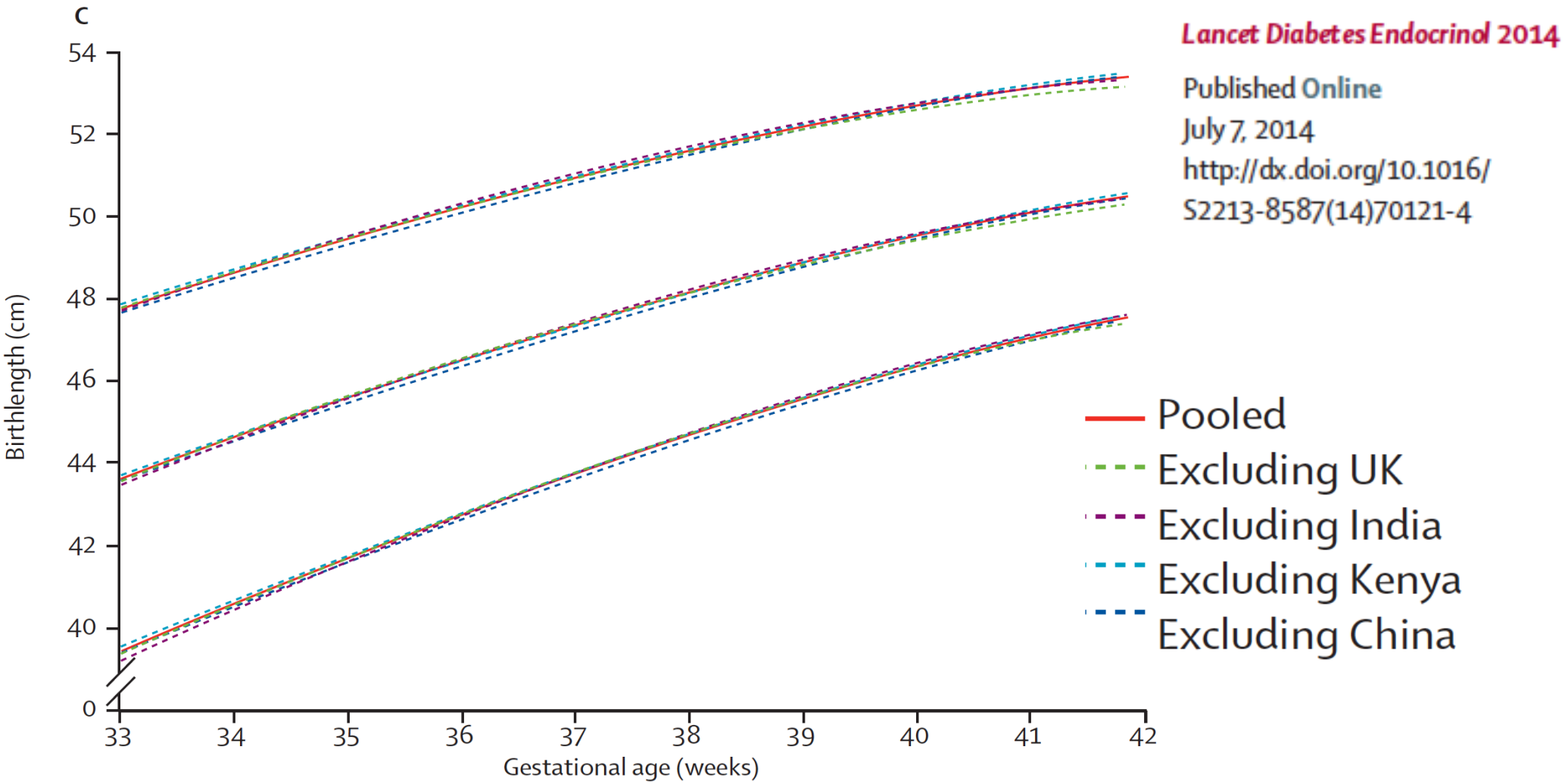


Figure 2: **Estimated prevalence of SGA births in 138 low-income and middle-income countries**
SGA=small for gestational age.

Lee et al. National and regional estimates of term and preterm babies born small for gestational age in 138 low-income and middle-income countries in 2010. Lancet Global Health. 2013 Jul; 1: e26-36.

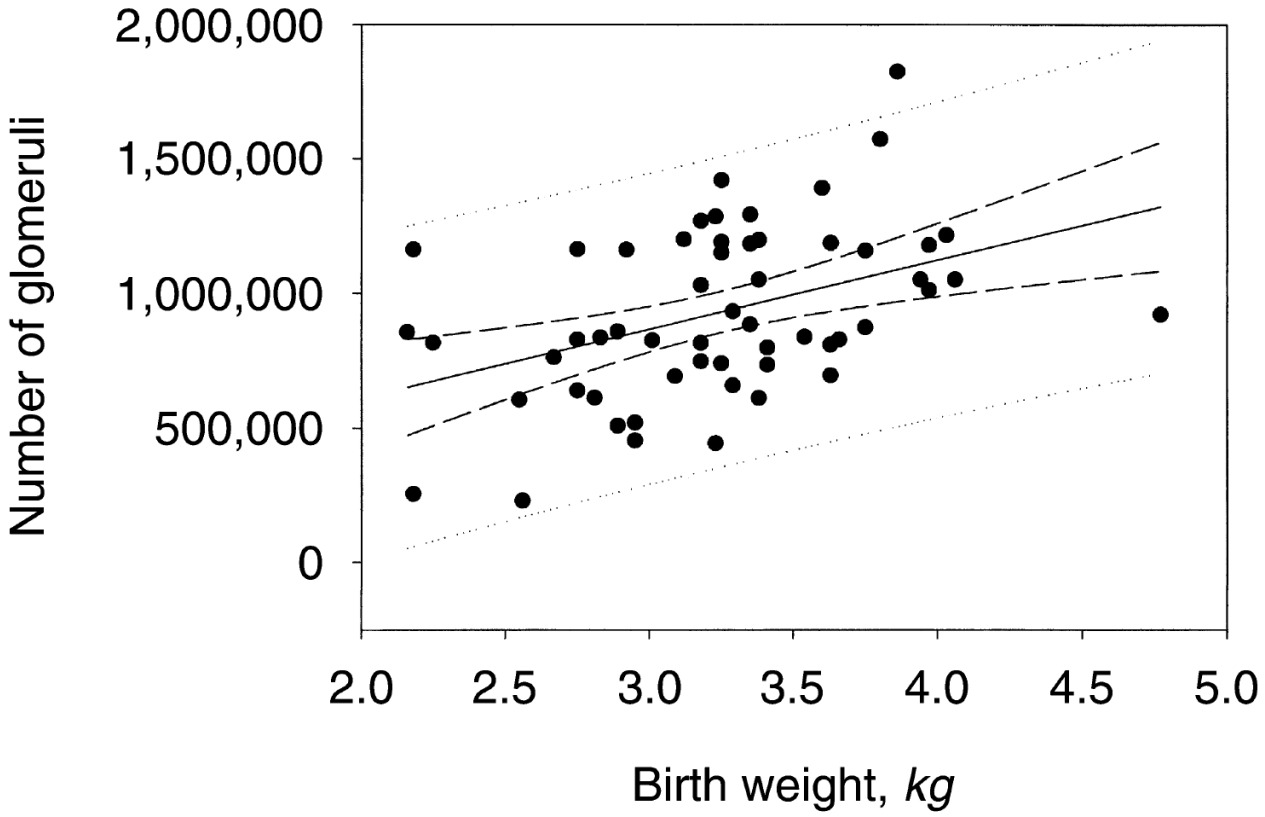
Fetal growth potential is similar across ethnicities: InterGrowth Study on newborn length



Lancet Diabetes Endocrinol 2014

Published Online
July 7, 2014
http://dx.doi.org/10.1016/
S2213-8587(14)70121-4

Low birth weight and kidney development



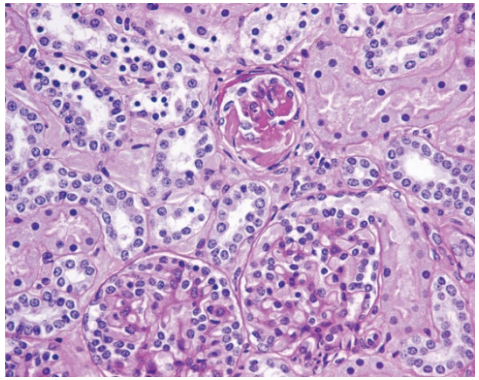


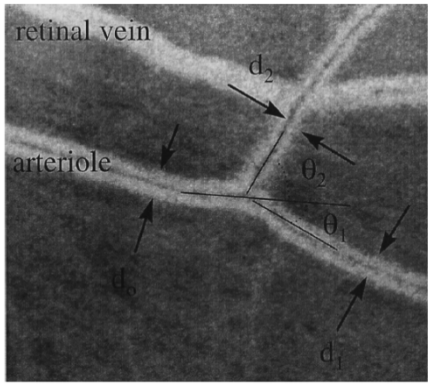
Fig. 4. The relationship between birth weight and total glomerular number among all cases that includes infants, children, and adults.

Hughson M et al. 2003 Kidney Int 63: 2113–2122

Microvascular architecture is affected in low birth weight infants

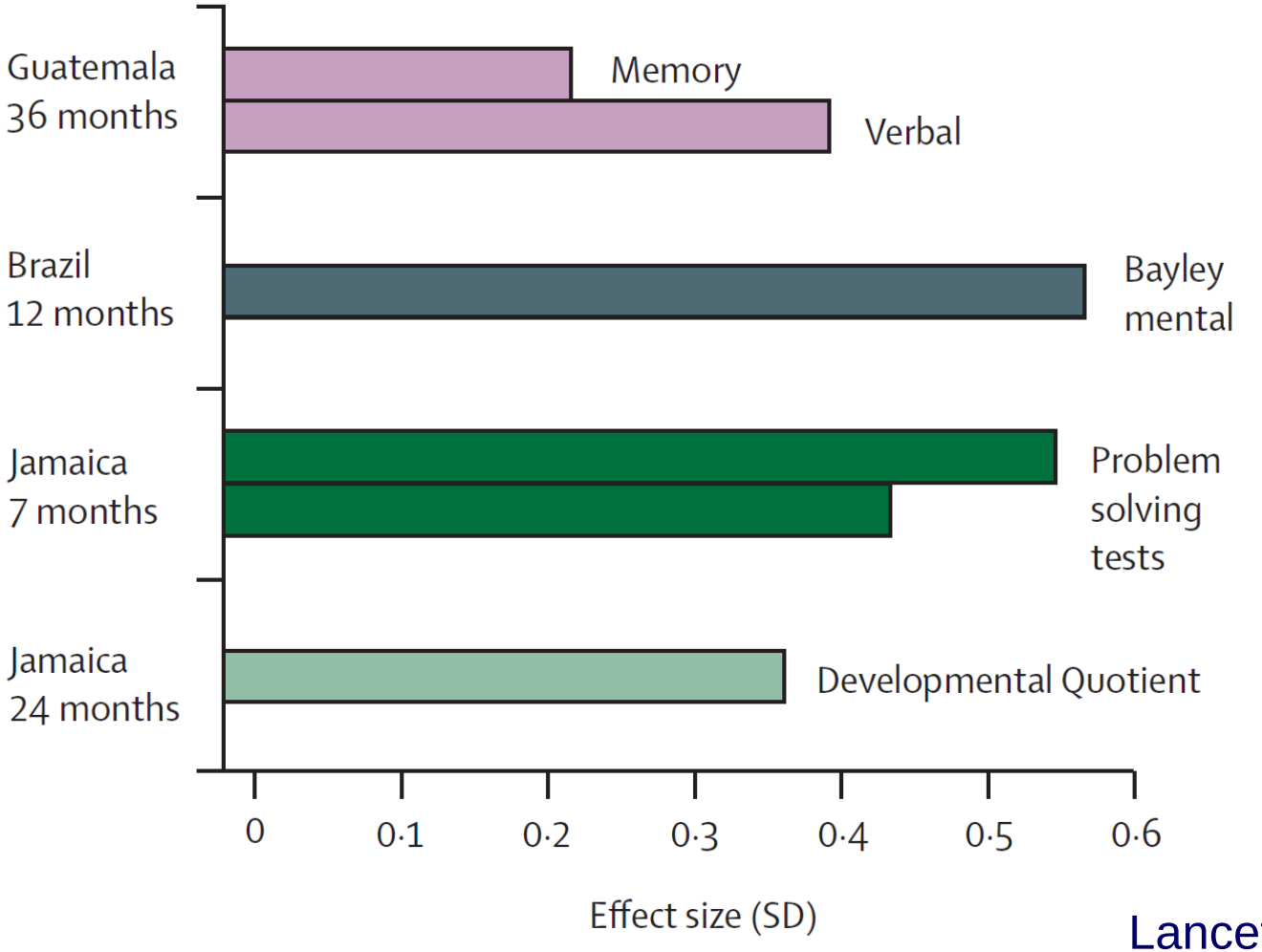
Table 3 Microvascular architecture in the eye, and capillary density in skin and muscle in relation to birth weight

Organ/tissue	Age group	Gestational age	Sample size, n	Association between LBW and reduced microvasculature	Country
Eye	Children	Preterm	78	**Yes**	Sweden
Eye	Adults, 18 years	Term	44	**Yes**	Sweden
Eye	Adults, 23–30 years	Preterm	47	**Yes**	Sweden
Eye	Adults, 64–74 years	Term	100	**Yes**	UK
Skin	Infants	Term	38	**No**	UK
Skin	Children	Term	21	**Yes**	The Netherlands
Skin	Children	Preterm	60	**Yes**	Sweden
Skin	Children	Term	107	**No**	UK



Norman M *Acta Pædiatrica* 2008 **97**, pp. 1165–1172

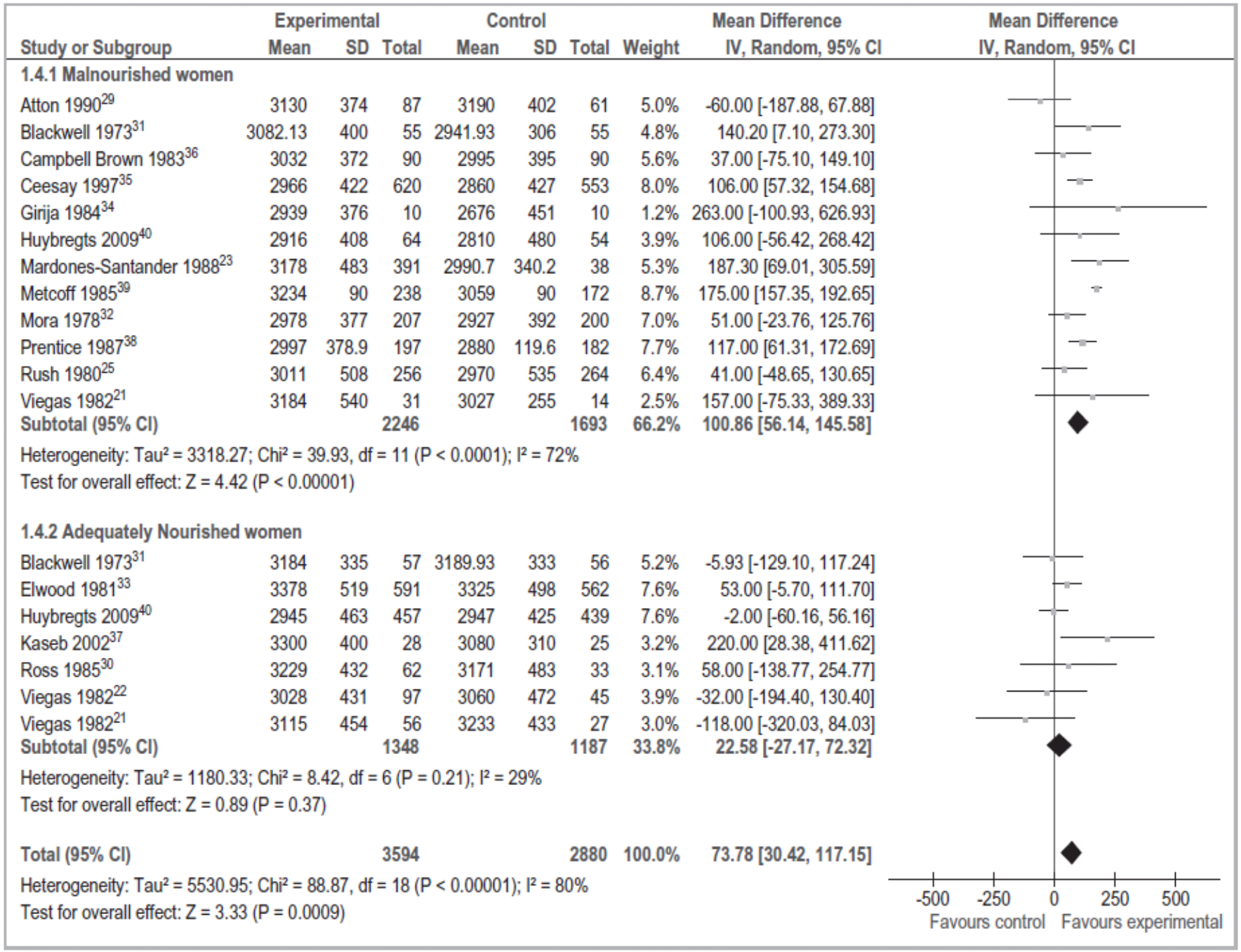
Effect of intrauterine growth restriction on child development



Lancet 2007; 369:145

Effect of balanced protein-energy supplementation on birth weight

Imdad A et al 2012 Ped Perinatal Epi, 26 (Supp 1): 178-190



Summary and conclusions

- Maternal protein-energy malnutrition and birth weight & SGA are substantial global and Indonesian health issues
- Interventions are effective and have long term effects on multiple health and productivity outcomes throughout life
- We lack operational programs at scale
- Challenge: how to create effective programs at scale to address poor maternal protein calorie malnutrition

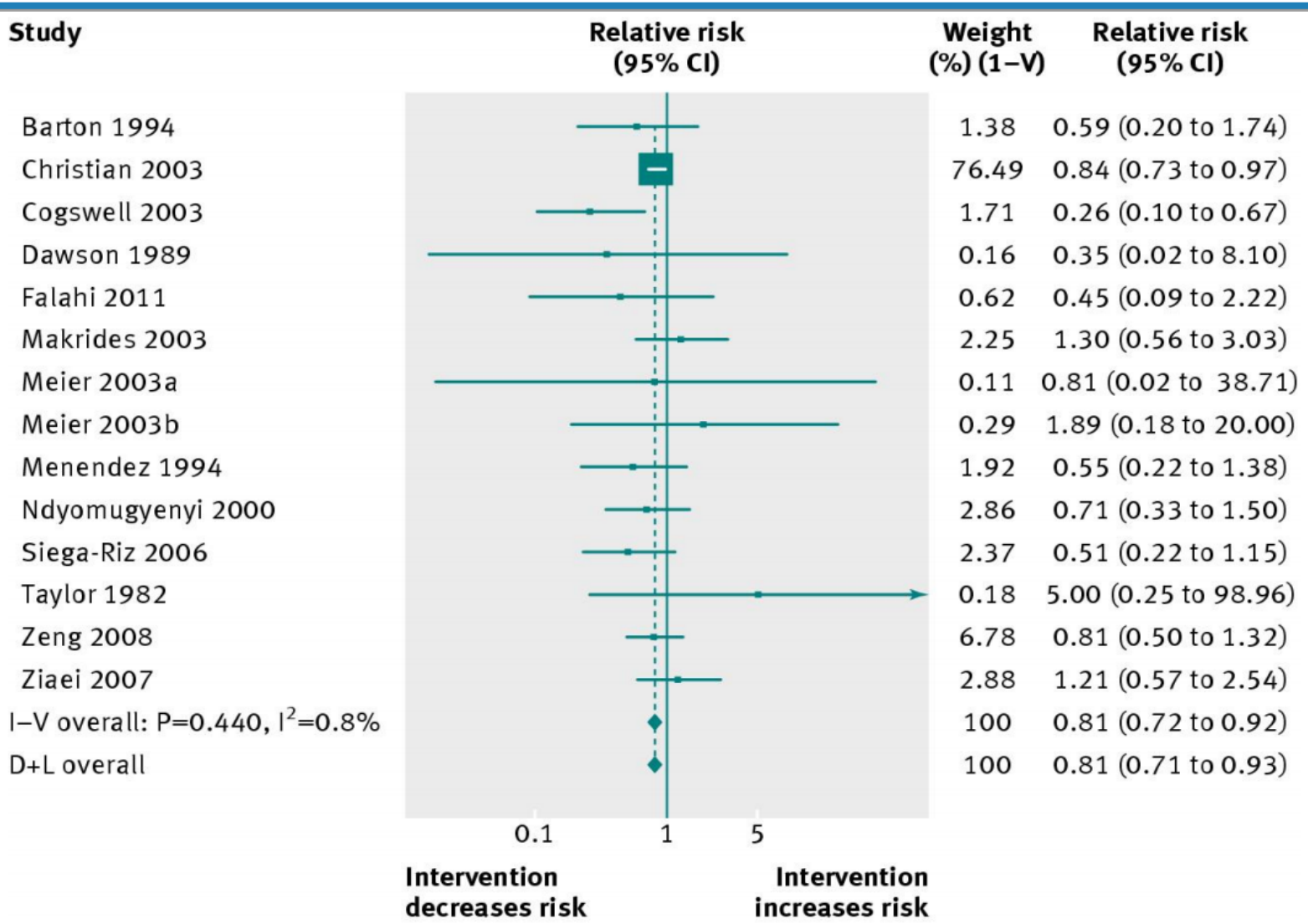
Maternal Anemia

- WHO definition of severe anemia: Hemoglobin < 7 g/dL
- The global prevalence of anemia is estimated to be 30.2% in non-pregnant women rising to 47.4% during pregnancy
- Severe anemia associated with:
  - Low birth weight newborns
  - Premature newborns
  - Perinatal mortality
  - Increased maternal mortality and morbidity
- Iron and folic acid supplementation is global and also national policy in Indonesia

Anemia rates remain high in Indonesia

Age	Male	Female	Urban	Rural
12 - 59 Months	29,7	26,5	30,3	25,8
5 - 12 Years	29,4	29,4	27,5	31,0
13 – 18 Years	12,4	22,7	17,3	18,5
≥15 Years	16,6	-	14,5	18,5
15 – 49 Years	-	22,7	22,4	23,0
Pregnant women	-	37,1	36,4	37,8

Impact of maternal iron supplementation on risk of low birth weight



Haider et al. BMJ. 2013 346:f3443.

What about multiple micronutrients?

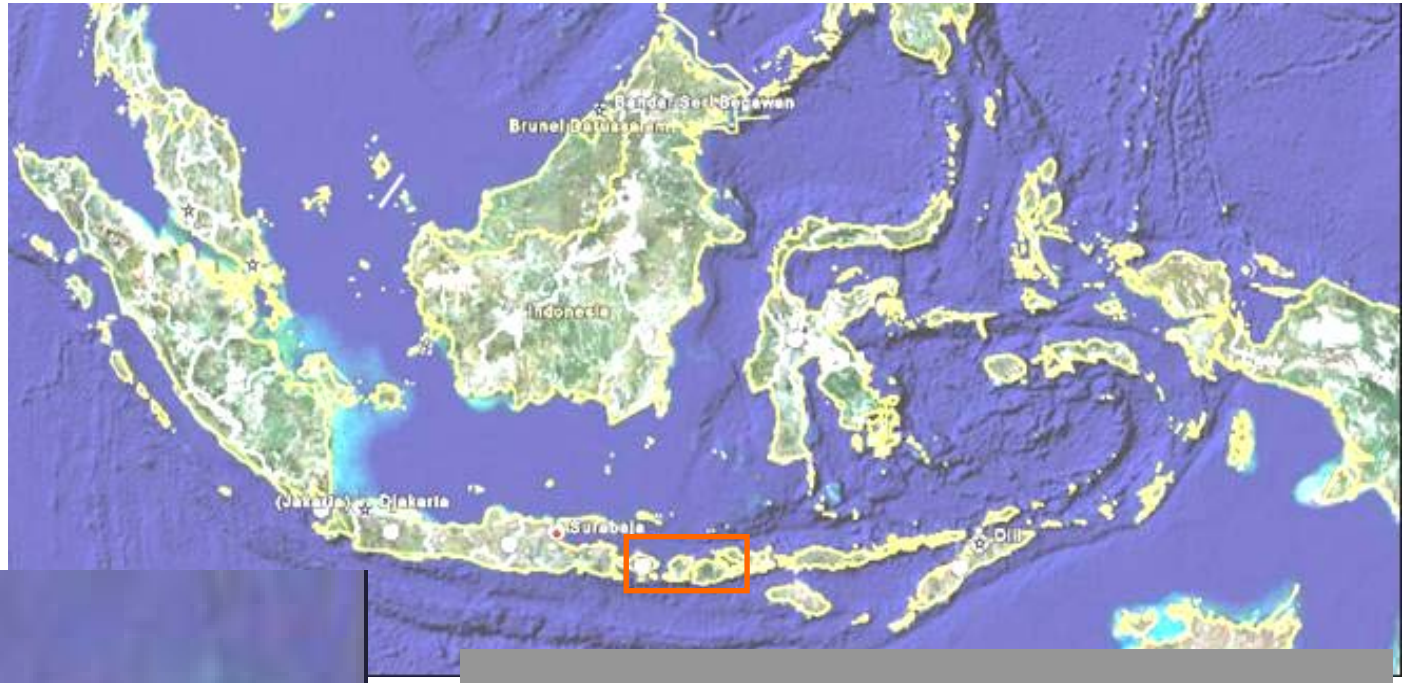
Supplementation with Multiple Micronutrients Intervention Trial (SUMMIT)

Goal: Compare the effects of maternal multiple micronutrients (MMN) supplementation to the existing practice of iron/folic acid (IFA) supplementation on maternal and infant health in the context of existing health care services.

Enrollment and follow-up for birth outcomes: ~32,000 women.

Location: Lombok, Indonesia with enrollment coverage of 80% of 2.7 million persons.

Time period: 2001 – 2004.



Lombok Island

West Nusa Tenggara Province
Indonesia
2001-2004
(2.7 million people, 2000 pop census)

SUMMIT design and implementation

- Cluster randomization: 262 village midwife service area.
- Treatment: iron/folic acid (IFA) and multiple micronutrients (MMN).
- Regimen: daily dose during pregnancy up to 3 month post partum.
- Pregnant women self-report to midwives to enroll and receive supplements.
- Supplements given every 30 days.
- Social marketing and promotion to support recruitment and compliance.

- **Multiple Micronutrients (MMN)**

– Vitamin A	800 mcg
– Vitamin D	200 IU
– Vitamin E	10 mg
– Vitamin C	70 mg
– Vitamin B1	1.4 mg
– Vitamin B2	1.4 mg
– Niacin	18 mg
– Vitamin B6	1.9 mg
– Vitamin B12	2.6 mcg
– Folic Acid	400 mcg
– Iron	30 mg
– Zinc	15 mg
– Copper	2 mg
– Selenium	65 mcg
– Iodine	150 mcg

One RDA

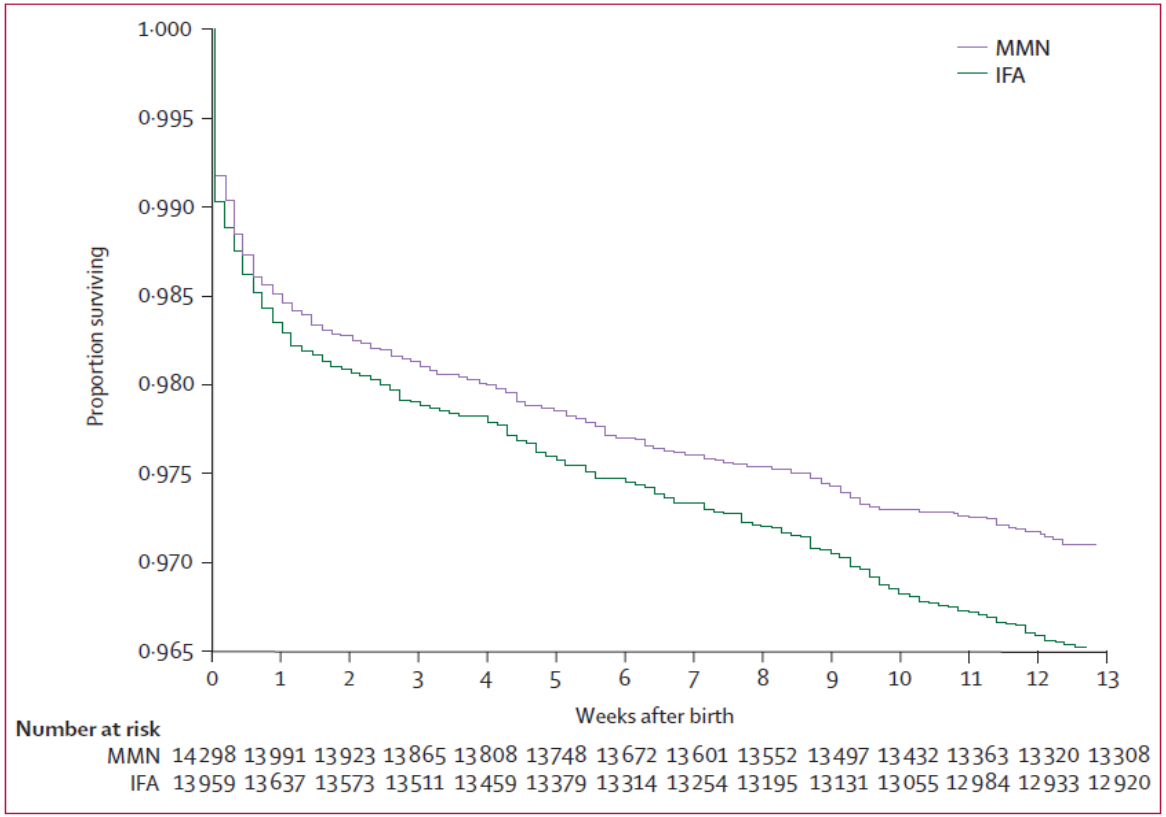
MMN & IFA have same dose of iron

- **Iron – Folic Acid (IFA)**
  - Iron 30 mg
  - Folic Acid 400 mcg

Effect of maternal multiple micronutrient supplementation on fetal loss and infant death in Indonesia: a double-blind cluster-randomised trial

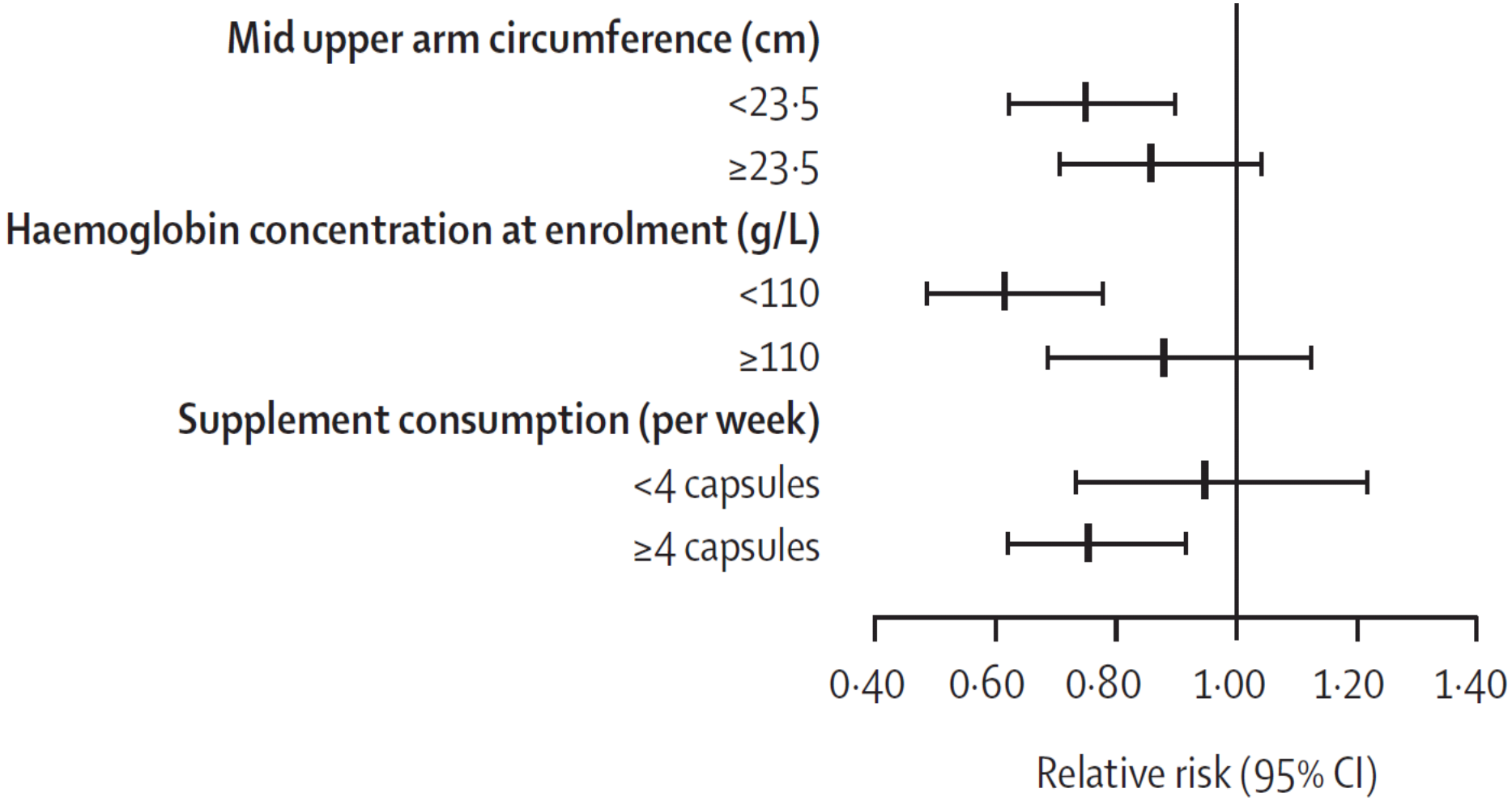
*The Supplementation with Multiple Micronutrients Intervention Trial (SUMMIT) Study Group**

***Lancet* 2008; 371: 215–27**

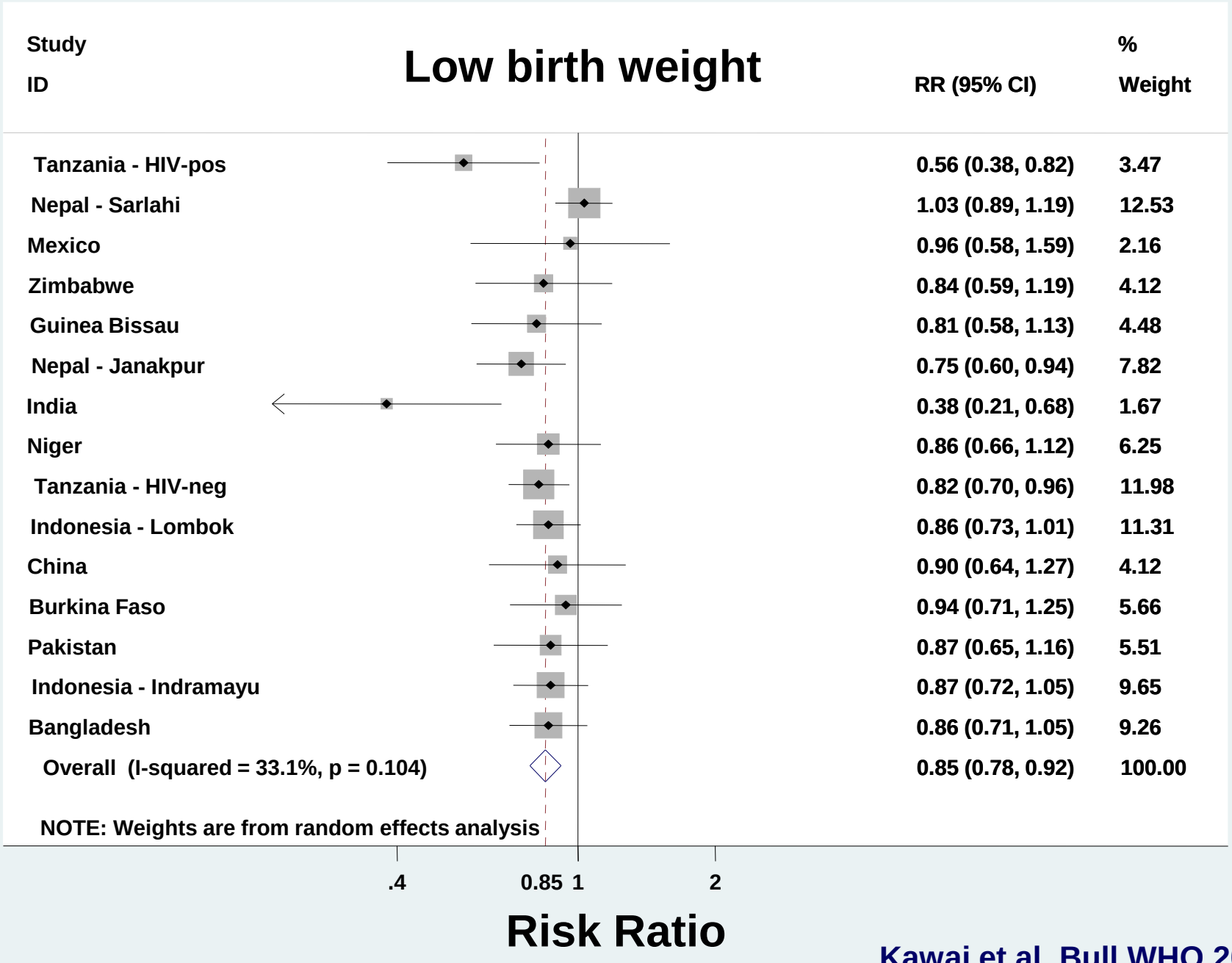


- **18% reduction of infant mortality at 3-months after birth, with 38% reduction in children of women who were anemic during pregnancy**
- **Reduced low birth weight by 18% in well nourished women**
- **Improved cognitive performance at 42-months of age in children of anemic and undernourished mothers. (Prado EL et al 2012)**

Subgroup analysis on mortality risk

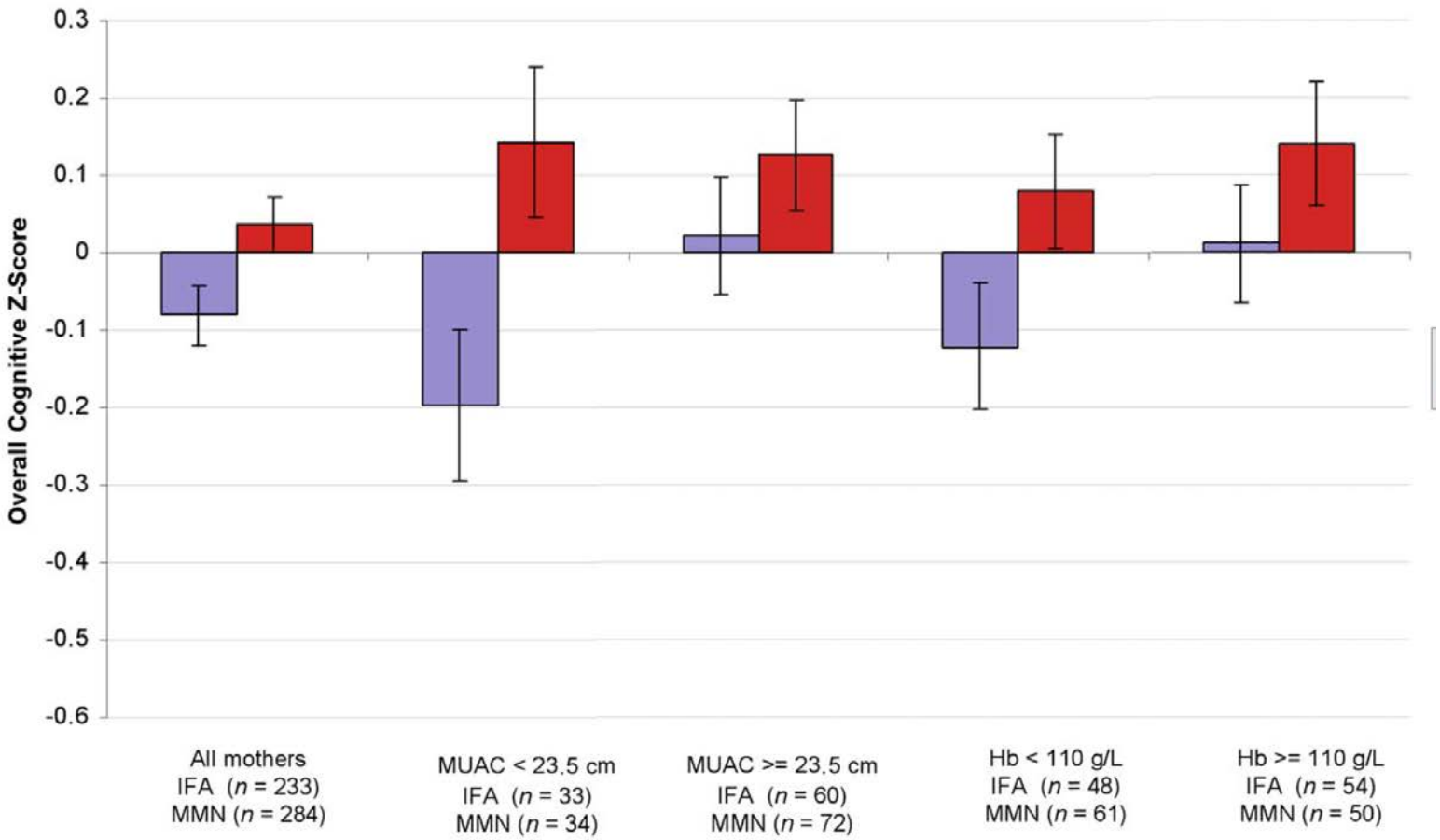


Meta-analysis of impact of MMN on low birth weight



Kawai et al, Bull WHO 2012

Mean cognitive z-scores for women receiving MMN or IFA



Do maternal micronutrients affect brain development?

- The neural tube begins to form 16 days after conception
- Within 7 months, the brain ressembles the brain of an adult, with 6 layers of cortex
- Brain development continues rapidly during the rest of pregnancy and infancy

Estimated percent of children under-5 not fulfilling their developmental potential in cognitive, motor, and socio-emotional abilities

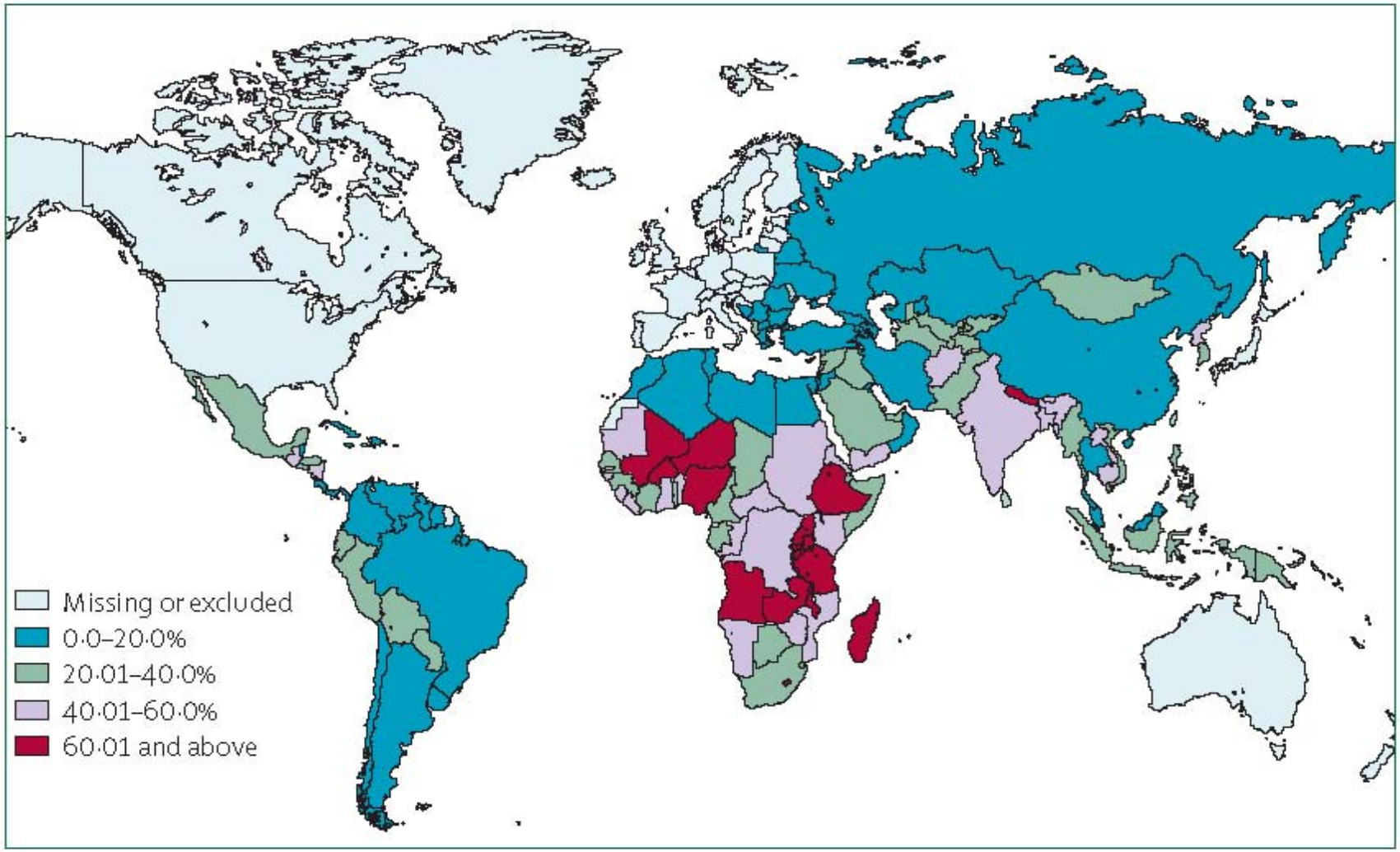
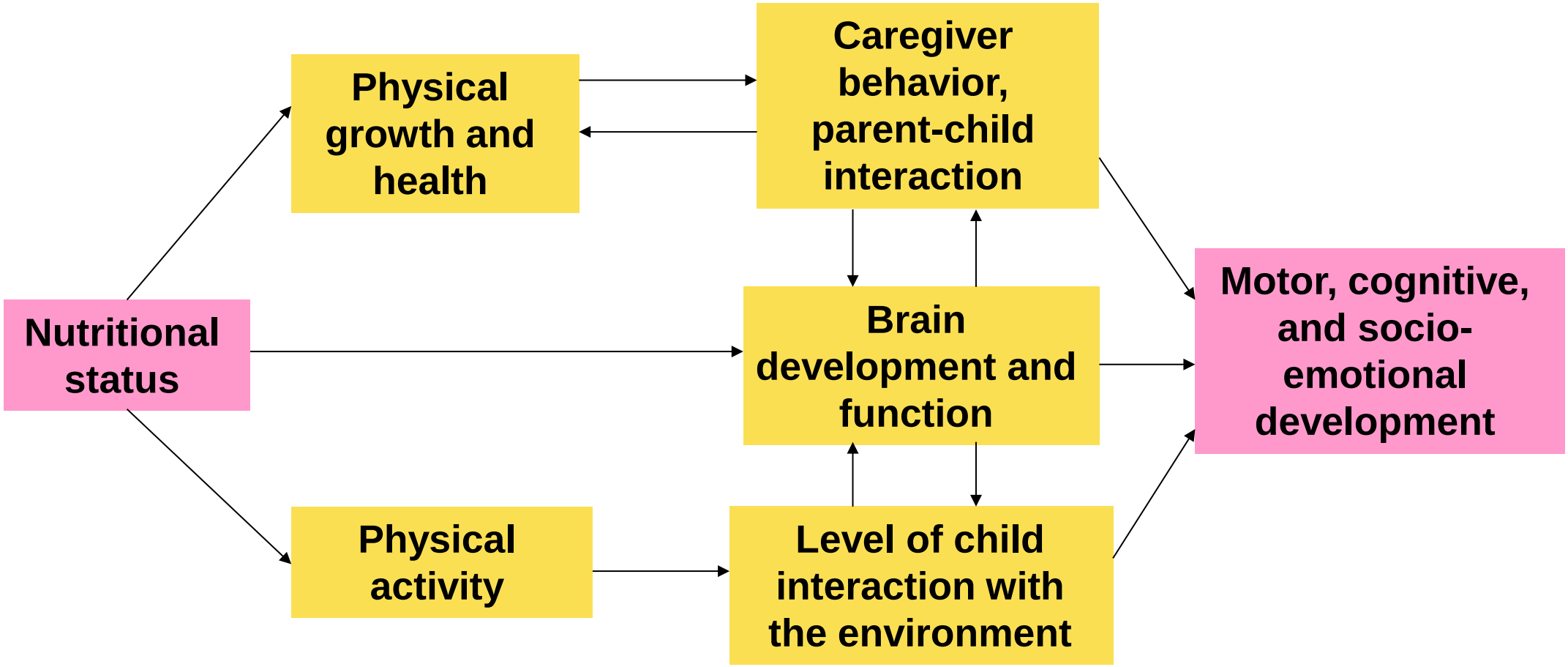


Figure 5: Percentage of disadvantaged children under 5 years by country in year 2004

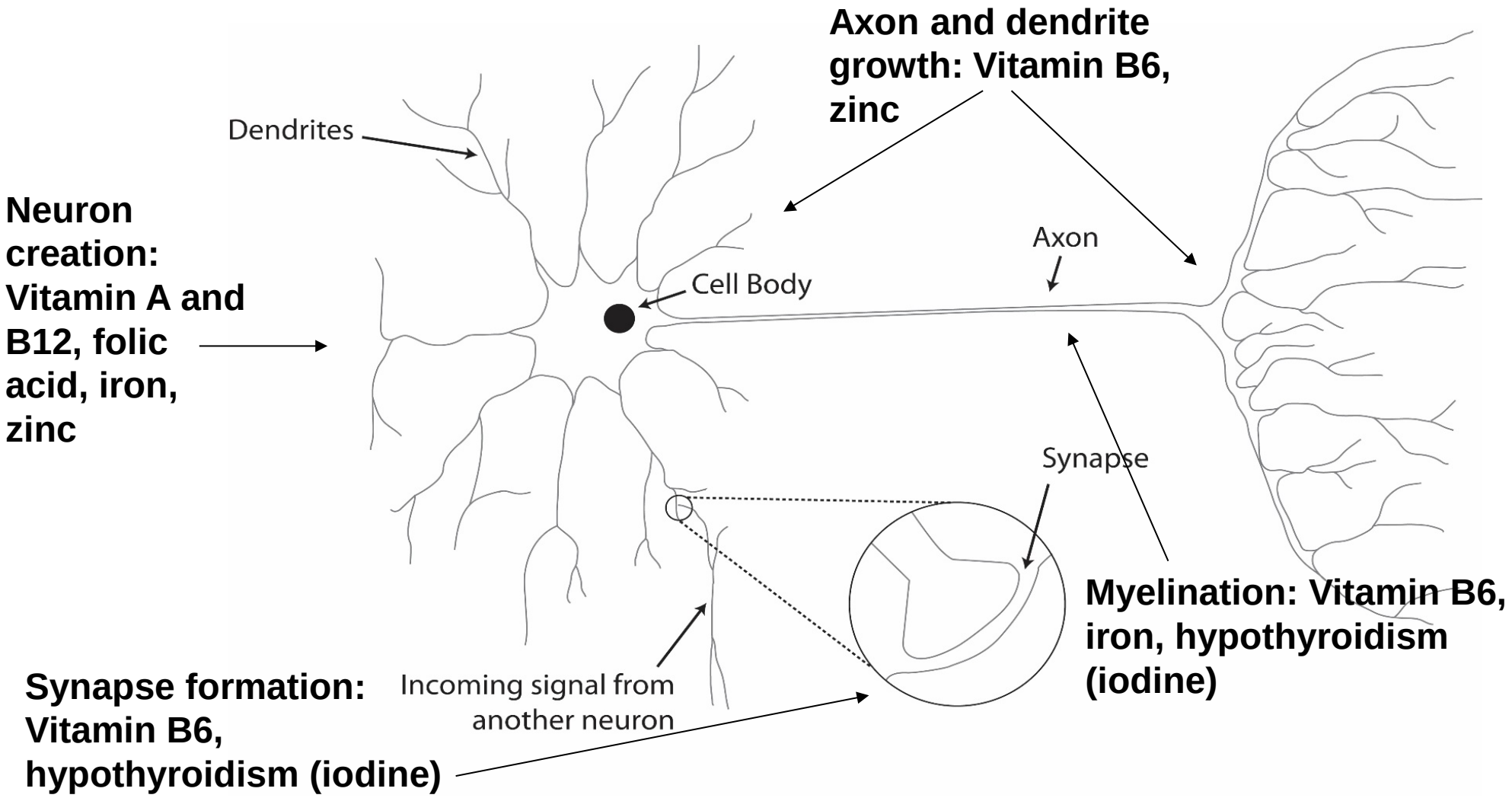
Grantham-McGregor, S., Y. B. Cheung, et al. (2007). "Developmental potential in the first 5 years for children in developing countries." Lancet **369**: 60-70.

Potential Pathways



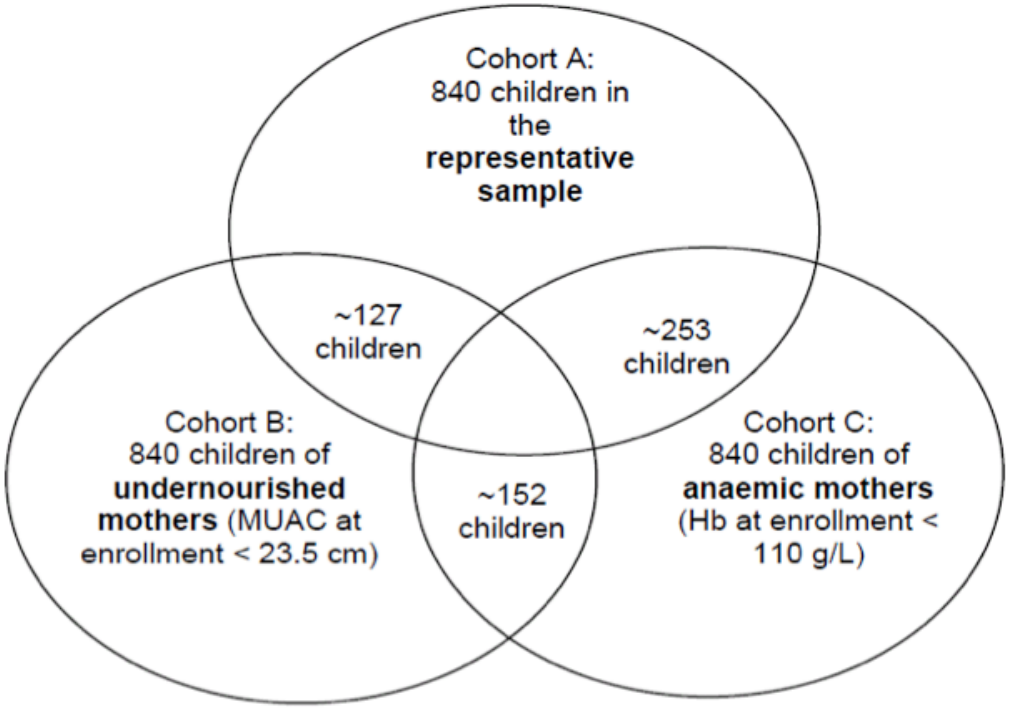
Adapted from Levitsky & Barnes (1972) and Pollitt (1993)

Micronutrients and Neurodevelopment



Summit re-enrollment study at 10-years

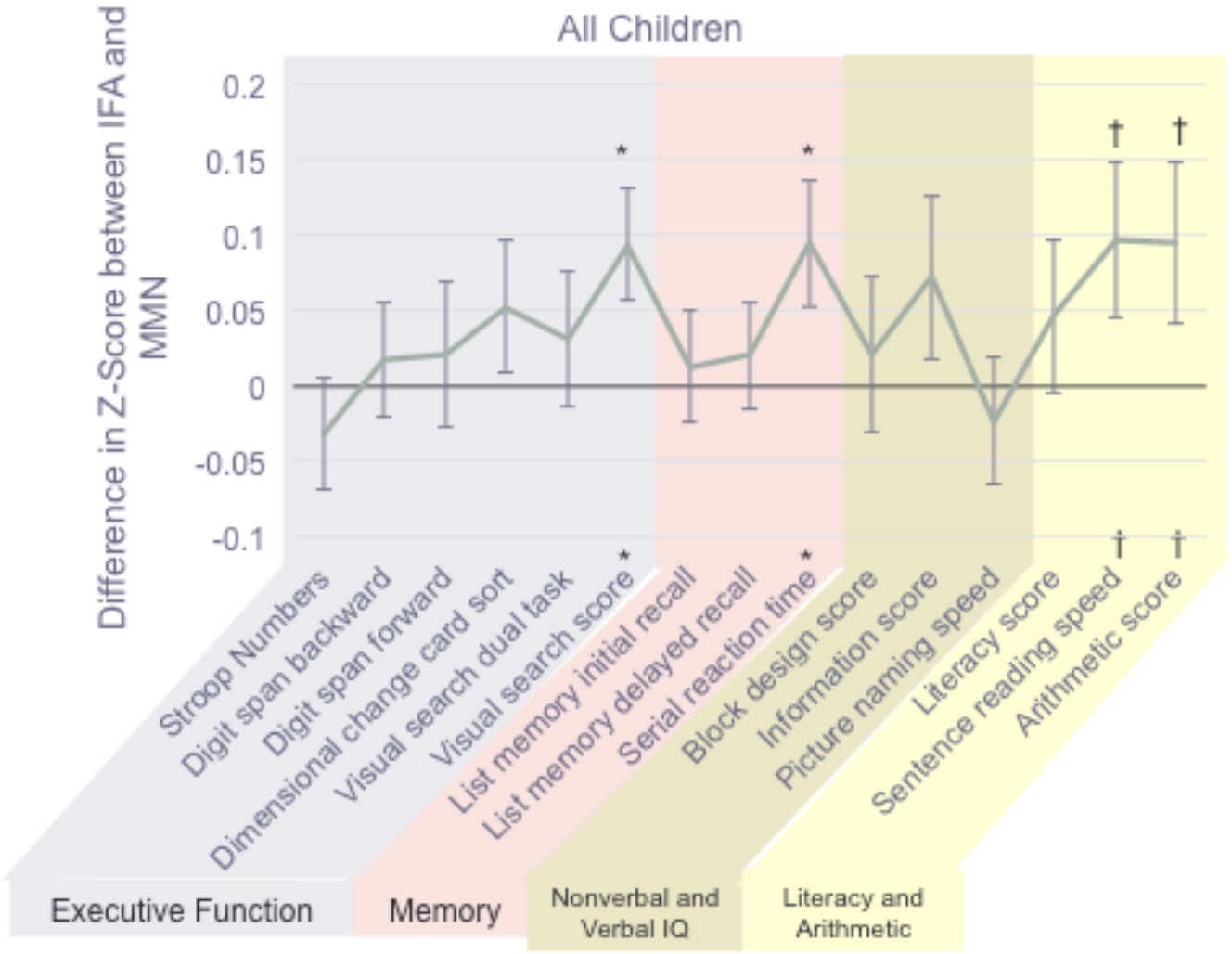
- Re-enrolled 72% (19,800/27,300) of 9-12 years-old children from SUMMIT who were last reported alive at 3-months of age:
  - Growth
  - Morbidity and mortality
  - School performance
- Examined a subgroup of 3,400 for detailed cognitive and developmental status



Specific cognitive tests conducted

- ***General intellectual ability***
  - **WISC block design, information**
- ***Memory***
  - **word list, serial reaction time**
- ***Executive function***
  - **visual search, digit span, Stroop test, dimensional change card sort**
- ***Behavioral and emotional status***
  - **modified child behavior checklist**
- ***Fine motor skills***
  - **Purdue pegboard**
- ***Environment***
  - **Modified HOME and CES-D**

Individual Cognitive Test Z-Scores: All Children



Significant effect of maternal MMN on

- Visual Selective Attention
- Procedural Memory

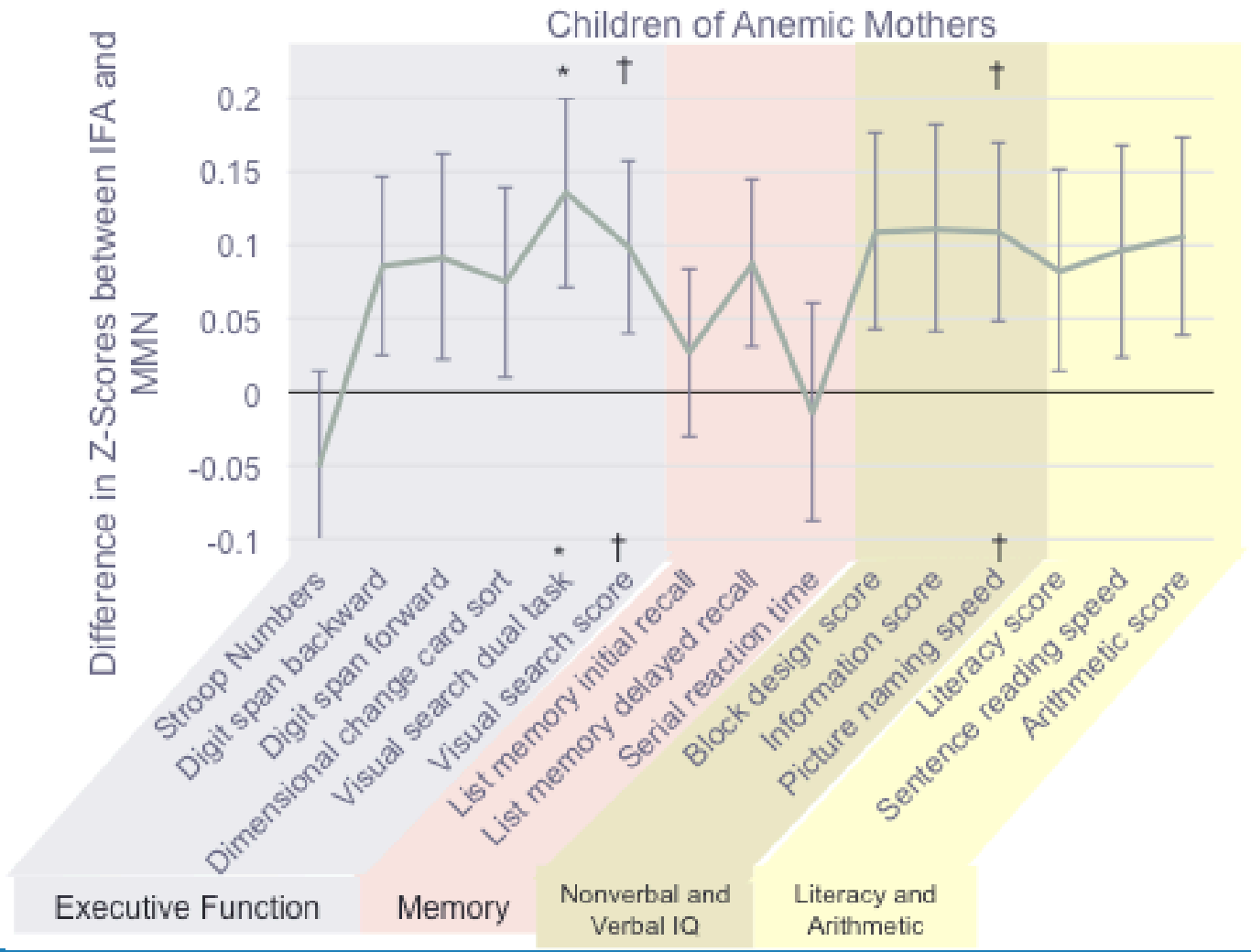
Trend for

- Sentence Reading Speed
- Arithmetic

Effect size 0.1 SD equivalent to an advance of ~ 3 to 4 months of age

*$p < 0.05$
†$p < 0.1$

Individual Cognitive Test Z-Scores: Children of Anemic Mothers



Significant effect of maternal MMN on

- Visual Sustained Attention

Trend for

- Visual Selective Attention
- Expressive Language

Effect size 0.1 SD equivalent to an advance of ~ 3 to 6 months of age

*$p < 0.05$
†$p < 0.1$

Conclusions

- Maternal MMN supplementation, compared to IFA, had small but significant positive effects on aspects of cognition 9-12 years later
  - Effect sizes about 0.1 SD, equivalent to 3-6 months of life
- Children of mothers with different nutritional status during pregnancy benefited in different cognitive abilities
  - In the more vulnerable groups (undernourished and anemic mothers), positive effects were found on visual attention and verbal ability, consistent with previous effects on infant mortality and pre-school cognition
  - In the healthier groups (well-nourished and non-anemic mothers), positive effects were found on sentence reading speed and procedural memory, consistent with previous effects on birth weight

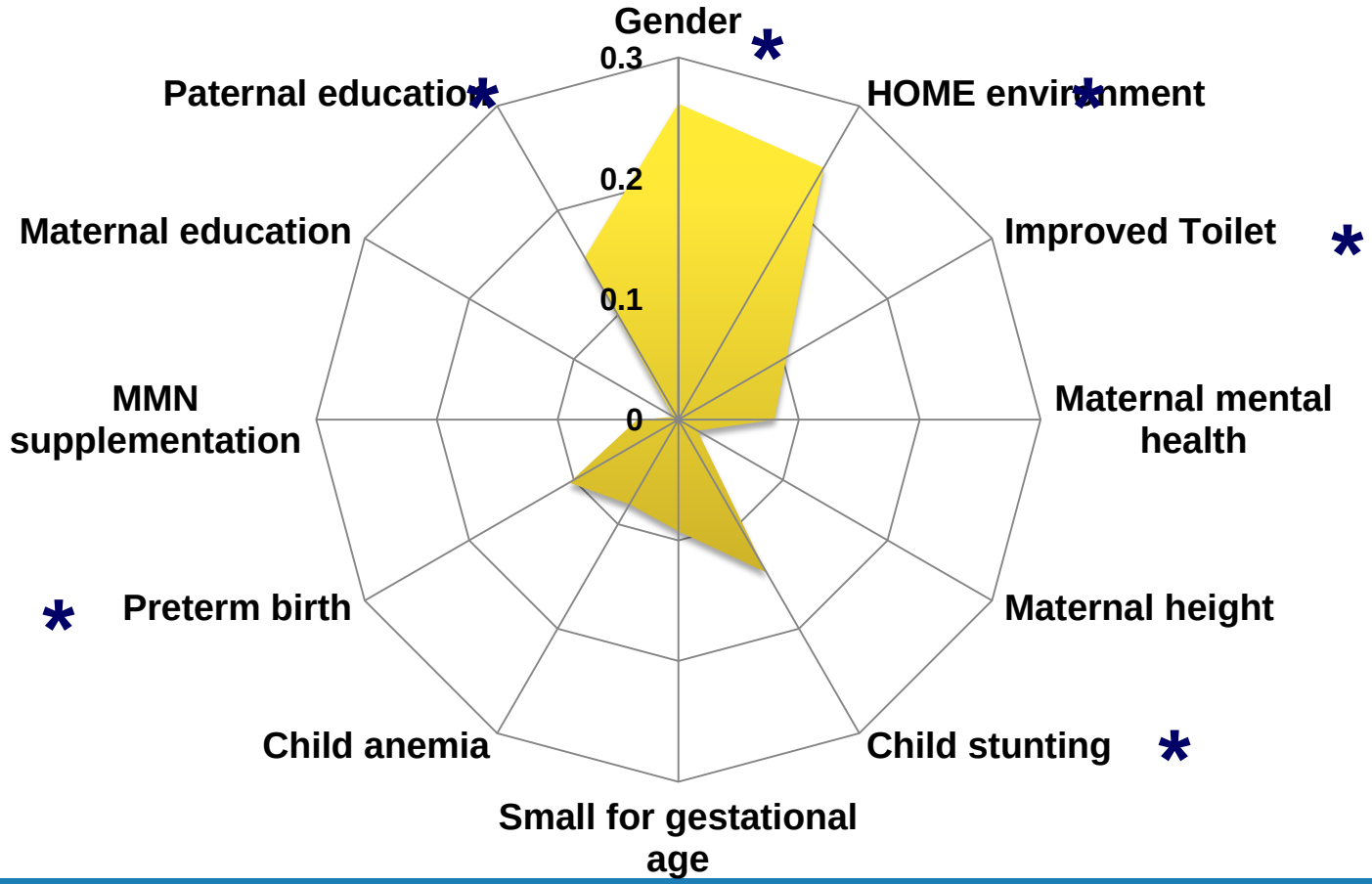
Relative effects of social and physical factors on cognitive performance

- Select a sub-group of predictors most frequently associated with the multiple outcomes:
  - Social factors: gender, HOME environment, improved toilet, maternal mental health, maternal education, paternal education
  - Physical health: Maternal height, child stunting, small for gestational age, child anemia, preterm birth, MMN supplementation
- Create a multi-dimensional analysis and plots of effect size (i.e. z-scores) for each predictors on specific tests

Social and physical factors influencing cognitive test performance

Educational attainment (arithmetic score)

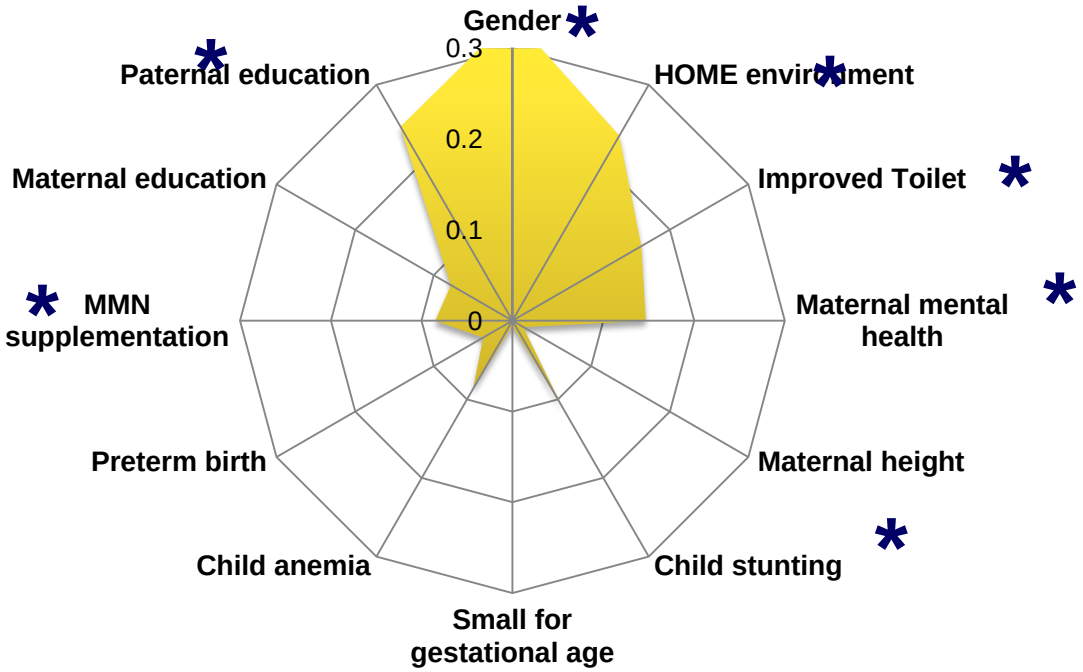
*indicates statistically significant effect



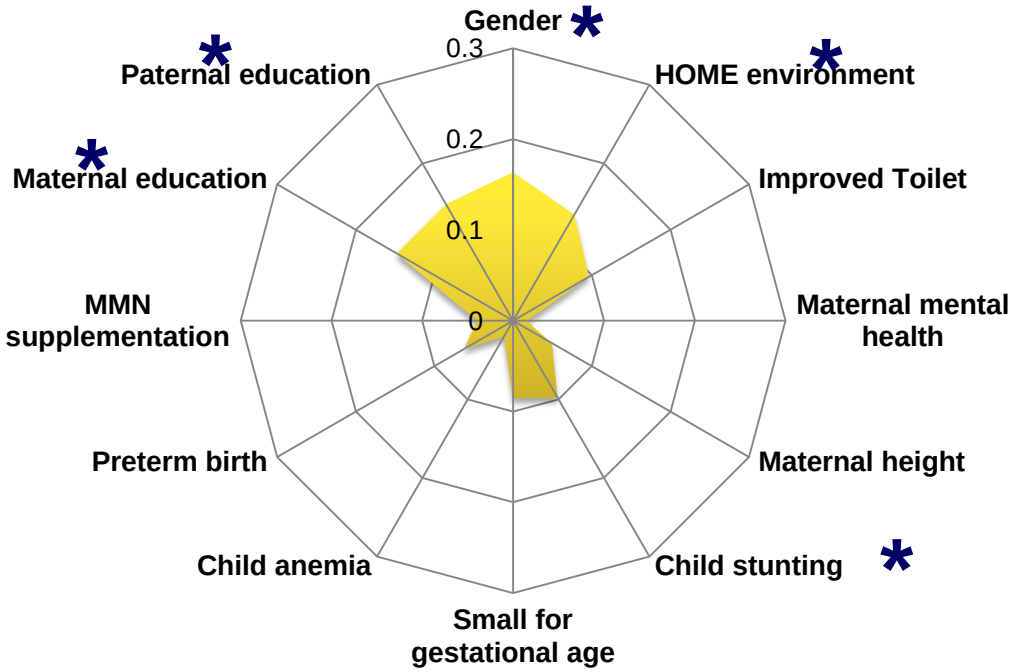
Social and physical factors influencing cognitive test performance

General Intelligence

verbal

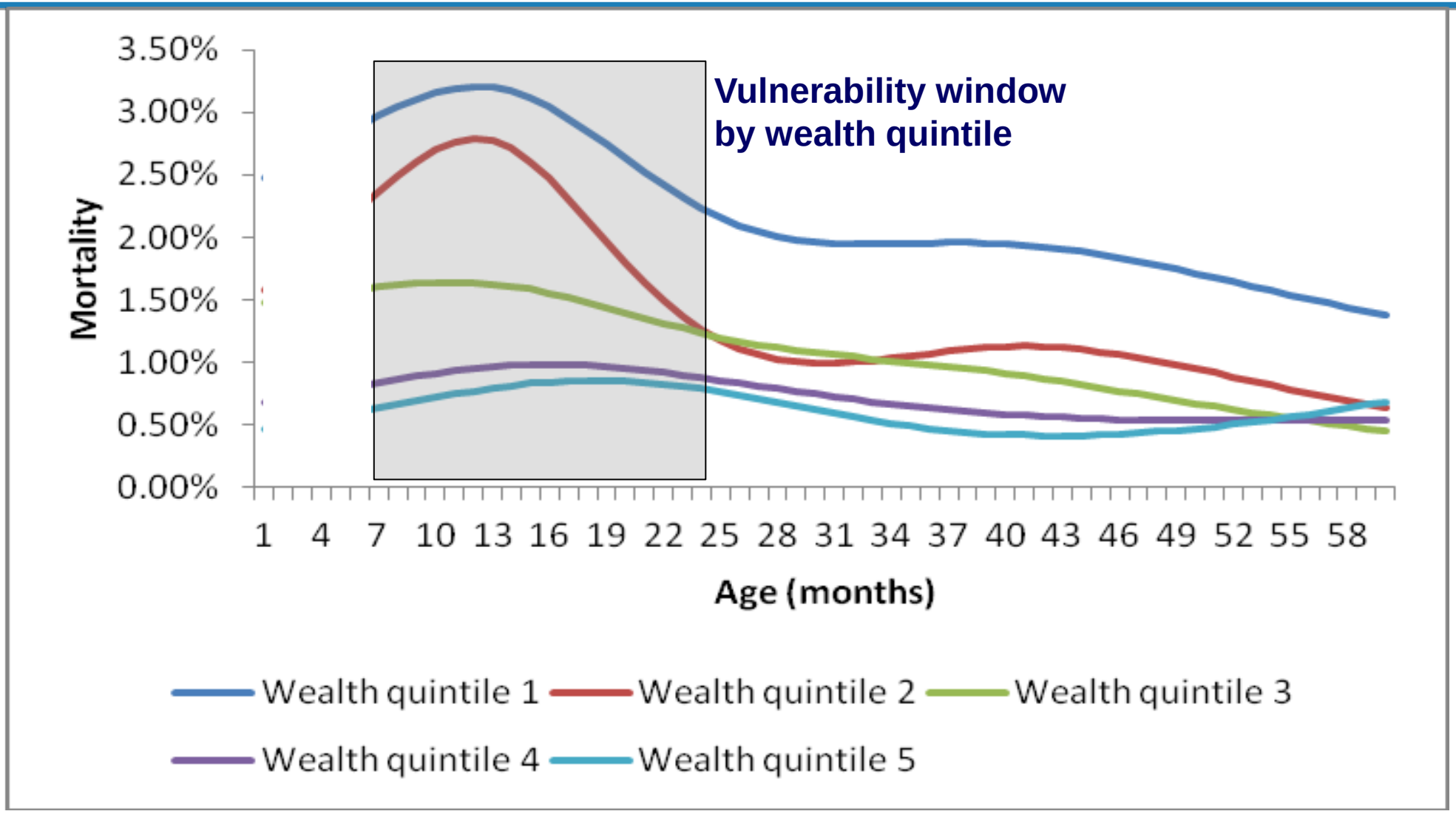


non-verbal



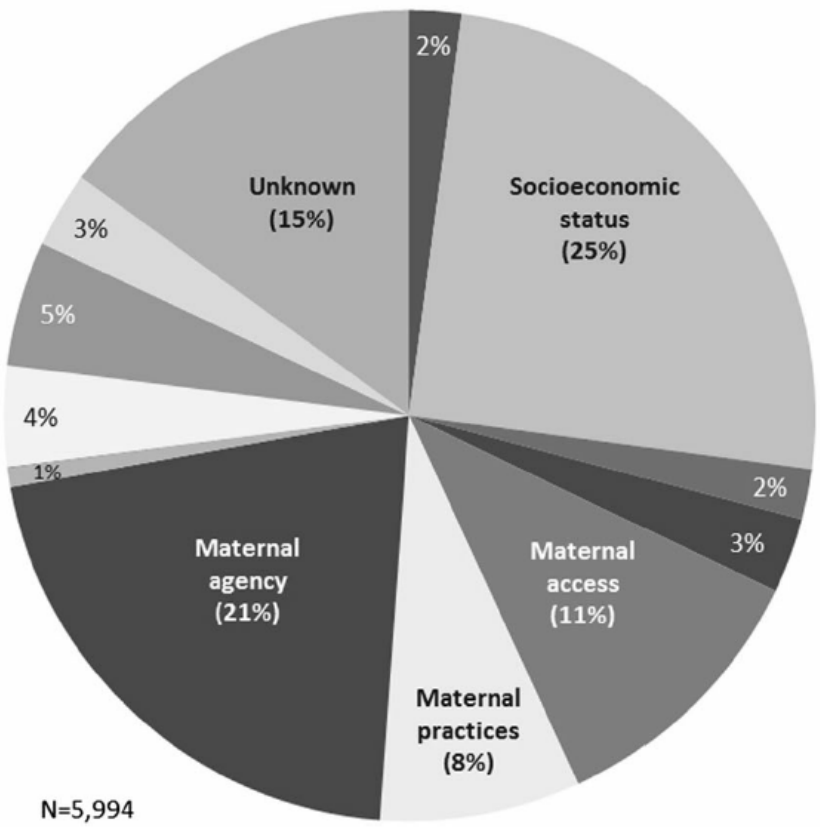
Evidence for the influence of social determinants by age and wealth quintile in Indonesia

adjusted for modifiable health sector interventions (Indonesia DHS data 2007-2012)



Social determinants have a very large role in child health: maternal agency and respiratory infections

B Population attributable risk for ARTIs



Type of Residence	2%	Distal Factors 32%
Socioeconomic status	25%	
Mother's length of education	2%	
Mother's age	3%	
Maternal access to care	11%	Intermediate Factors 40%
Maternal practices and experiences	8%	
Maternal agency	21%	
Family size	0.8%	Proximate Factors 13%
Child age	0.1%	
Child sex	4%	
Completed immunization	5%	
Received vitamin A supplementation	3%	
Unknown	15%	

Agustina R et al. Matern Child Health J. 2015;19:1033

Maternal health and child cognition: summary of findings

- Policies to promote maternal nutrition are critical for health and survival of the mother and child:
  - Protein calorie nutrition
  - Multiple micronutrients
- Policies and programs are urgently needed to promote child cognition, beyond survival to “thrival”, and these must address:
  - social determinants of cognition
  - Issues of inequity for coverage and quality of programs
- Integrated cross-sectoral policies will be required

Thanks to all collaborators

- **Summit design, implementation, analysis**: Mandri Apriatni, Susy Sebayang, Aditiawarman, Benjamin Harefa, Josephine Kadha, Abas Jahari, Husni Muadz,
- **Summit cognitive studies**: Beth Prado, Nina Hidayati, Siti Adawiyah, Ayu Islamiyah, Nisaa Wulan, William Iskandar, Sudirman Siddiq, Michael Ullman, Katie Alcock
- **Maternal and child health data analysis**: Rina Agustina, Suparmi, Kun Susiloretni, Aria Kekalih, Luh Ade Wiradnyani, Judiastuty Februhartanty, Maggie Triyana, Didit Damayanti, Andrew Mitchel, Emily Smith
- **Generous support from**: Rajawali Foundation, USAID-Indonesia, USAID-Washington, Grand Challenges Canada, WHO, UNICEF, Turner Foundation and the Center for Health and Human Development, National Institute of Health Research and Development, Summit Institute of Development, Seameo-Recfon, University of Indonesia, the Ash Center at the Harvard Kennedy School and The Harvard T.H. Chan School of Public Health

Terima Kasih!

RURAL HEALTH SERVICES IN VIETNAM

Nguyen Thi Mai Huong
Director
Center for Community Health Research and Development

CCRD
Center for Community Health Research and Development
www.ccrd.vn

Country brief

Health Services System

The Primary Health Care System

Financing for PHC

The Front Line Health Workers

CCRD
Center for Community Health Research and Development
www.ccrd.vn

Viet Nam


Hanoi
Paracel Islands
Spratly Islands
TRUNG QUỐC
VỊNH BẮC BỘ
ĐẢO HẢI NAM
(TRUNG QUỐC)
LÀO
THÁI LAN
CAMPUCHIA
BIỂN ĐÔNG
BIỂN ĐÔNG
VIỆNG CHĂN
PHNÔM PÊNH
VỊNH THÁI LAN
ĐẢO HOÀNG SA
QUẦN ĐẢO
TRƯỜNG SA
CAO BẰNG
HÀ GIANG
LÀO CAI
LAI CHÂU
ĐIỆN BIÊN
TUYÊN QUANG
BẮC KẠN
THÁI NGUYÊN
LẠNG SƠN
YÊN BÁI
SƠN LA
QUẢNG NINH
HÒA BÌNH
THÁI BÌNH
NAM ĐỊNH
NINH BÌNH
THANH HÓA
NGHỆ AN
HÀ TĨNH
QUẢNG BÌNH
QUẢNG TRỊ
THỪA THIÊN HUẾ
QUẢNG NAM
QUẢNG NGÃI
KON TUM
BÌNH ĐỊNH
GIA LAI
ĐẮK LẮK
PHÚ YÊN
KHÁNH HÒA
ĐẮK NÔNG
LÂM ĐỒNG
NINH THUẬN
BÌNH PHƯỚC
TÂY NINH
BÌNH DƯƠNG
BÌNH THUẬN
ĐỒNG NAI
BÀ RỊA VŨNG TÀU
TP. HỒ CHÍ MINH
LONG AN
ĐỒNG THÁP
AN GIANG
TIỀN GIANG
BẾN TRE
VĨNH LONG
CẦN THƠ
KIÊN GIANG
HẬU GIANG
TRÀ VINH
SÓC TRĂNG
BẠC LIÊU
CÀ MAU
THỦ ĐÔ
THÀNH PHỐ
TỈNH LỴ

- Population**:** **89.7 millions**
- Rural/urban population: **32% / 68%**
- Ethnicity: 54 ethnic groups

  (Ethnic minority accounts for **15%**)
- GDP per capita: **USD 2.200**
- Literacy rate:
- Life expectancy: **73 years**

Major health indicators

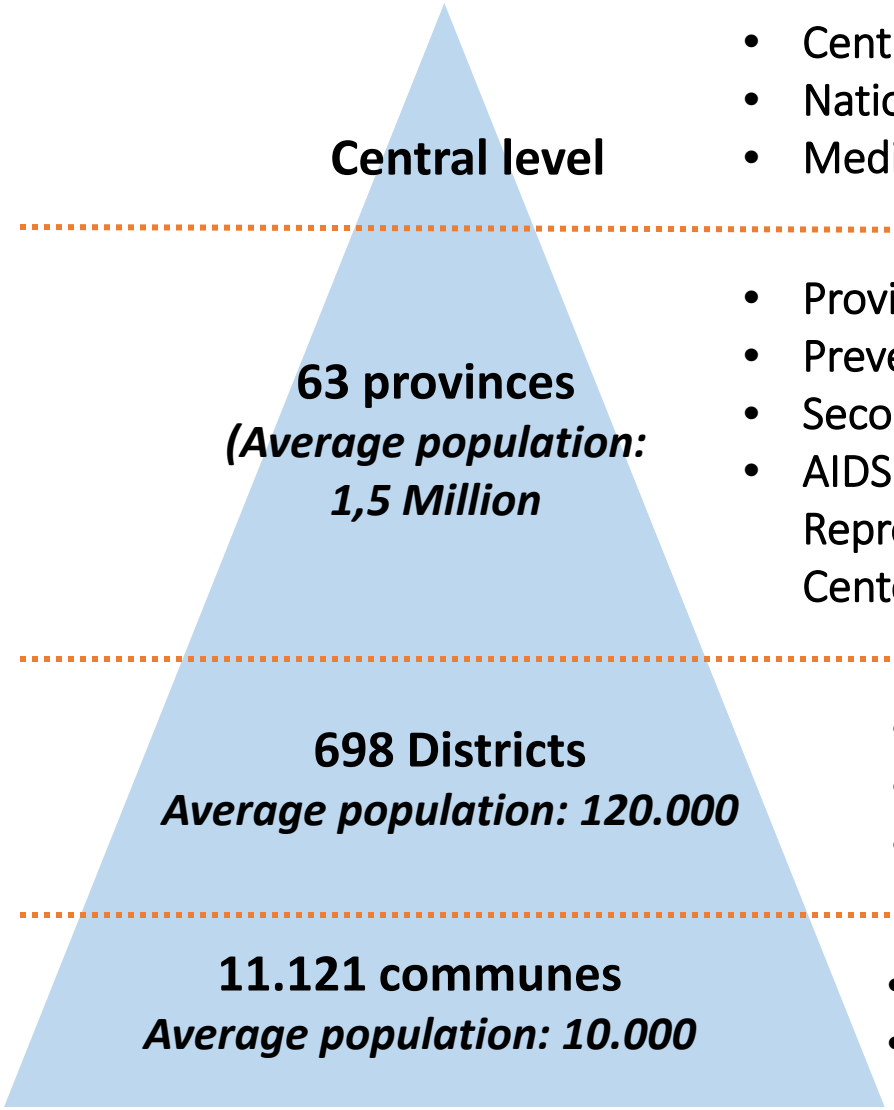
Infant mortality: 15.3 ‰
(**Rural:** 18,3‰ ; **Urban:** 8,9‰)

<5 child mortality: 23 ‰
(**Rural:** 27,5‰ ; **Urban:** 13,3‰

Maternal mortality: 49/100 000 **live births**
Maternal death in rural area is estimated to be twice higher than in urban area

HIV Prevalence among population: 0,26%

The Health Service System



Central level

- Central Hospitals
- National Institutes
- Medical/Pharmaceutical Universities

63 provinces
(Average population: 1,5 Million

- Provincial Hospitals (general,specialized)
- Preventive Health Center
- Secondary Medical School
- AIDS Control Center, Population-FP Center, Reproductive Health center, Food Safety Center, Health education-Information center

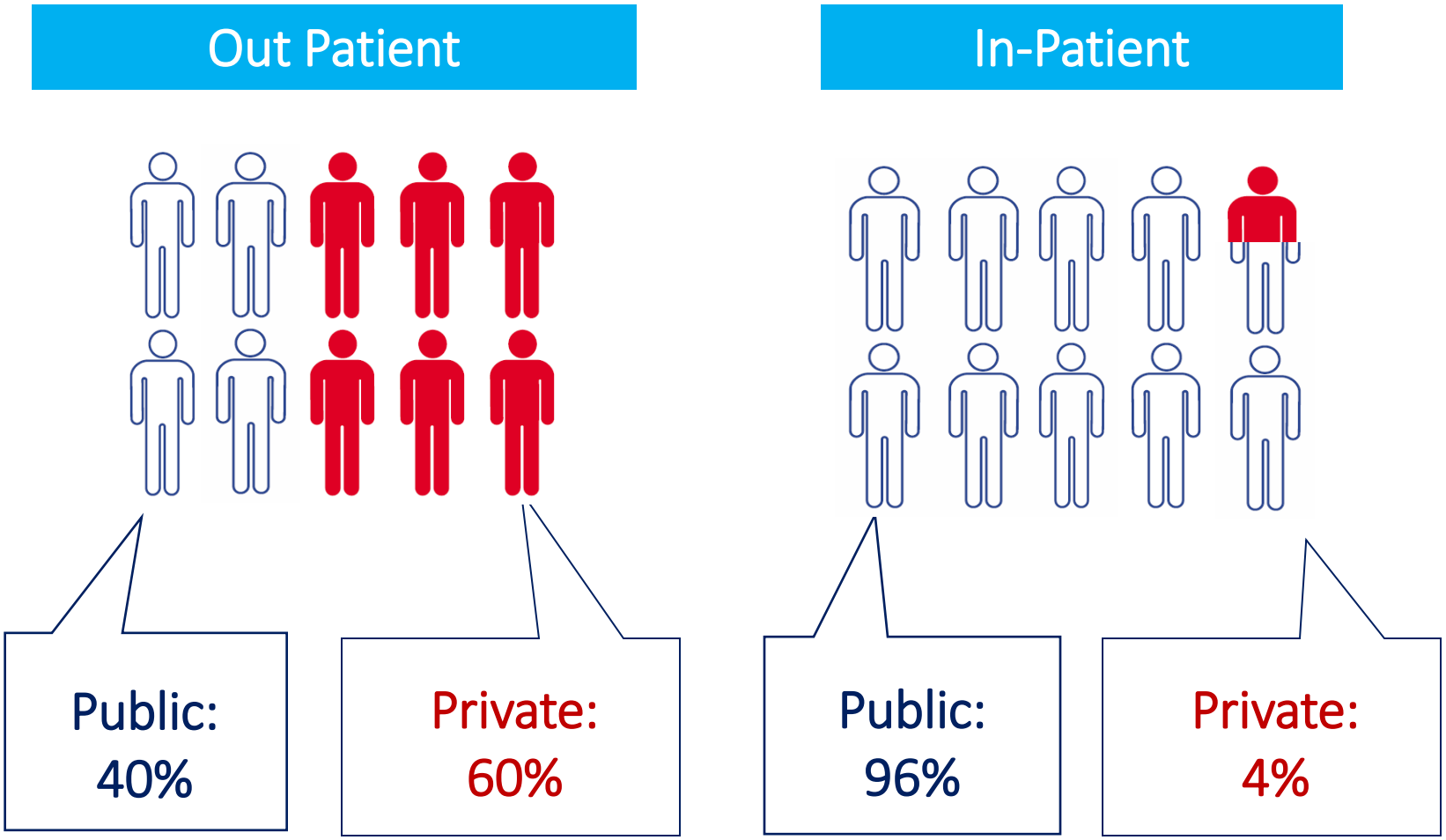
698 Districts
Average population: 120.000

- District general Hospital
- District Medicine Center
- District Ppulation-FP Center

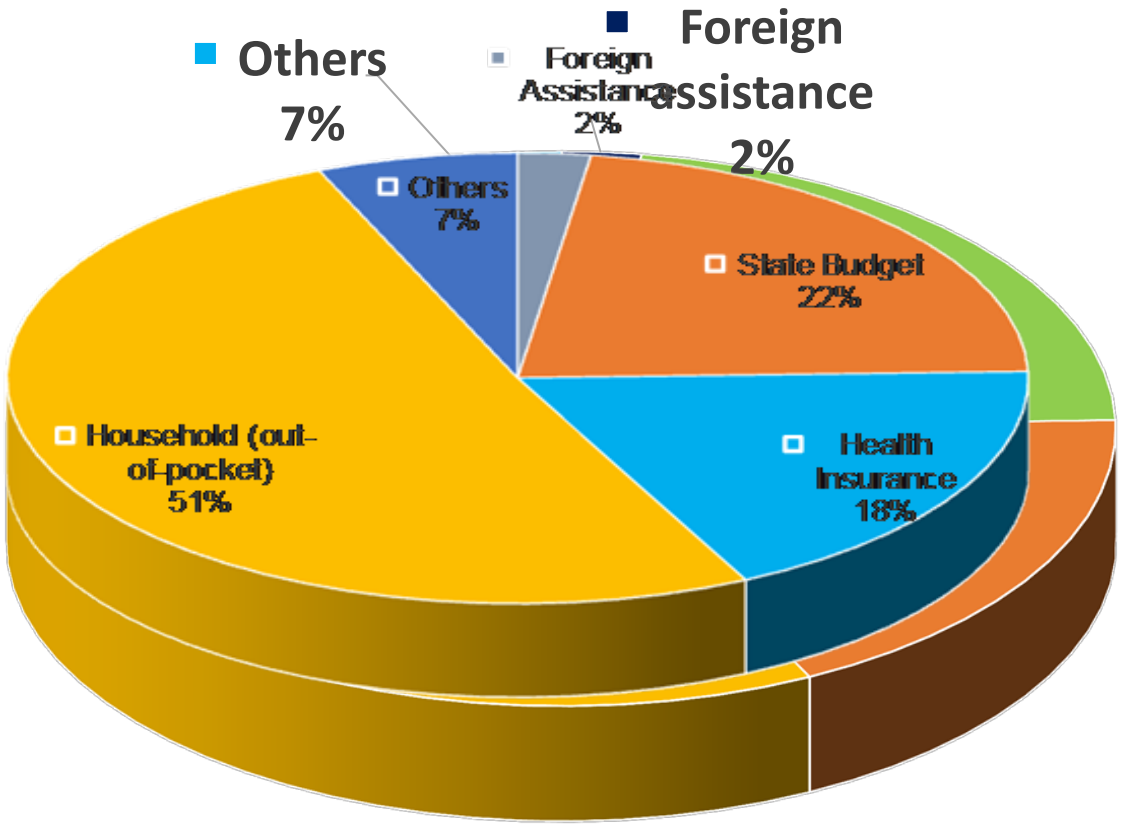
11.121 communes
Average population: 10.000

- Commune Health Center
- Village Health Workers

Distribution of Public – Private Health Services



Sources of Health Financing



Source: National Health Account 2010, MOH& WHO, 2011

The Primary Health Care System

- Vietnam Primary Health Care system was established in 1960s.
- Is an unique system nation-wide.
- Includes district and commune level.
- Mainly serve 67% of rural population.
- Covers all 8 components of PHC.
- Currently financed from 3 main sources: State budget, out-of pocket payments and health insurance.

CCRD
Center for Community Health Research and Development
www.ccrd.vn

The Commune Level

- The Commune Health Center is central of PHC and available in every commune throughout Vietnam.
- Serve average population of 120.000 (ranging from 5,000 in remote areas to 20,000 in the populated delta).
- Has average staff of 6-8 including mid-wife (mostly college graduate), auxiliary medical doctor or doctor, and nurses.
- Manage and back-up the village health workers.
- Mainly financed from State budget and Health Insurance.

Commune Health Center

Mountainous Health Station

Delta Health Station

District level

- Is the first referral level to the grassroots level (commune health center).
- Has a complete system of disease treatment and prevention.
- Has a general hospital of 100-150 beds serving average population of 120,000 living in rural and urban.
- Financed from the State budget, Health Insurance and out-of-pocket payments.

District **hospital**

What are the strength of PHC system in Vietnam?

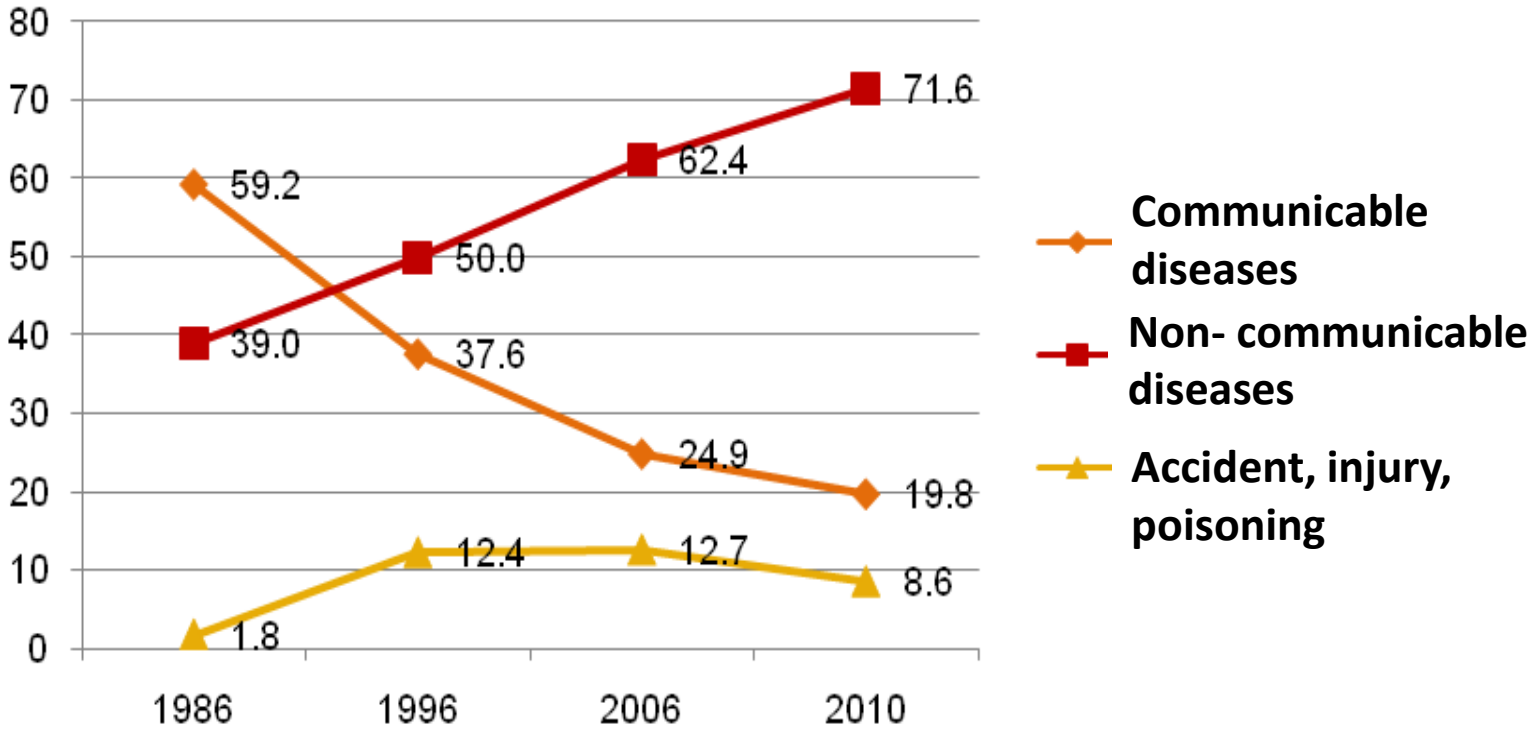
- Availability and accessibility: 100% districts and 95% communes
- Strong technical capacity to resolve most of health care needs.
- High sustainability thanks to the State budget and high health insurance coverage (70% population).
- High literacy rate of population.

What are the constraints/challenges of PHC system in Vietnam

- The system is too unique to effectively meet specific needs of different population groups and settings.
- Remain the same in structure and functions since 1960s.
- May not be cost-effective in the market economy.
- Limited capacity in coping with emerging health issues especially the non-communicable diseases.
- Change of health financing mechanism.

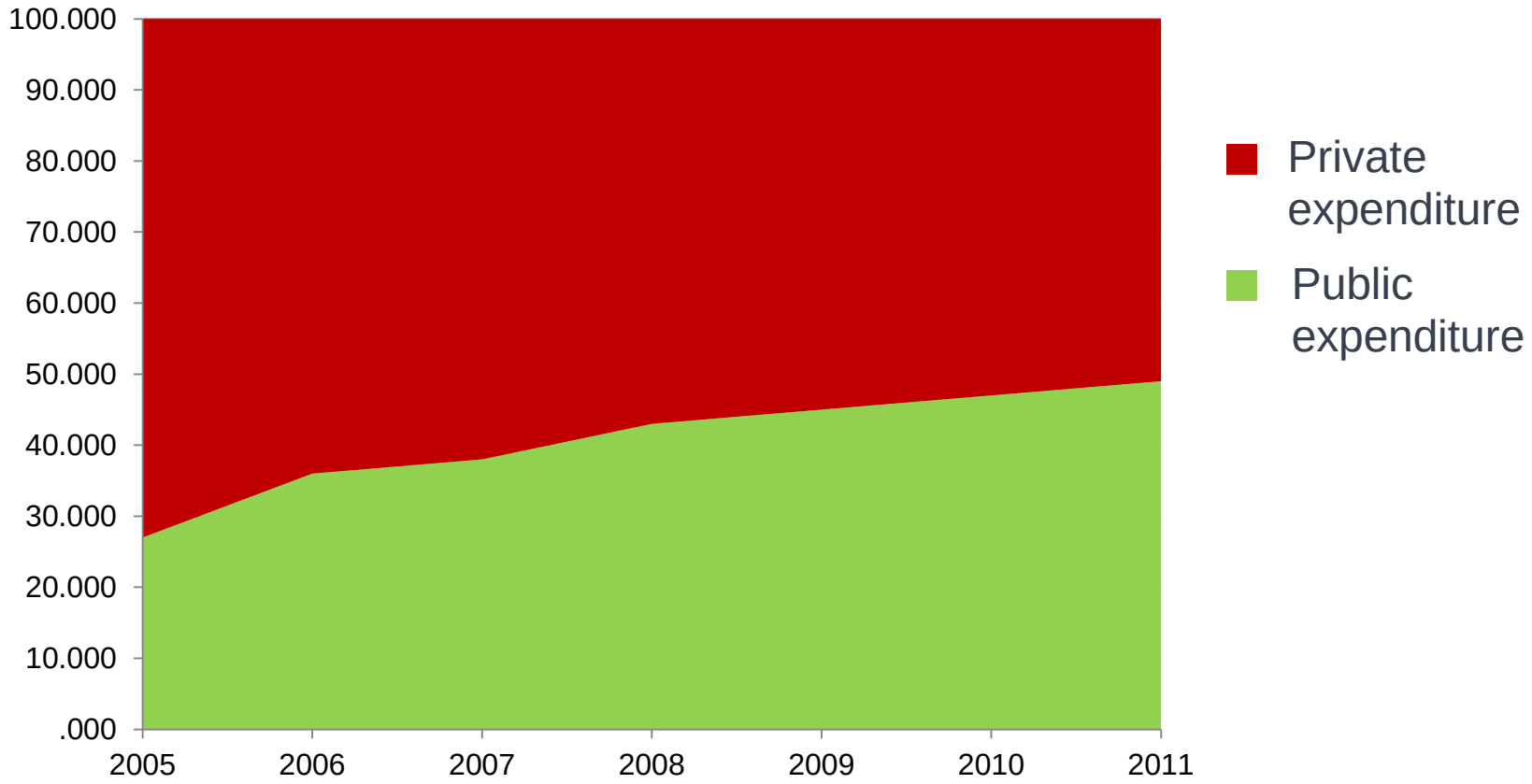
Change of morbidity pattern in Vietnam

Cause of hospitalization



Health Statistics, 2010

Public – Private expenditures in the health care: challenge to PHC



What would be the future trend?

- Adapt a new outlook of rural health services especially the structure of PHC system, which will be totally client oriented but economically smart.
- Develop appropriate strategy for the health financing and human resource development that can support the materialization of the new outlook of the PHC system.
- Give higher attention to strengthening preventive medicine to effectively cope with emerging health issues especially non-communicable disease.

What is critical agent for making changes?

LEADERSHIP! LEADERSHIP AND LEADERSHIP

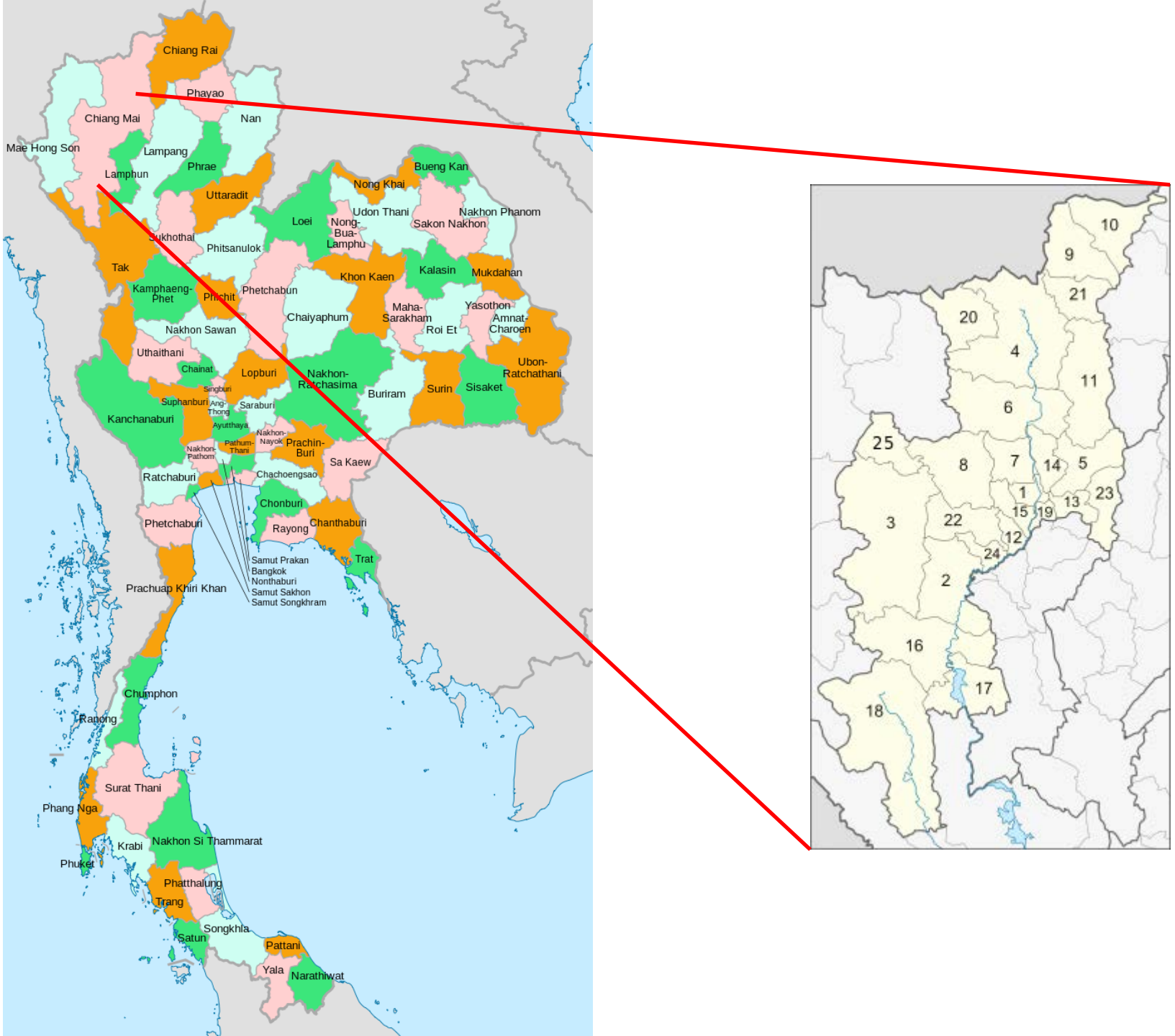
THANK YOU!

The District Health System Under Thailand's Universal Coverage Scheme

Udomsak Saengow
MD, PhD
Walailak University

Thailand's administrative division

- Province (changwat): 76 + 1 special administrative area
- Each province is subdivided into "districts" (amphoe)
- Each district comprises of subdistricts or townships (tambon)


Chiang Rai
Phayao
Chiang Mai
Nan
Mae Hong Son
Lampang
Phrae
Lamphun
Uttaradit
Bueng Kan
Nong Khai
Udon Thani
Nakhon Phanom
Loei
Nong-Bua-Lamphu
Sakon Nakhon
Sukhothai
Phitsanulok
Tak
Khon Kaen
Kalasin
Mukdahan
Kamphaeng-Phet
Phichit
Phetchabun
Chaiyaphum
Maha-Sarakham
Yasothon
Roi Et
Amnat-Charoen
Nakhon Sawan
Uthaithani
Chainat
Lopburi
Nakhon-Ratchasima
Ubon-Ratchathani
Buriram
Surin
Sisaket
Singburi
Suphanburi
Ang-Thong
Saraburi
Kanchanaburi
Ayutthaya
Nakhon-Nayok
Prachin-Buri
Pathum-Thani
Nakhon-Pathom
Sa Kaew
Ratchaburi
Chachoengsao
Chonburi
Phetchaburi
Rayong
Chanthaburi
Trat
Samut Prakan
Bangkok
Nonthaburi
Samut Sakhon
Samut Songkhram
Prachuap Khiri Khan
Chumphon
Ranong
Surat Thani
Phang Nga
Krabi
Nakhon Si Thammarat
Phuket
Phatthalung
Trang
Songkhla
Satun
Pattani
Yala
Narathiwat

10
9
21
20
4
11
6
25
8
7
14
5
1
23
13
15
19
3
22
12
24
2
16
17
18

District Health System (DHS)

- Definition: a close-to-client service provider
  - One district hospital with 10 to12 subdistrict health centers
  - Catchment area: approximately 50,000 population

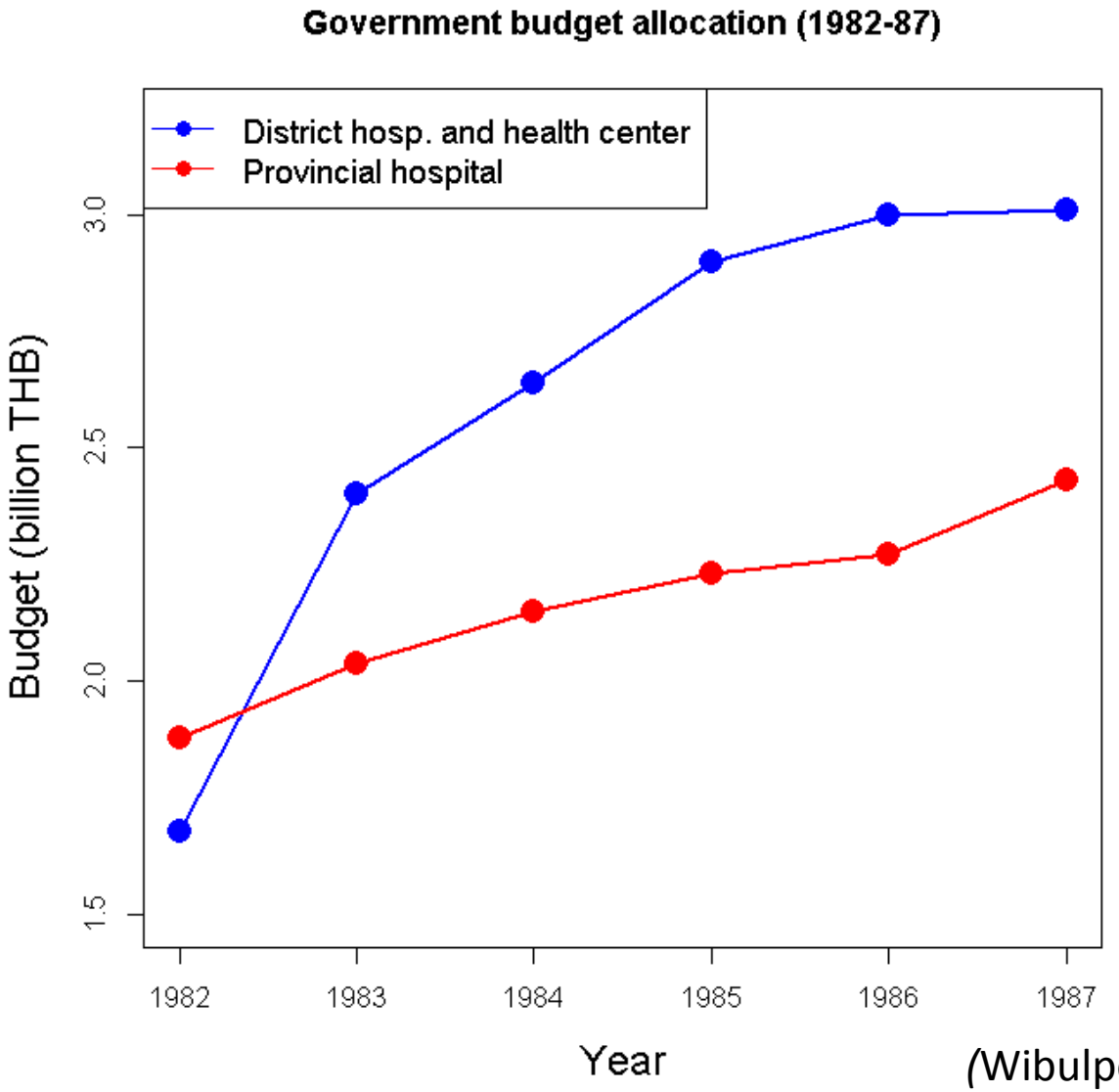
(WHO, 2007; Tangcharoensathien et al., 2013)

Infrastructure investment

- 1961-1966: 1st National Economic Development Plan—100% coverage of provincial hospitals
- 1973: Student activists (against military government) gaining rural experience during the movement later became leaders of major healthcare reform
- 1977: DHS development began
- 1982-1987: Shift in allocation of public health budget between rural and urban hospitals

*(*Wibulpolprasert, *2008; Tangcharoensathien et al., 2013)*

Shift in budget allocation (1982-1989)



(Wibulpolprasert, *2008)*

Infrastructure investment

- 1942: 15 provincial hospitals and 343 rural health centers
- 2001 (excluding Bangkok):
  - 70 provincial and 25 regional hospitals (75 provinces)
  - 725 district hospitals (700+ districts)
  - 9,979 health centers (7,000+ subdistricts)
- 2014 (excluding Bangkok):
  - 68 provincial and 28 regional hospitals (76 provinces)
  - 787 district hospitals (801 districts)
  - 9,983 health centers (7,255 subdistricts)

(Wibulpolprasert, 2004; Wibulpolprasert, 2008; National Statistical Office, 2014)

Human resource investment

- 1968: Mandatory rural service by medical graduates (3 years)
- 1975: Monthly hardship allowance

- Present requirement:
  - 3 years for doctors and dentists
  - 2 years for nurses

(Wiwanitkit 2011; Tangcharoensathien et al., 2013)

Human resource investment

- 1995-present: Collaborative Project to Increase the Production of Rural Doctors (CPIRD)—3-year mandatory service in their provinces

- 2005-present: One District, One Doctor (ODOD)—12-year mandatory service in their districts

(Tangcharoensathien et al., 2013)

Health financing

- 1975: Low Income Scheme
  - In 2000, this scheme covered only 17% of the poor
- 1983: Voluntary Health Card Scheme
  - Adverse selection
- 1992: Social Security Scheme
  - Formal sector employees

(Tangcharoensathien et al., 2007; Wibulpolprasert, *2008)*

Health financing

- In 2000, 29% of Thais were still uninsured.

- 2001: Universal Coverage Scheme (UCS) was introduced by combing previous Low Income Scheme and Voluntary Health Card Scheme, also including 18 million then uninsured Thais.

(Tangcharoensathien et al., 2007; Wibulpolprasert, *2008)*

Roles of DHS under UCS

- UCS beneficiaries typically resided in rural areas.
- DHS is employed as a primary contractor.
- UCS beneficiaries are assigned to their nearby primary care providers—ranging from health centers to tertiary hospitals.

(Tangcharoensathien et al., 2007; Wibulpolprasert, *2008)*

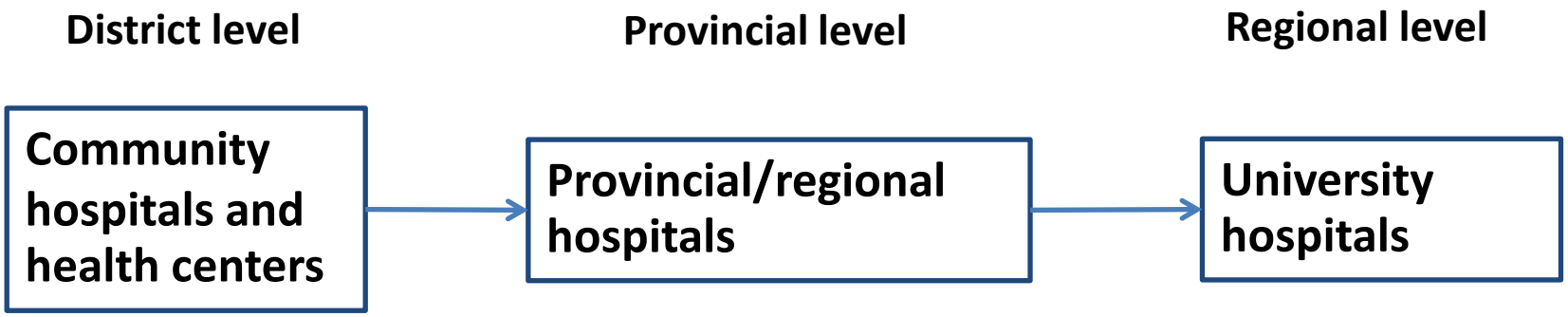
Roles of DHS under UCS

- Employment of DHS as primary contractor for UCS enforces referral line and further redistributes public health resource to rural areas.

- Currently, 73.8% of Thai population is under UCS.

(NHSO, 2015)

Referral line

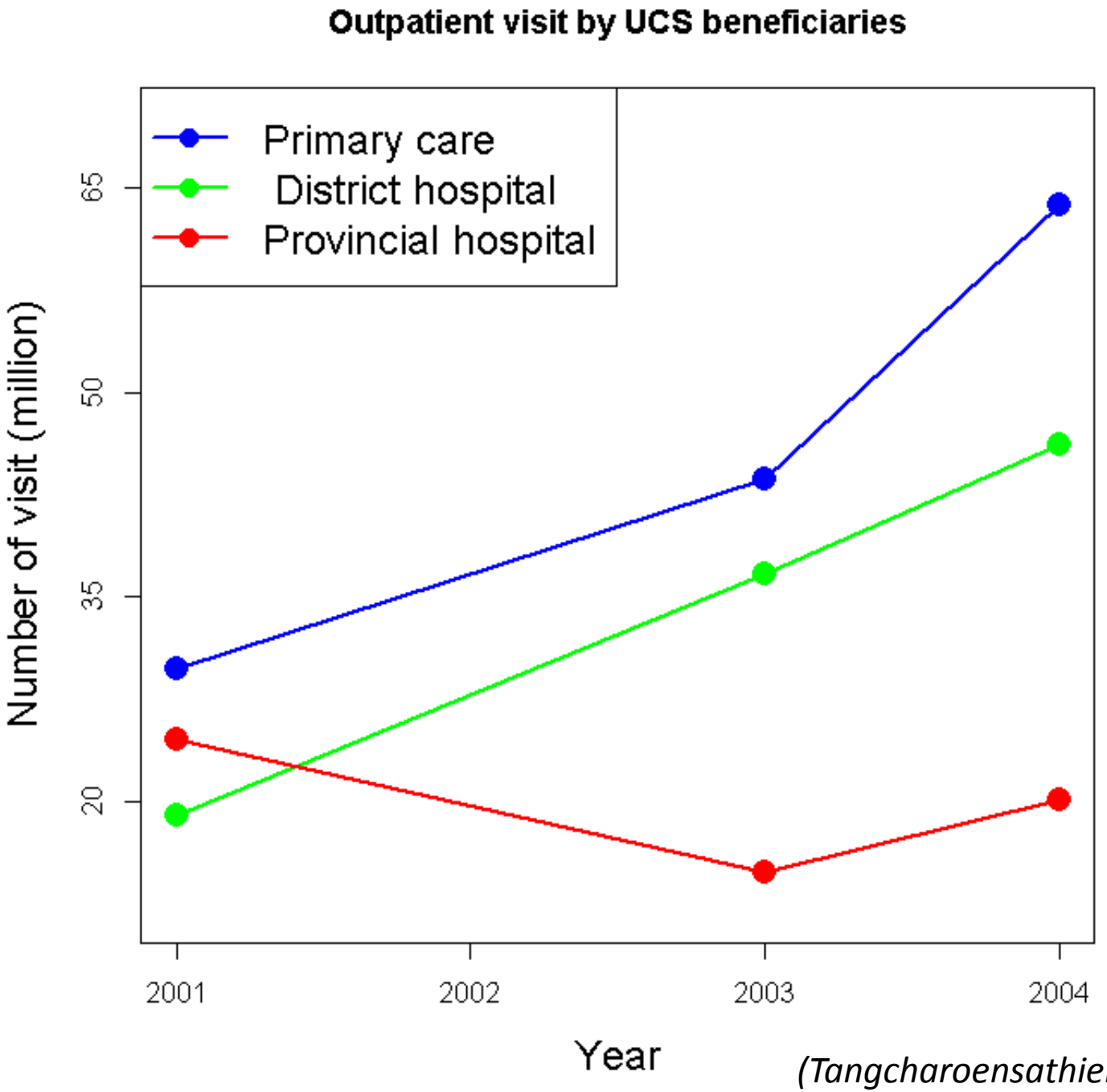


Beneficiaries have freedom to bypass their registered primary care providers at their own cost.

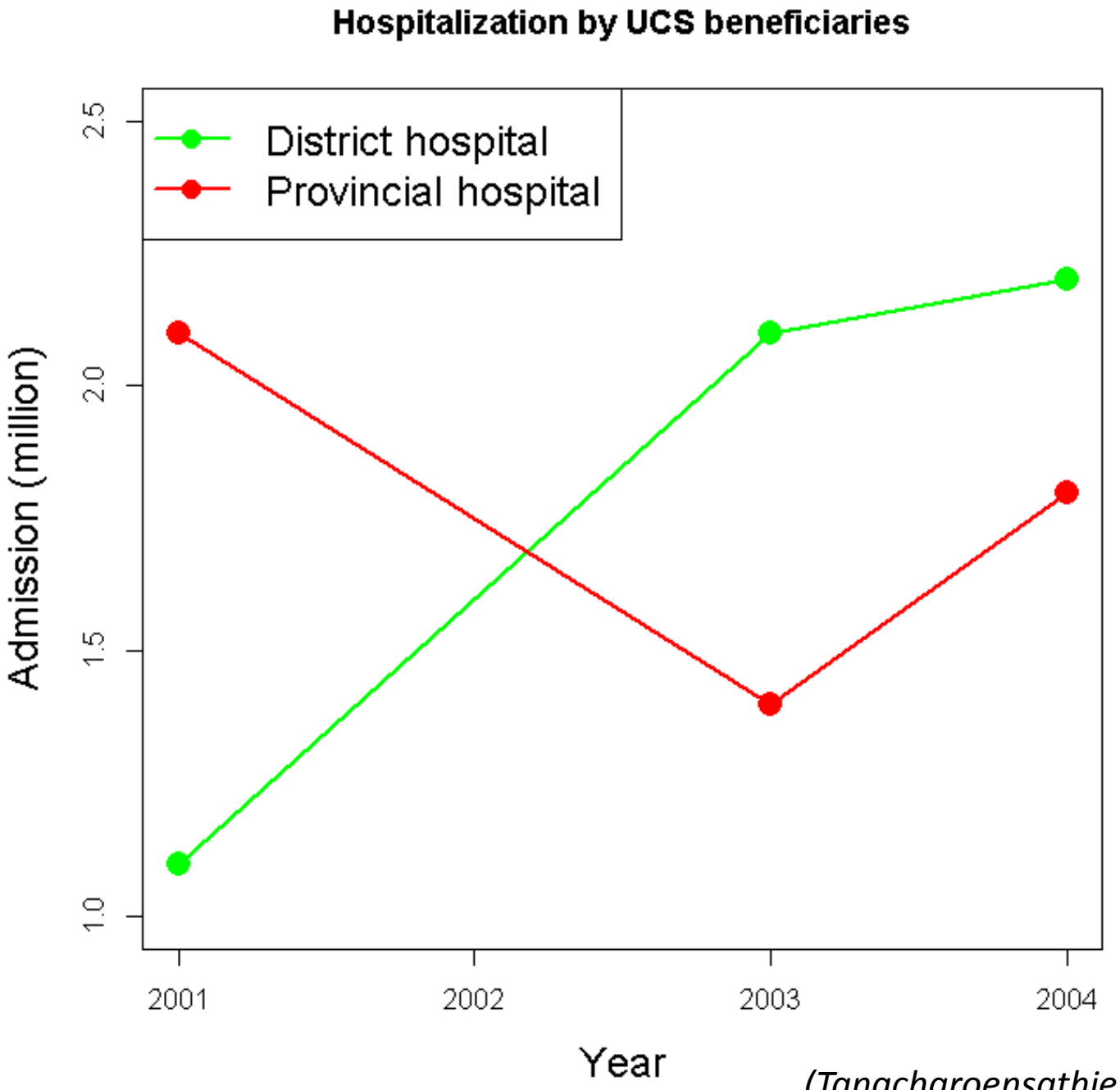
Equity in public subsidy

Concentration Index		
	2001	2003
Outpatient care		
- District hospital	NA	-0.295
- Provincial hospital	NA	-0.042
- University hospital	NA	0.339
Inpatient care		
- District hospital	-0.248	-0.285
- Provincial hospital	0.007	-0.126
- University hospital	0.007	-0.051

(Limwattananon et al., 2011)



(Tangcharoensathien et al., 2007)



(Tangcharoensathien et al., 2007)

Maternal and child health

Concentration Index (2005-6)	
Vaccine coverage	
- BCG	-0.0104
- MMR	-0.0041
- OPV	0.0002
Diarrhea	-0.0531*
Low birth weight	0.0367
Teenage pregnancy	-0.1073*
Family planning	-0.0005
Delivery by skilled HCW	0.0172*

(Limwattananon et al., 2010)

Conclusions

- With continuous pro-rural investment, Thailand has developed a strong DHS.
- UCS takes advantage of this by using DHS as primary contractor.
- This resulted in an increase utilization of DHS, an improve in equity in public subsidy, and equity in selected indices of maternal and child health.

Thank You!


STILL
ALICE

Japan - most aged country

Of 120 million

>65 y.o.	29 million
--Heathy	21
--MCI	4.1
--Dementia	4.4

Prevalence of Dementia

Age	%
60-64	1.0
65-69	1.7
70-74	2.9
74-79	5.5
80-84	10.3
85-89	18.5
90+	40

Cost for Dementia

Medical care	20%
Care for seniors	30%
Invisible cost	50%

4% of GDP

QOL of Caregivers


Ninchisho Supporter

Biomedical research

Clinical trials

Convenient stores; 7/11, AEON

Bank services

Community housing/architecture

Urban design and development

Various service industries

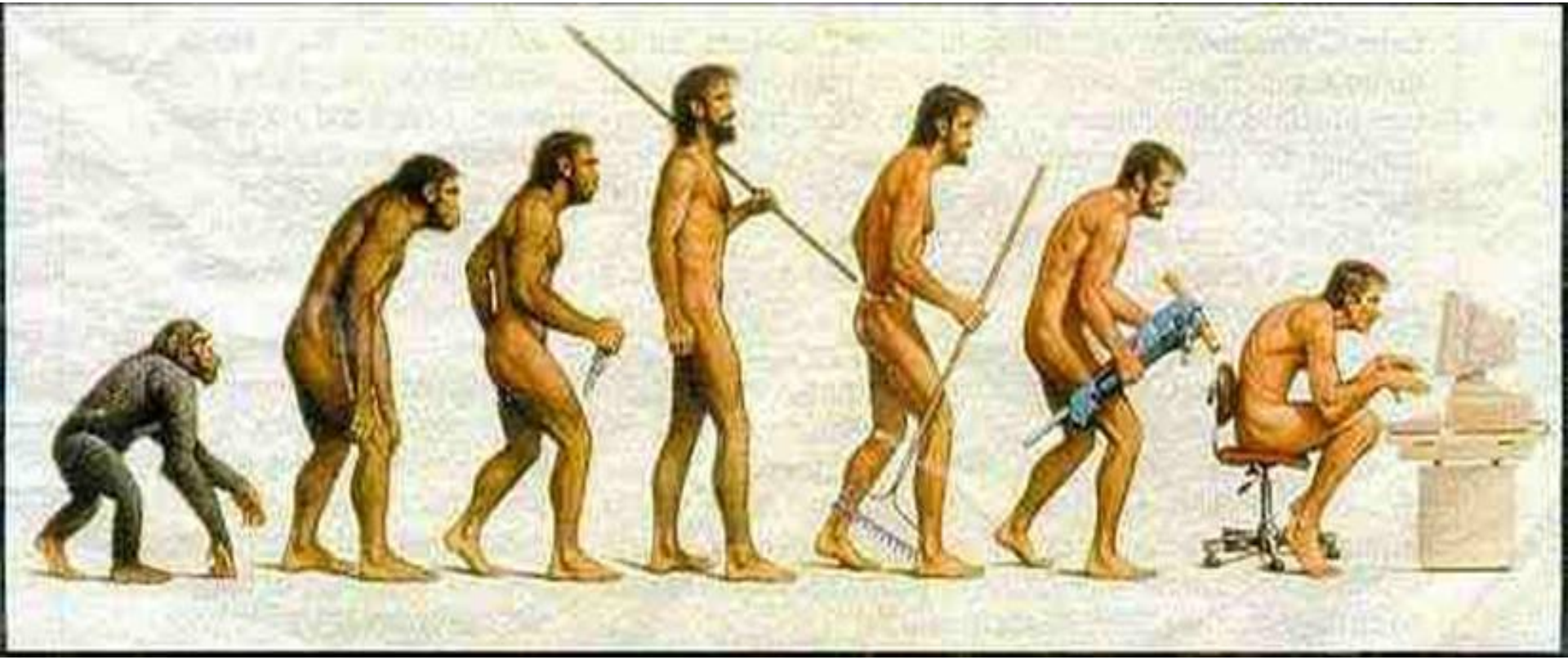
World Dementia Council; 1st in London, 2014.04.30

- goals set by 2025

Objectives

1. Financial structures
2. Research partnerships
3. Regulatory pathways
4. Single inventories of research activities
5. Best practice in the care
6. Raising public awareness

Alone Together



Digital Technology

1. Big Data

2. Social Robots; *Science*, September 2014 issue

3. Frontier of Neuroscience and Digital Technology

BIG DATA

Extrapolate vs existing hypotheses, eg,

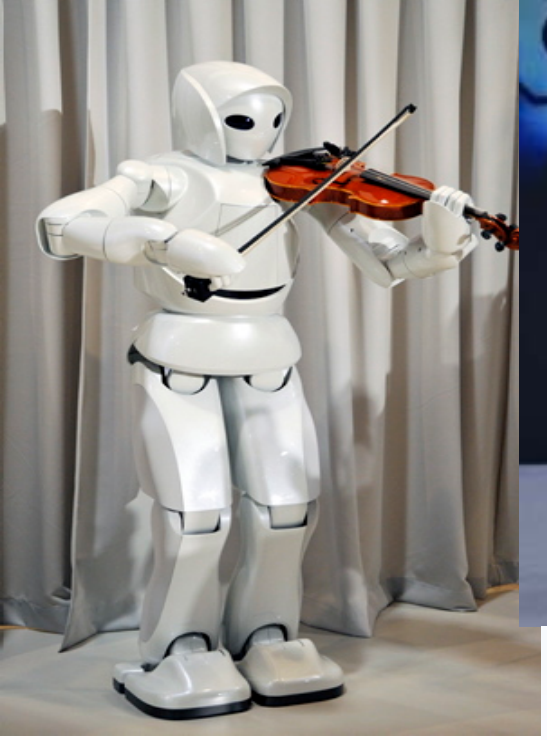
Age, family history, genetics
Education
Exercise and physical activity
Smoking
Sleep
Cognitive training
Diet, Diabetes, Obesity
Cholesterol, Hypertension

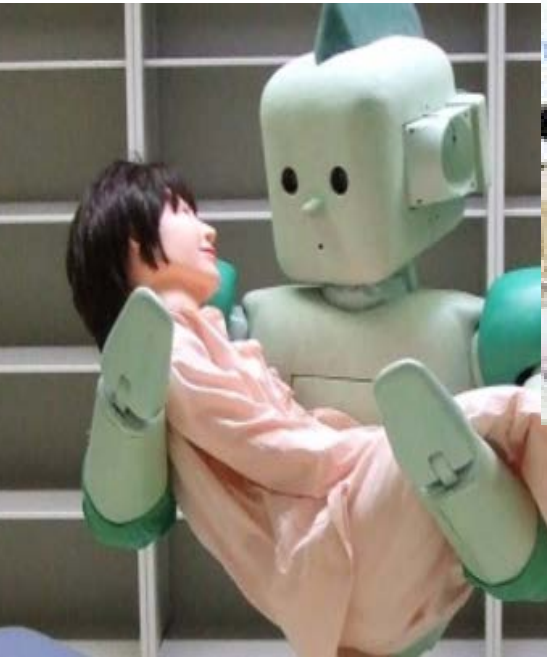
Digital Technology

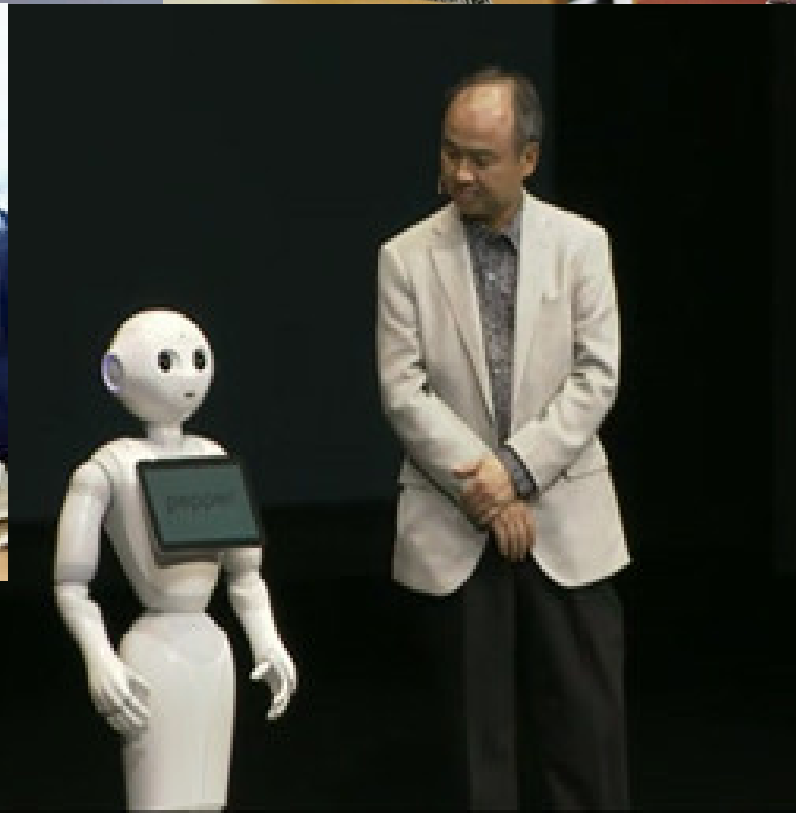
1. Big Data

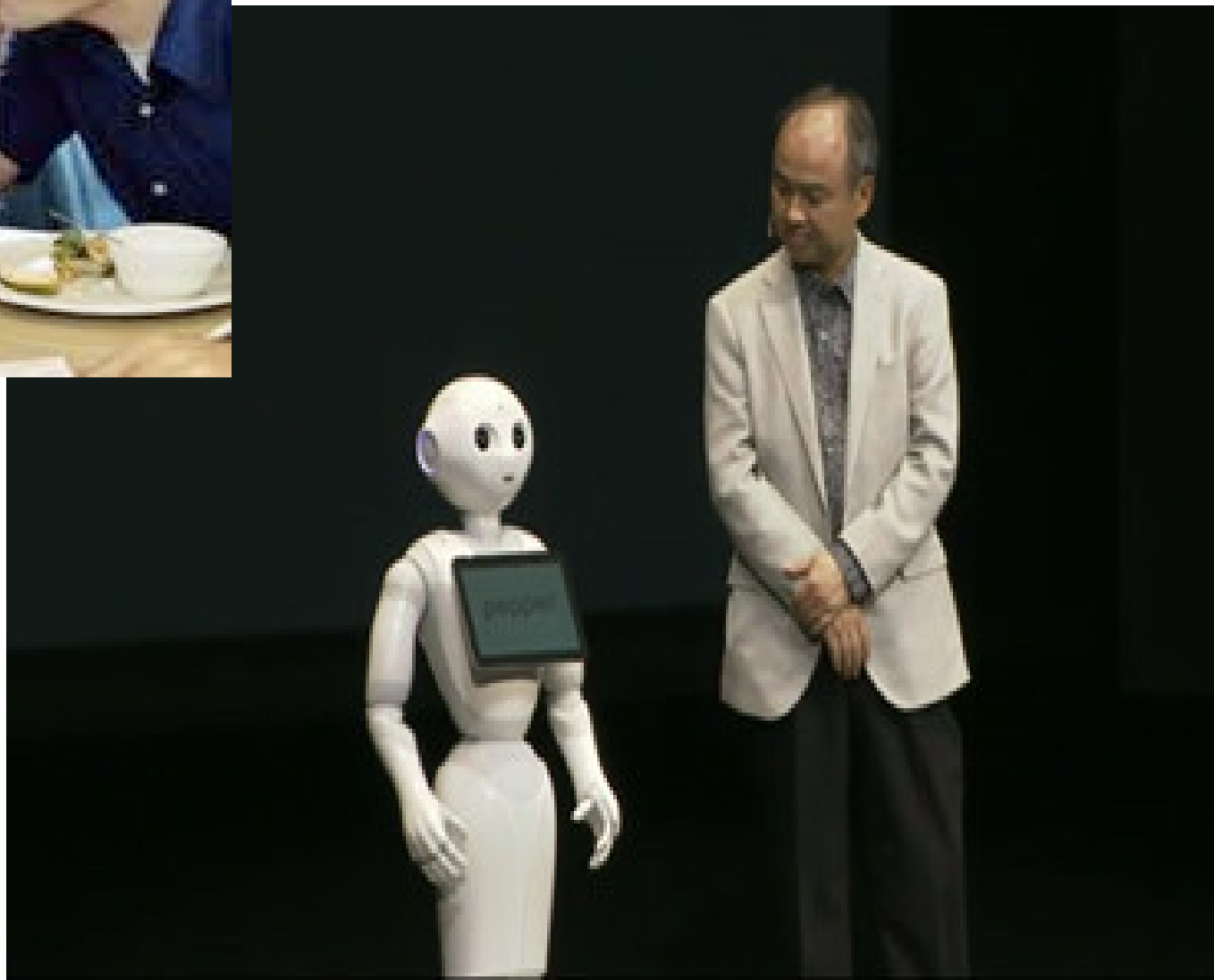
2. **Social Robots**; *Science*, September 2014

3. Frontier of Neuroscience and Digital Technology







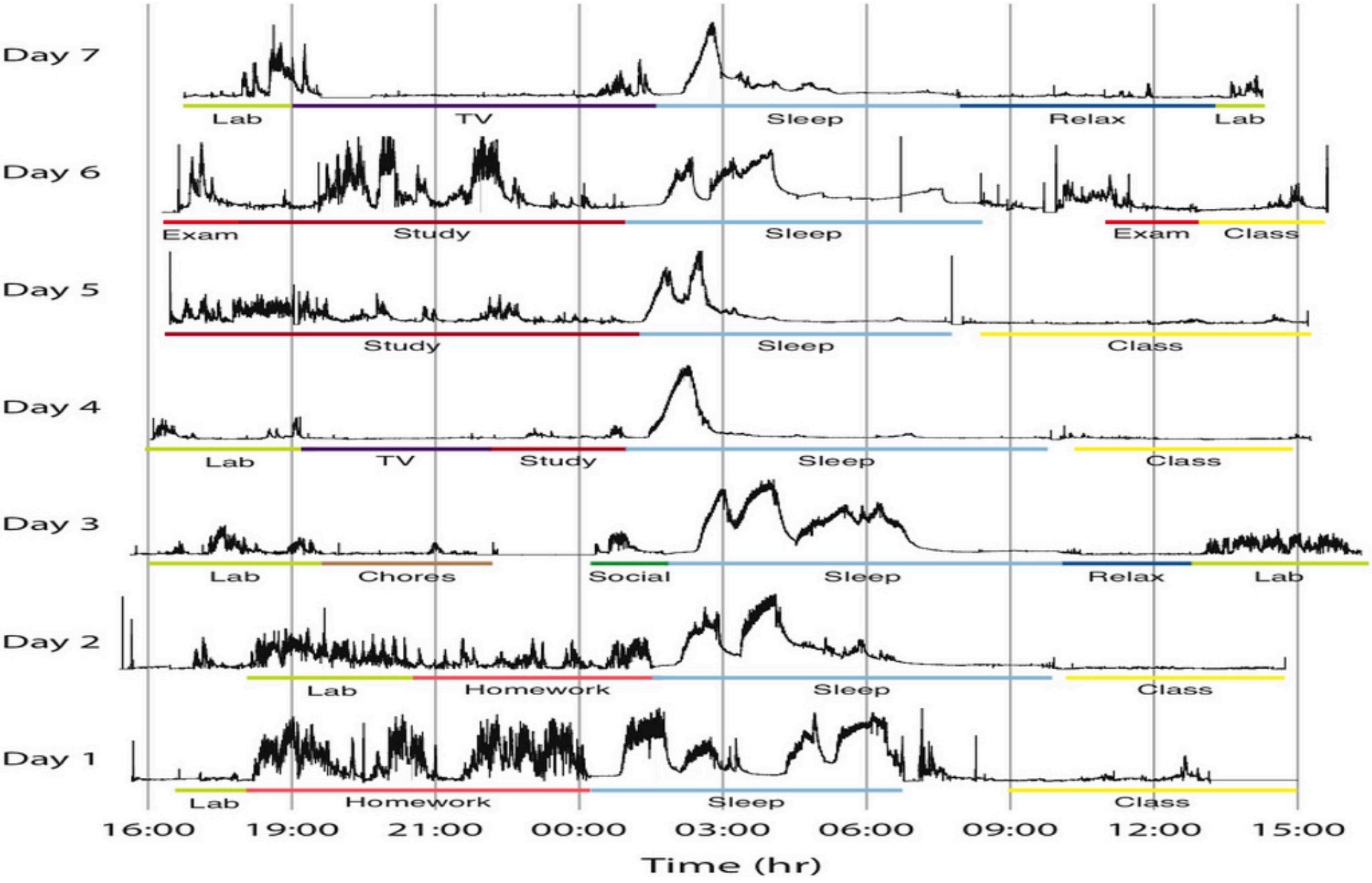


Digital Technology

1. Big Data

2. Social Robots; *Science*, September 2014 issue

3. **Frontier of Neuroscience and Digital Technology**


Day 7
Lab
TV
Sleep
Relax
Lab
Day 6
Exam
Study
Sleep
Exam
Class
Day 5
Study
Sleep
Class
Day 4
Lab
TV
Study
Sleep
Class
Day 3
Lab
Chores
Social
Sleep
Relax
Lab
Day 2
Lab
Homework
Sleep
Class
Day 1
Lab
Homework
Sleep
Class
16:00
19:00
21:00
00:00
03:00
06:00
09:00
12:00
15:00
Time (hr)

Big Data and Dementia

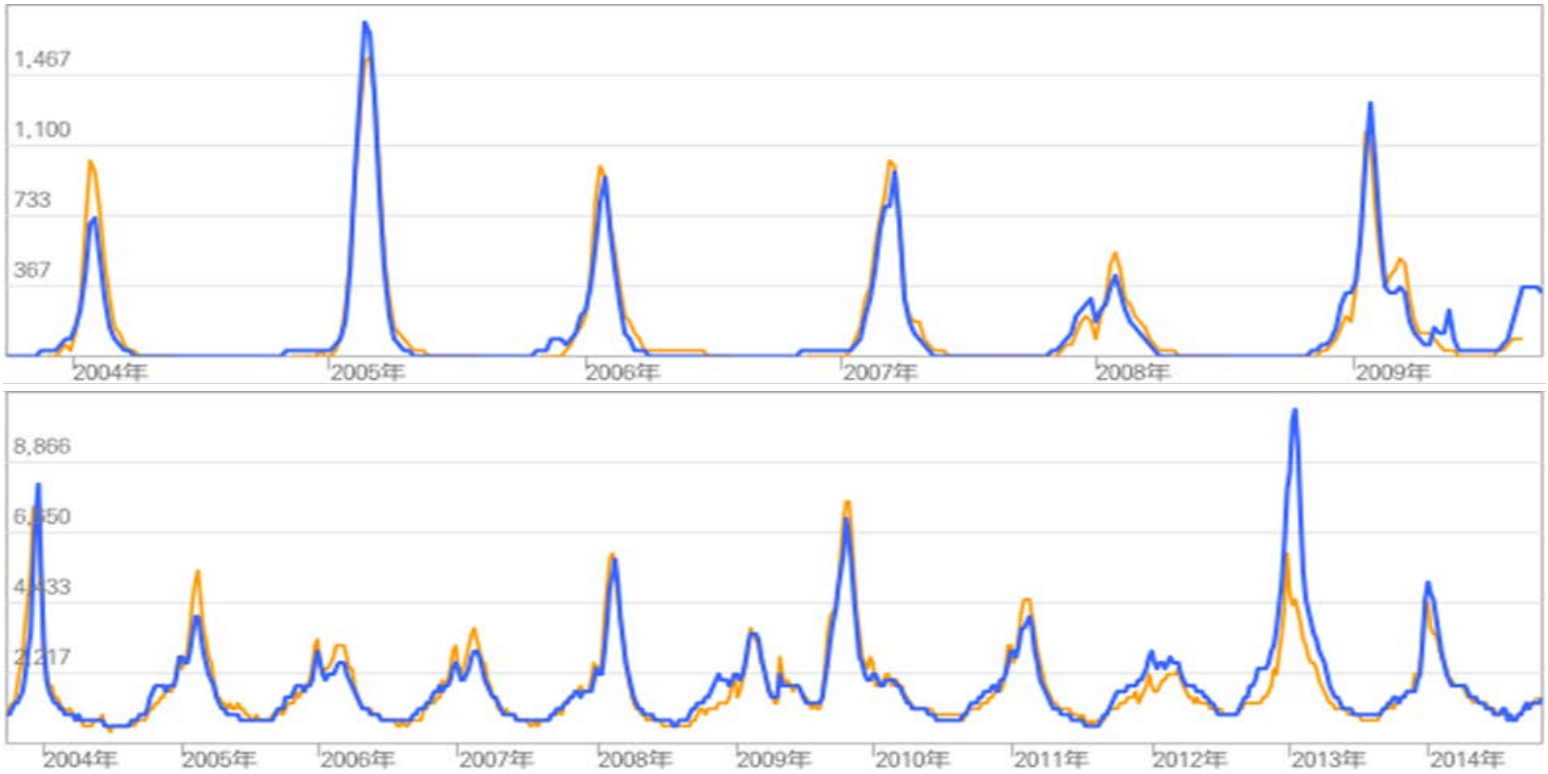
OECD 2014

Addressing Dementia

OECD 2015

Can Big Data Help?

Flu trends search by Google vs Official Data



（Upper Panel JAPAN, Lower Panel USA.　Blue Lines- Google Influ Trend ; Yellow lines US　Official Data　Source: http://www.google.org/flutrends/intl/ja/jp/#JP）

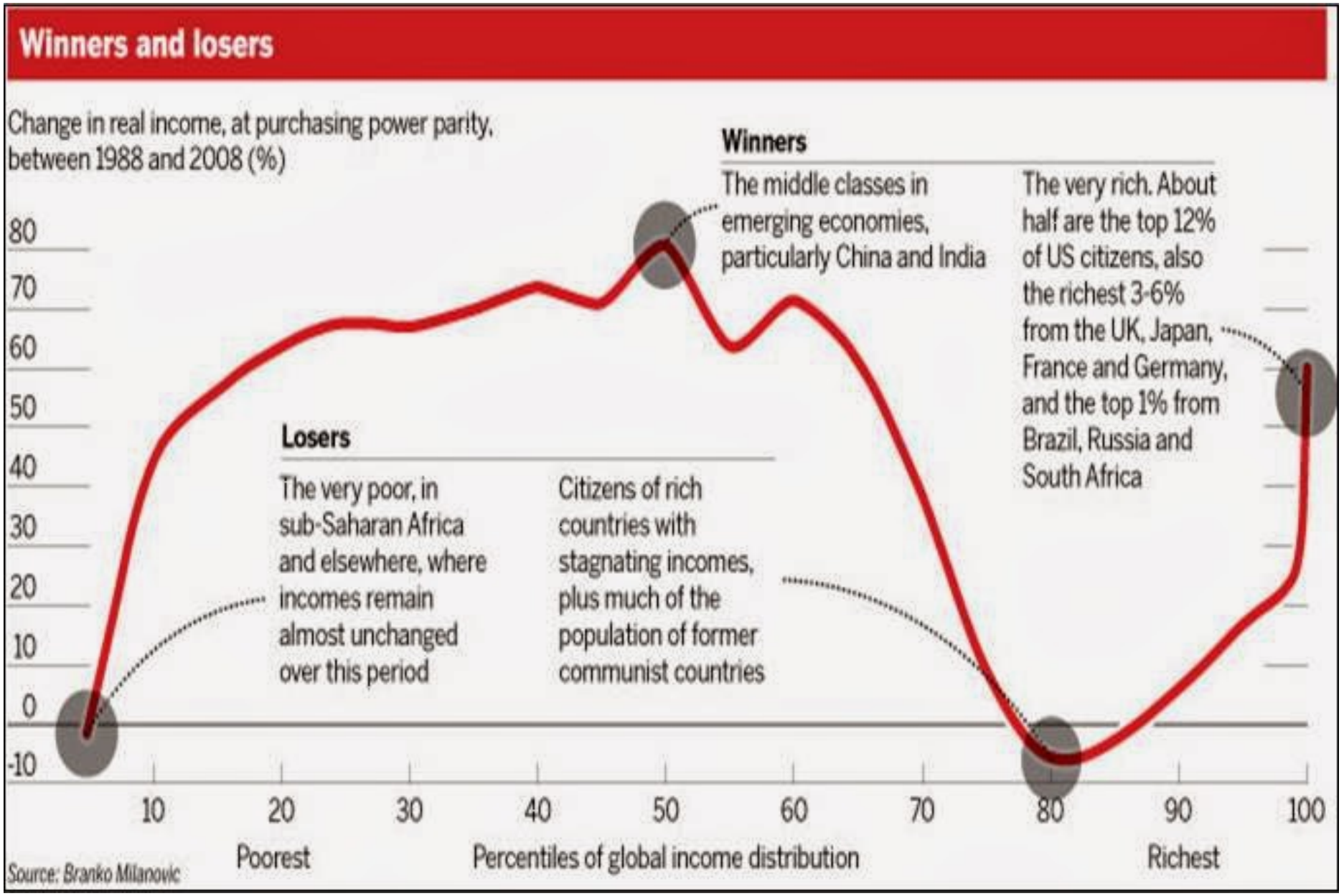
Drugs

1. cholinesterase inhibitors

Aricept -donepezil- and a few others

2. N-methyl D-aspartate (NMDA) antagonist

Namenda –memantine


Winners and losers
Change in real income, at purchasing power parity, between 1988 and 2008 (%)
Winners
The middle classes in emerging economies, particularly China and India
The very rich. About half are the top 12% of US citizens, also the richest 3-6% from the UK, Japan, France and Germany, and the top 1% from Brazil, Russia and South Africa
Losers
The very poor, in sub-Saharan Africa and elsewhere, where incomes remain almost unchanged over this period
Citizens of rich countries with stagnating incomes, plus much of the population of former communist countries
80
70
60
50
40
30
20
10
0
-10
10
20
30
40
50
60
70
80
90
100
Poorest
Percentiles of global income distribution
Richest
Source: Branko Milanovic

The Top 10 Trends for 2015 by WEF

1. Deepening income inequality
2. Persistent jobless growth
3. Lack of leadership
4. Rising geostrategic competition
5. Weakening of representative democracy
6. Rising pollution in the developing world
7. Increasing occurrence of severe weather events
8. Intensifying nationalism
9. Increasing water stress
10. Growing importance of health in the economy

The Effect of Work Hours on Obesity:

Evidence from a natural experiment in Korea

12 Aug. 2015

National University of Singapore

Kim, Erin Hyewon, Ahn, Seoyeon, Do, Youngkyung

Research Question

- How do work hours affect obesity?
  - Whether?
    - Work hours do affect obesity!
  - If so, how?
    - Work hours increase obesity:
    - 1 hour / week increases BMI by 0.124 ~ 0.171 kg/m^2

Why Important?

- Obesity among adults is prevalent and rapidly increasing globally in the last three decades (Ng et al. 2014)
  - Male: 29 → 37%
  - Female: 30 → 38%
- Obesity is expensive
  - 2.8% of global GDP ($2.0 trillion) (Dobbs et al 2014)
  - Approximately equal to $smoking (2.9%) and $armed violence (2.8%)

What has been know about how workweeks affect obesity

- Descriptive evidence
  - Positive impact of work hours on obesity
  - Diverse estimates
    - 1-hour increase in workweek → Body Mass Index (BMI; weight (kg) / height (m^2)) by
    - 0.018 (Courtemanche, 2009), 0.020 (Abramowitz, 2014), 0.166 (Ko et al., 2006), etc.
- No evidence from (natural) experiment
- Why problematic?
  - Omitted variables: drinking, loyalty, etc.
  - Reverse causality: obesity → work hours

Case Study in Korea Adds Evidence

- Rapid economic development
- Working late considered virtuous and loyal
- Reduction in legal workweek between 2004 and 2011
- Data for empirical analysis readily available

Natural Experiment *to examine the effect of work hours on workers' obesity*

Implications for other rapidly developing Asian countries with long work hours

Reduction in Legal Workweek in Korea

- 44 → 40 hours / week
- Establishments with 5+ wage workers
- Gradual introduction

Characteristics of establishment	When establishment became subject to 40-hour workweek
1,000+ employees OR public & financial sector	July 1, 2004
300 – 999	July 1, 2005
100 – 299	July 1, 2006
50 – 99	July 1, 2007
20 – 49	July 1, 2008
5 – 19	July 1, 2011

Data and Analysis Sample

- Korea Labor and Income Panel Study
  - Representative annual survey since 1998
- 2005, 2007 and 2008 waves
- Male aged 19 to 65 in workplaces with 5+ employees in 2005
  - Full-time (35+ hours / week) wage workers
  - Participants in 2005 & at least one later wave

Data and Analysis Sample (2)

Characteristics of establishment	When establishment became subject to 40-hour workweek	Analysis sample in 2005 (%)
1,000+ employees, public & fin'l sector	July 1, 2004	30.8
300 – 999	July 1, 2005	8.4
100 – 299	July 1, 2006	13.3
50 – 99	July 1, 2007	10.3
20 – 49	July 1, 2008	14.1
5 – 19	July 1, 2011	23.1
Total		100.0 (N = 1,314)

Research Design

- Dependent Variables
  - Body mass index (BMI) = weight (kg) / height (m^2)
  - Obesity = BMI > 25 (Asian adults)
- Endogenous X
  - Actual workweeks (hours)
- Instrumental variable(s)
  - 1 = 40-hour workweek at t, 0 otherwise
  - 1 = 40-hour workweek at t-1, 0 otherwise
- Control variables
  - Age, marital status, education, income, char. of work (manual work, shift work, public sector, finance sector, establishment size), year dummy variables, and/or health/risk behavior

Effect of Workweeks on BMI

	Pooled OLS		IV -2SLS			
	w/o behavior	w/ behavior	w/o behavior	w/ behavior	w/o behavior	w/ behavior
Instrumental variable at t	**-**	**-**	**Yes**	**Yes**	**Yes**	**Yes**
Instrumental variable at t-1	**-**	**-**	**No**	**No**	**Yes**	**Yes**
Actual workweek	**0.014****	**0.015****	**0.125†**	**0.168†**	**0.124***	**0.171***
	(0.005)	**(0.005)**	**(0.068)**	**(0.097)**	**(0.059)**	**(0.085)**
Number of observations	**3,615**	**3,608**	**3,615**	**3,608**	**3,280**	**3,279**
First-stage F statistics	**-**	**-**	**28.5**	**22.3**	**25.3**	**20.0**

- Aforementioned covariates are controlled but not shown
- † p < .10; * p < .05; ** p < .01

Effect of Workweeks on Obesity

	Pooled probit		IV -probit			
	w/o behavior	w/ behavior	w/o behavior	w/ behavior	w/o behavior	w/ behavior
Instrumental variable at t	**-**	**-**	**Yes**	**Yes**	**Yes**	**Yes**
Instrumental variable at t-1	**-**	**-**	**No**	**No**	**Yes**	**Yes**
Actual workweek	**0.007****	**0.007****	**0.065****	**0.074****	**0.064****	**0.074****
	(0.003)	**(0.003)**	**(0.018)**	**(0.017)**	**(0.016)**	**(0.015)**
Number of observations	**3,615**	**3,608**	**3,615**	**3,608**	**3,280**	**3,279**

- Aforementioned covariates are controlled but not shown
- † p < .10; * p < .05; ** p < .01

Discussion

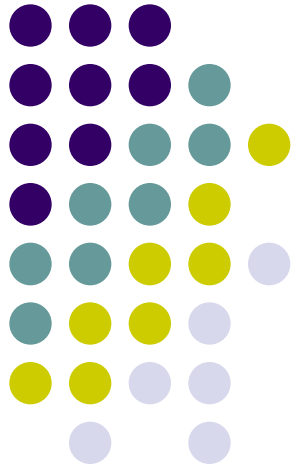
- Workweeks do affect obesity
  - 1 hour / week raises BMI by 0.124~0.171 kg/m^2
  - The law lowered BMI by 0.20 ~ 0.32 Std. Dev.
- Underestimation of the effect in previous studies
- Possible mechanism
  - Health / risky behavior (exercise, smoking, drinking, etc.), eating habits, sleeping time, and so on
- Caveats
  - Male wage workers only
  - Self-reported weight, height, and workweeks
- Unexpected health impact of long work hours associated with rapid economic development

The Provision of Mental Health Services: The Case of Indonesia

Prof. Byron J. Good

Department of Global Health and Social Medicine, Harvard Medical School

Department of Anthropology, Harvard University



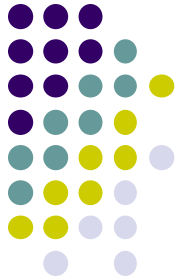
Panel: Health Challenges of Epidemiologic Transition

Asia Public Policy Forum 2015: The Financing and Delivery of Public Health Services in Asia

Jakarta

August 12-13, 2015

Mental Health Services, Policy, Financing in Indonesia



I. Introduction: Mental Health and the 'Epidemiologic Transition'

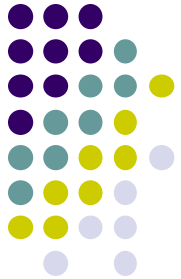
II. Mental Health Services in Indonesia

III. Post-Disaster and Post-Conflict Services: New Models for Indonesia

IV. Policy and Services Related to Severe Mental Illness

Reflections

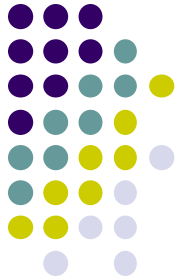
I. Introduction: Mental Health and the 'Epidemiologic Transition'



The 'health transition' narrative

- Infectious → Chronic disease
  - Rise of new infectious diseases
  - Under estimate of chronic illnesses in previous health policy ('appropriate technology,' population focus)
- Critical factor in low/middle income societies in Asia: the success of primary care programs for lowering infant, child, maternal mortality
  - The challenge of transitioning primary care to chronic illnesses
  - HIV: treating complex health problems in low resource settings

I. Introduction: Mental health and the health transition



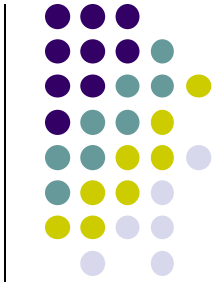
The place of mental health problems in this model

- Problematic
  - Diverse conditions – psychoses, depression, trauma, drug use – with different patterns

WHO: the mhGAP narrative

- Mental Health problems – 12-16% of GBD
- MH services – <1% of health budget
- Constant challenge to give mh priority

II. Mental Health Services in Indonesia



The larger Asia perspective

- East Asia
  - Devastating stigma
  - Hospital based – e.g., the Japanese case…
  - Increasing investment in mental health care
  - China: world's largest mental health reform
- Southeast Asia
  - History of colonial hospitals
  - Extremely low resources
  - Fits pattern of low investment

Resources: Psychiatrists / 100,000

	2005
Australia	14
United States of America	13.7
Japan	9.4
New Zealand	6.6
Taiwan	4.1
Singapore	2.3
Hong Kong	2
China	1.3
Malaysia	0.6
Philippines	0.4
Viet Nam	0.32
Indonesia	0.21
Papua New Guinea	0.09

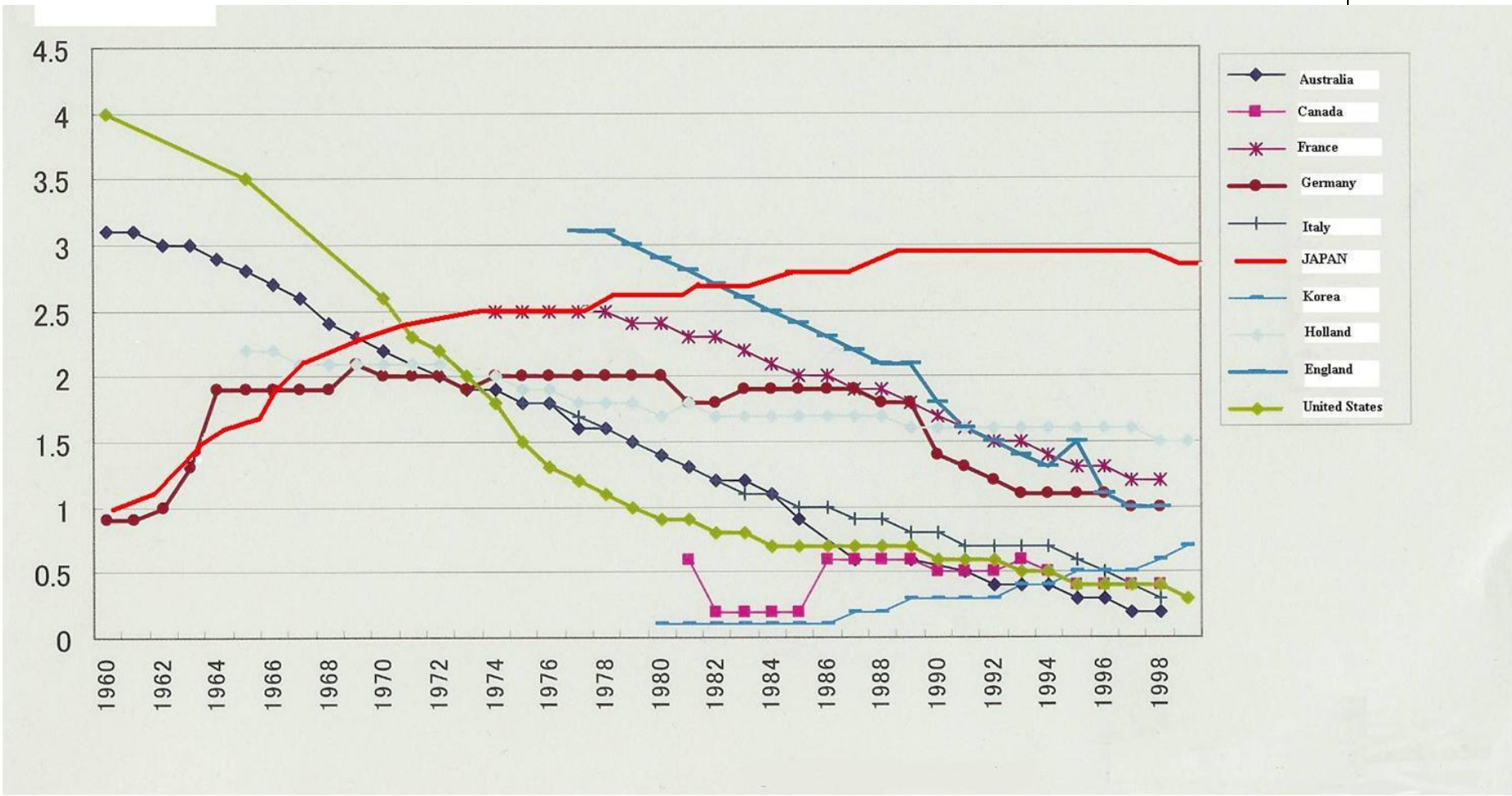
Resources:
Psychiatric beds total / 10,000

	2005
Japan	28.4
Korea	13.8
Taiwan	8.2
United States of America	7.7
Hong Kong	7
Singapore	6.1
Australia	3.9
New Zealand	3.8
Malaysia	2.7
China	1.06
Philippines	0.9
Viet Nam	0.63
Indonesia	0.4
Papua New Guinea	0.24

Number of Psychiatric Beds:

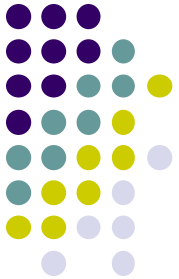
International Comparison

#Beds per 1000 people



MJDV Good

Mental health services in Indonesia: General pattern



- Almost exclusive focus on severe mental illness – and on hospital services
- Extremely limited resources
- Mixed public/private model
- Mixed financing model
- MH low priority
- Critical role of decentralization
- Largely dependent on family care, often w devastating financial effects

III. Post-Disaster and Post-Conflict Services: New Models for Indonesia

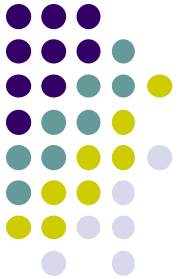
Critical role of disasters and post-conflict responses in stimulating new models of mental health care

- The importance of Aceh
- Role of emergence of ‘trauma’ discourse
  - Both positive and negative effects
  - Normalization of mental health problems
  - Efforts to build sustainable, more general models for mental health care

Summary Table on WHO Projections and Recommended Response

	BEFORE DISASTER: 12-month prevalence	AFTER DISASTER: 12-month prevalence	Recommended aid response
Severe disorder (e.g., psychosis, severe depression, severely disabling form of anxiety disorder)	2-3%	3-4%	Mental health care (health sector)
Mild or moderate mental disorder (e.g., mild and moderate forms of depression and anxiety disorders)	10%	20% (reduces to 15% with natural recovery)	Mental health care (health sector) + social and basic psychological support interventions in community (various sectors)
Moderate or severe psychological distress (no disorder)	No estimate	30-50% (reduces to unknown extent with natural recovery)	Social and basic psychological support interventions in community (various sectors)
Mild psychological distress, which resolves over time	No estimate	20-40%	No response

Aceh as a site for developing new models of mental health care



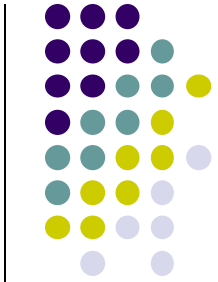
- The language of ‘trauma’ and ‘trauma healing’
- Focus on more common mental health problems
- Development of community-based models
  - Rooted in primary care, with focus on nurses
- Our experience with IOM

Table 2a: Past Traumatic Events Experienced by Men and Women, 14 districts

Past Traumatic Events Experienced	Men n=1,006	Women n=966
Experienced Combat	77%	72%
Forced to Flee Burning Buildings	37%	33%
Forced to Flee Danger	47%	44%
Forced to Hide	14%	9%
Beating to the body	44%	12%
Attacked with gun or Knife	24%	10%
Tortured	19%	6%
Witnessed Physical Punishment	49%	38%

Past Traumatic Events Experienced	Men n=1,006	Women n=966
Humiliated or shamed in public	16%	8%
Rape or sexual assault	4%	5.5%
Head Injuries	32%	8%
Destruction of Property	43%	36%
Spouse Killed	1%	5%
Child Killed	4%	4%
Friend or Family Killed	43%	33%
Forced to Give Food/ Shelter	21%	17%
Forced to Search for GAM in	33%	19%

Time 1: Patient Clinical Diagnoses by Treatment Team



Diagnoses	Total patient sample n=1137	% of patient sample suffering disorder
Depression	65	6%
General Anxiety Disorder	480	42%
Depression and Anxiety	177	16%
PTSD	366	32%
Somatoform, Insomnia	159	14%
Organic disorders	16	1%
Psychotic disorder	24	2%

Since you received treatment by IOM, have your mental health symptoms (from stress or trauma) become worse, stayed the same, gotten better?

		Valid Percent	% worse, same, better
Much worse	-	-	1%
Somewhat worse	3	.3%	
A little worse	9	.8%	
The same	173	16%	16%
A little better	391	36%	83%
Somewhat better	410	38%	
Much better	91	8%	
Total	1077	100%	

Q: Since you began treatment with IOM, has your ability to work gotten worse, stayed the same, or gotten better?

	N =	Valid Percent	% worse, same, better
Much worse	2	.2%	4%
Somewhat worse	5	.5%	
A little worse	30	3%	
The same	317	29%	29%
A little better	345	32%	67%
Somewhat better	337	31%	
Much better	41	4%	
Total	1077	100%	100%

Ability to Work

Mean number of hours patients say they could work per week

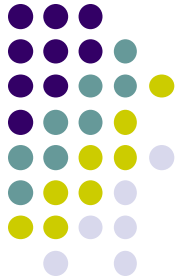
Before Sick:	28 hours
When Sick:	10 hours
At Time 3:	41 hours

Change in Family Burden

"… needs to be cared for by a family member?" If yes, "how many hours per week?"

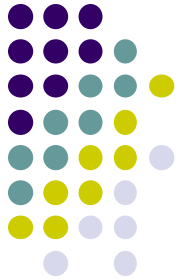
	Before treatment	*At Time 3*
Needs care	**18%**	**2.6%**
Average Hrs/wk (median)	**14.4 hrs (5 hrs)**	**27.7 hrs (17 hrs)**

What happened to the “Aceh model”?



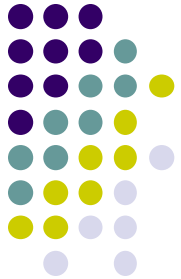
- New resources, a very different way of thinking about community-based care
- CMHN model widely recognized
- Limited support after the international organizations left
- Continued focus on severe mental illness
- Limited implementation nationwide
- Stimulated many new, innovative local efforts
- Far broader view of ‘mental health problems’

IV. Policy and Services Related to Severe Mental Illness



- Enormous burden
  - Ca. 0.5% point prevalence for schizophrenia
- Continued lack of priority, investment in mental health reform
- The ‘bebas pasung’ (unlocking) case
  - Evaluation of bebas pasung in absence of broad reform
- Problems of mh services in national health insurance

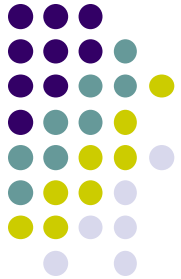
IV. Policy and Services Related to Severe Mental Illness



But positive developments

- Bebas pasung
- Passage of national mental health law
- Far broader acceptance of community-based care, rehabilitation
- CMHN, psychologists, mental health cadre in villages
- Developing a ‘Jogya model’

Final Reflections…



Thank you…

MINISTRY OF FINANCE INDONESIA

Indonesia's National Health Care

Presented by:

Bambang P.S. Brodjonegoro

Minister of Finance Indonesia

General

Regulations view on national health care...

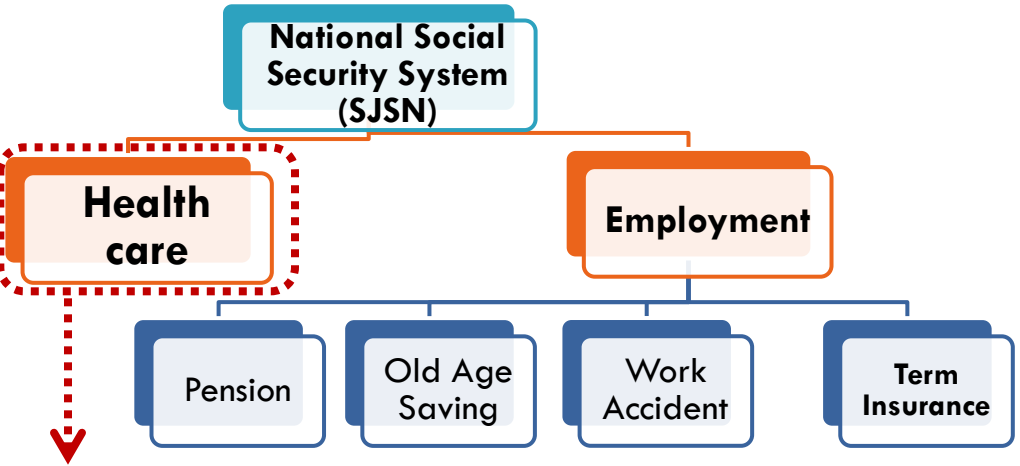
Law 40/2004

- Introduced a national social security system, popularly abbreviated and known as **SJSN**
- **Comprises of 5 programs**, i.e. health, pension, old-age savings, work accident, and term insurance
  - Expected to meet the basic needs of decent life for participants
- Represents a constitutional mandate for providing **assurance protection and social welfare** to all people of Indonesia
- **Health program is mandatory** for all inhabitants, including foreigners living in Indonesia for more than 180 days

Law 24/2011

- Two agencies were formed to administer the programs: **BPJS Health** and **BPJS Employment**
- BPJS Health administers **health insurance**
- BPJS Employment administers **pension, old-age savings, work accident,** and **term insurance**
- Both BPJS have been **transformed from a state owned insurance company** that ran similar programs
- **Trustee concept** applies and defined at length in the Law

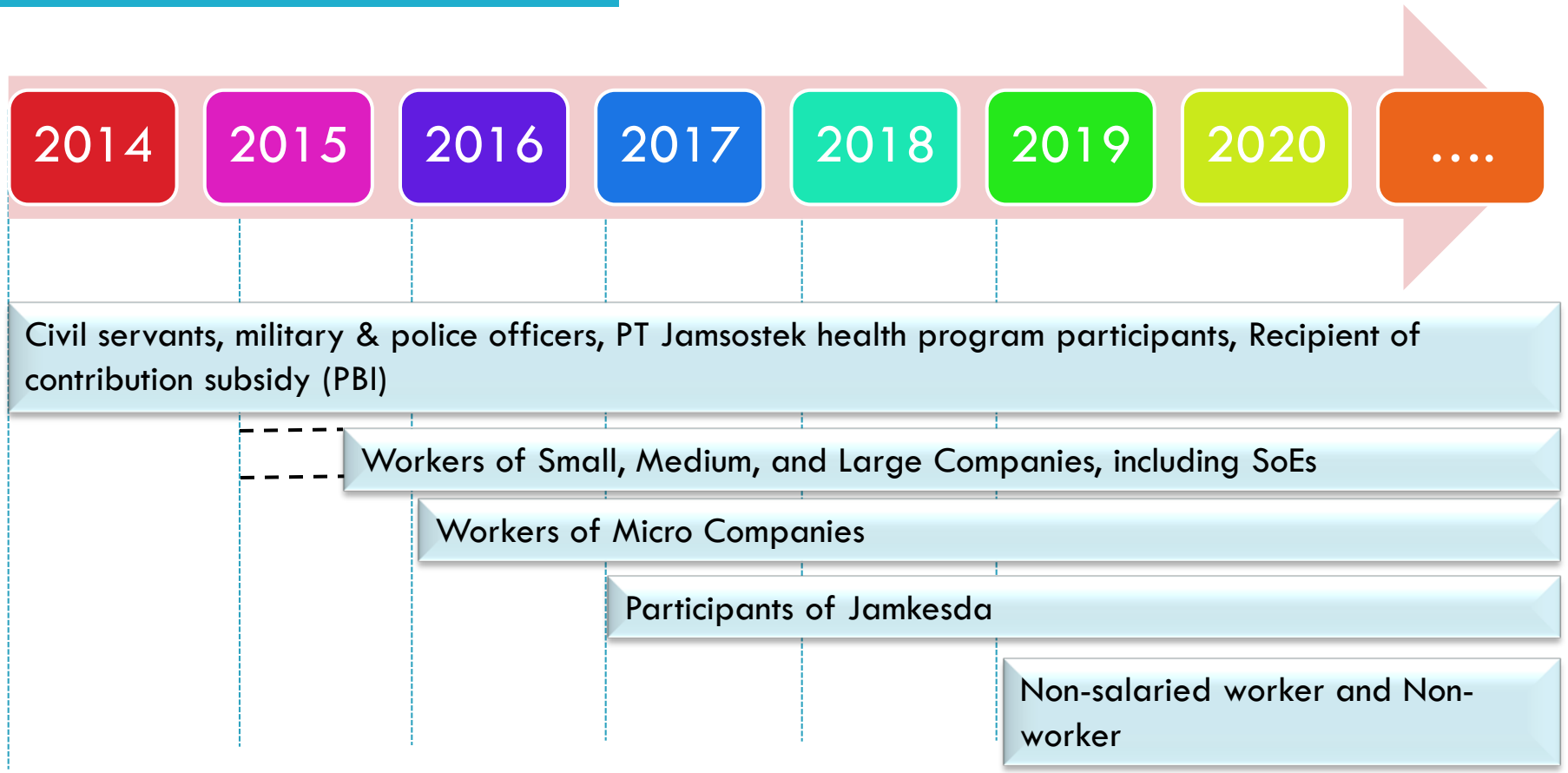
National Social Security System (SJSN)



Group	Member
The Poor subsidized by Central Government	86,400,000
The Poor subsidized by Local Government*	9,713,095
Civil Servant, police, and armed forces	19,331,498
Formal sector	14,336,606
Informal	11,321,095
Total	141,102,294

- SJSN Health care, known as JKN, has been launched on January 1st 2014
  - Implemented by BPJS Health
- BPJS Health is not one more insurance company or another financial institution
- JKN is not selling insurance
  - Its mandate is to provide social protection (comprehensive health care services)
  - Contrary to many commercial insurance, it is not limited by maximum annual or lifetime expenses
  - Families are protected against catastrophic expenses

Participation
(Roadmap)



Current Conditions

Participation Level and Financial Conditions

(Fact in 2014)

Source: *BPJS Health, 2014*

Participation Level

No	Description	Population	Participant	
			Target	realized
1	PBI	86.400.000	86.400.000	86.400.000
2	Salaried Worker	93.706.117	27.299.438	24.327.149
3	Non Salaried Worker	46.659.284	598.487	9.052.859
4	Non Worker	6.249.281	4.429.557	4.876.416
5	Jamkesda	19.150.118	2.872.518	8.767.229
	Total	252.164.800	121.600.000	133.423.653

Financial Condition

No	Description	Budget	Realized*	Note
1	Contribution Revenue	39,95	41	IDR Trillion
2	Benefit Expenditure	40,8	42,6	IDR Trillion
3	Claim Ratio	102,20%	103,90%	Percentage
4	Asset, Jan 1, 2014	5,67	6,08	IDR Trillion
5	Asset, Dec 31, 2014	3,5	4,5	IDR Trillion
6	Net Asset. Dec 31, 2014	-2,17	-2,97	IDR Trillion

**based on Unaudited Report*

- At the end of 2014, about 53% of population was covered by the program
- It is expected that by the end of 2015 the coverage will have reached 170 million or 66,5% of population assuming no further improvement of the coverage for non-salaried workers.
- Although the revenues are above target as a consequence of high participation, the benefits expenditures were also above target both relatively and in nominal terms. And so the deficit is marginally higher than expected. However these results are still very preliminary and not audited.

Challenges in Implementing Health Program...

Membership and premium payment

1. **Insurance effect;**
   Increasing number of informal sector, **mostly the sick ones.**
2. **Enrolling the healthy informal sector;**
3. **Improve collectability ratio of premium collection**
   Provide various method of payment, including electronic payment.

1

Managed Care System

1. Coordination between public and private recourses (**coordination of benefit**)
2. **Service quality of health care provider**
   a. Quality of providers vary
   b. Access to health care in remote area
3. **Best practices on procurement and payment systems** (fee-for-services/capitation/salary)
4. **Inequality in utilization**
   High utilization in urban area

2

Deficit in Health Fund (Contribution < Benefit payment)

Affect the effectivity and sustainability of the program

Revised State Budget 2015
Financing BPJS Rp3,46T
&
Financing Reserve Health Fund (Rp1,5T)

3

Cost Containment

1. How to manage **adverse selection**
2. Developing a robust referral system (**Primary care as gatekeeper**)
3. Fraud prevention
4. Claim verification

a. Lack of qualified claim verificator

b. Exposed to fraud
5. Prevention and health promotion

Regulation

1. **Grace period** (3 month for formal & 6 month for informal)
2. Calculation of **technical reserve**
3. Maximum wage

4

Data Accuracy

1. The data of the poor is set on 2011; need to be **updated to improve the accuracy.**
2. Need of a good **database of supply side,** health care providers, doctors, and medicines.

5

Analysis on Current Conditions

Main causes

Adverse selection in non-salaried group

1. Most participants in this group were already sick
2. Do not represent a fair sample of the non-salaried population group

The other categories claim ratio was below 100%

Insurance effect

Especially among non-salaried workers and non-workers

Mismatch in setting contributions and benefits

(fee for service vs prospective payment-INA CBGs)

Moral hazard

1. Sign in to the program only when needs health services
2. Pay no contributions after gets well

Mischief

1. Unbundling and/or up coding
2. Unnecessary reference

Possible Solutions

Review contributions

- Percentage of wages/salaries
- Nominal contributions for non-salaried workers and non-workers

Attract more healthy people to participate

- Market the program as a social redistribution tool
- Expand service provider list and improve quality
- Encourage private insurance to "sell" the program

Improve program design

- No grace period
- Penalty for reinstatement: pay the unpaid or co-sharing the cost

Audit on claims

Government support, including provisional bail-out

Cooperate with tax authority and/or utility company to collect contributions

New Approach...

managed care, single payer, single purchaser UHC program

JKN program is a public program administered by BPJS Health that is a single payer and single purchaser

Allows for designing an efficient system for the procurement services and the remuneration of providers

JKN is operated on a managed care basis

Primary care acts as a gate keeper	International experience shows that the performance of a scheme is greatly enhanced by putting more emphasis on primary care	The approach recommended by WHO An out-patient visit is far less expensive than an in-patient visit	Primary care will generally be accessible closer to home

The first year experience has exposed some weaknesses and difficulties

Coordination of Benefits (CoB)	Capitation payment system does not recognize regional variations	The coverage in remote area is very low	Primary care doctor is not properly distributed INA-CBGs is not entirely satisfactory	Overcompensate some interventions and undercompensate others	Public providers and private providers receive the same amount

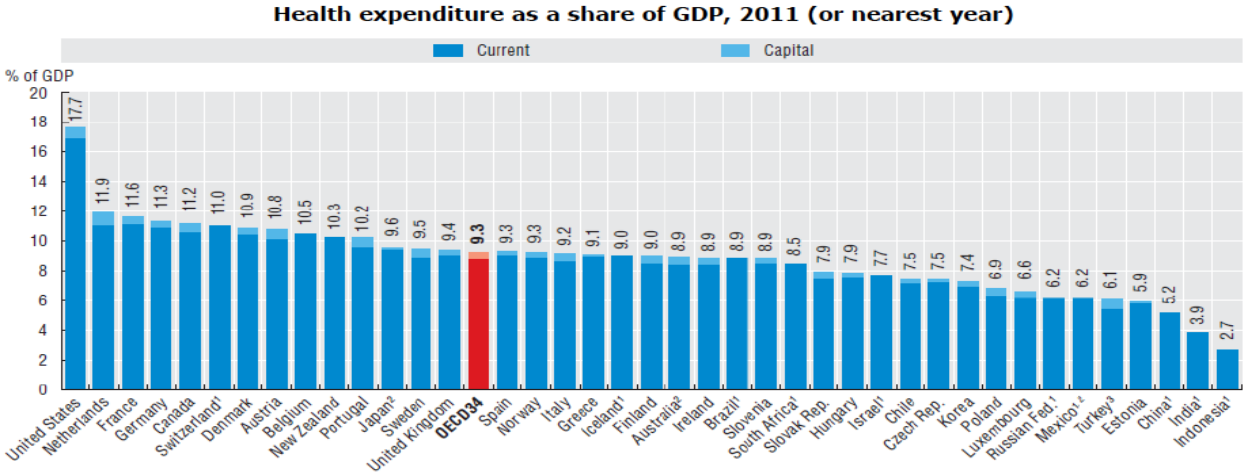
In the national interest, need to make optimal use of all available resources whether private or public

The coverage has increased and will further increase the demand for services	Need to increase the number and the quality of Puskesmas including the addition of mobile Puskesmas	Additional capacity at the secondary and tertiary care levels • Adding beds and hospitals	Need to engage more provider

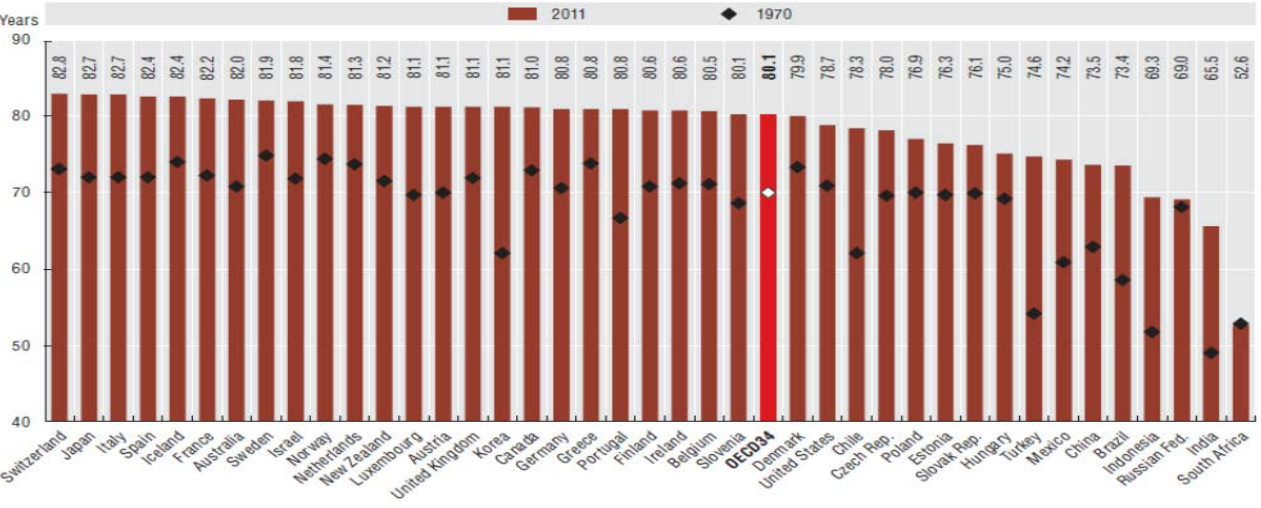
Troubling Paradox...

"There is a weak correlation between the amount spend on health and the health outcomes..."
(life expectancy as a proxy)

Source: OECD, 2013



The life expectancy



- 24 countries enjoy a life expectancy (LE) higher than the average (80.1) years.14 countries contribute a percentage of GDP higher than the average
- The differences in LE above average are small even though the differences in expenditure percentages are larger
- US overspends any other country by a large margin but has a LE below the average (The delivery structure and Obamacare is attempt to fix it)
- Indonesia, despite having the lowest spending has higher LE than Russia, India, and South Africa

Troubling Paradox... (cont'd)

- Ranking by expenditure do not match the ranking by LE even for countries that have similar standard of living
- Part of the difference can probably be attributed to different national strategy
  - Allocation of the health budget in priority to public health initiatives such as drinking water, smoking or life style rather than health care
- The statistics shown by the slides do not reflect other differences in outcome such as accessibility
  - Canada spends more on health than France but has lower LE and longer waiting time for access to care
  - Better accessibility has been attributed to a better coordination between public and private providers in France (known as SAMU), patients treated locally rather than at the hospital
- Lesson learned from international experience: there are many ways to spend a health budget, some more efficient than others
- Indonesia is at the early stage of implementation new system
- The initial decisions as how to spend the money will have lasting effects
- Our fiscal resources are limited
  - There are huge needs all across Indonesia competing for money
- It is the responsibility of MoF to ensure the fiscal resources spent wisely, efficiently, and in line with objectives

Commitment to Support the Program

Ministry of Finance roles in the SJSN health...

- The mandate as Minister of Finance:
  - As an employer, GoI must contribute on behalf of its own employees
  - Special assistance to the poor (and near poor)
    - Before Jan 2014, GoI provided them through Jamkesmas
      - Since 2007 to 2012, contribution was Rp6000/capita/month covered 76 million persons
      - In 2013, the contribution was increased to Rp8000/capita/month covered 86.4 million persons
    - In 2014, under JKN, the contribution was increased substantially to Rp19,225/capita/month covered 86.4 million persons
    - In 2015, the same contribution and covered 88.2 million persons

- Health indeed is a high priority for the Ministry of Finance
  - Although it is also competing with other priorities such as education and infrastructure
- Healthy population has a better chance to enjoy economic progress (Lancet, 2013)
  - Reduction in mortality accounted for 11% of the growth in low and middle income countries
  - Between 2000 and 2011, it is estimated that 24% of the growth in "full income", in low and middle income countries, resulted from the value of years of life gained
- In 2015, 3.9% of the government budget is allocated to health
- In 2016, 5% of the government buget will be allocated to health

Budget Allocation for Health Program

2014

1. Subsidy for the poor PBI **Rp19,9 T**
2. GoI's contribution as employer for civil servants, polices, and armed forces **Rp4,9T**

2015

1. Subsidy for the poor PBI **Rp19,9 T**
2. Additional subsidy for 1,7 million of people with social welfare problems (PMKS) **Rp400M**
3. Supply side (Health expenditure) **Rp2,3T**
4. Reserve for the increasing number of the poor **Rp0,92 T**
5. Financing reserves for Health Fund **Rp1,5T** dan Financing for BPJS Health **Rp3,5T** ;
6. GoI's contribution as employer for civil servants, polices, and armed forces →**Rp5,3T** (3%)

2016

1.Coverage extention subsidy for the poor (PBI) from 86,4 million people to 92 million people, and tariff adjusdment
2.Additional subsidy for 1,7 million of people with social welfare problems (PMKS)→**Rp400 M**
3.GoI's contribution as employer for civil servants, polices, and armed forces →**Rp5,3T** (3%)

Closing Remark

- The successful of health care program needs active support of the medical profession and health professionals, both the public and private sectors
  - Being attentive to real needs, looking for best practices, avoiding over prescriptions and educating the people
- 2016 shall be better predicted
  - Yet surprises may still happen
- Public marketing is a key
- Improvement in regulations needs to be done regularly
- Enforcement should take place consistently
- Capacity to review the value for money of the program shall be improved
  - The budget must spent efficiently

Thank You

HARVARD Kennedy School
ASH CENTER
for Democratic Governance and Innovation

RESULTS FOR DEVELOPMENT

Transparency for Development:

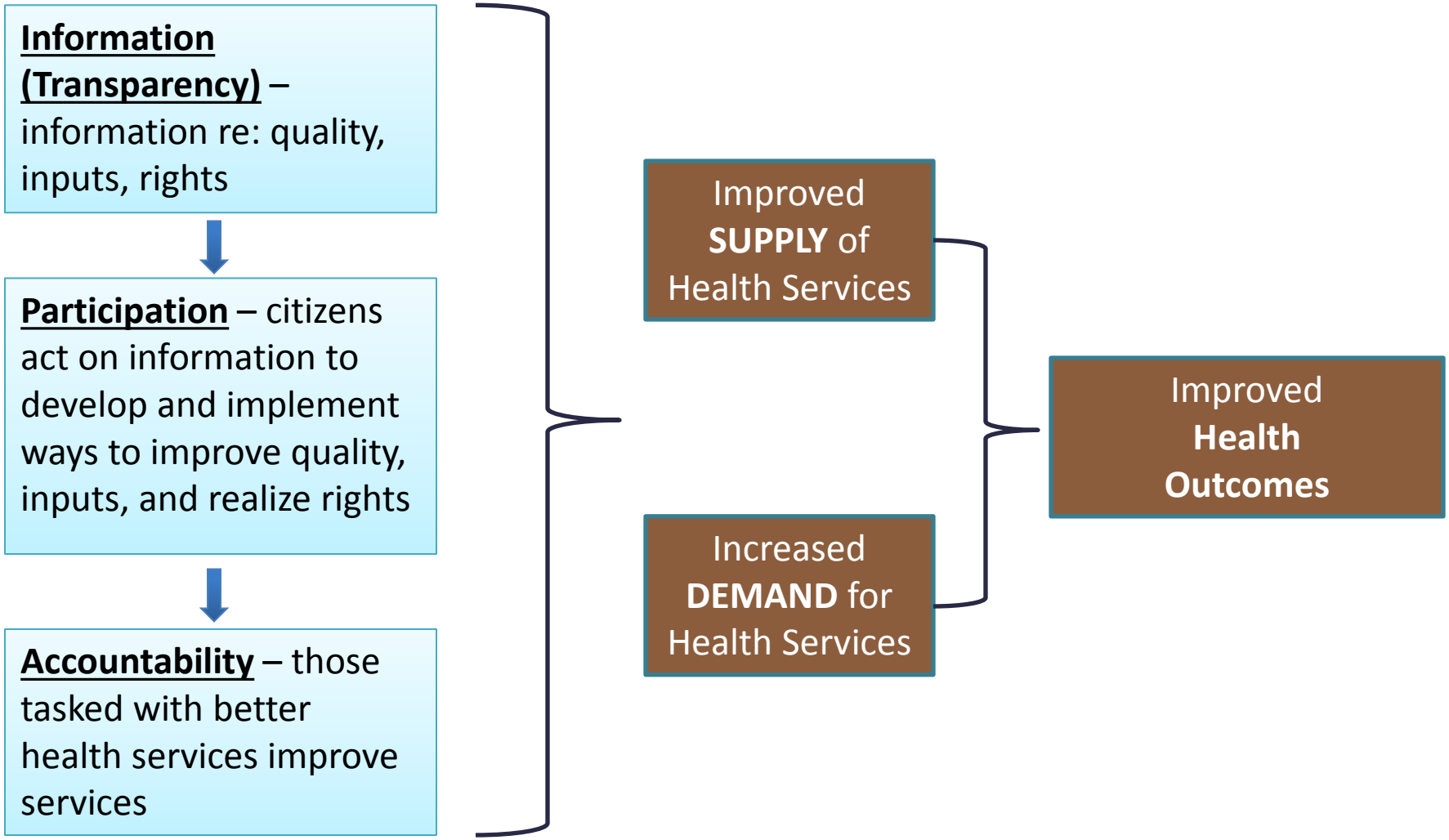
Information and Community Engagement to Improve Health Services in Indonesia and Tanzania

APPF 2015
August 13, 2015

Stephen Kosack
University of Washington/Harvard

An Inspiring Story…

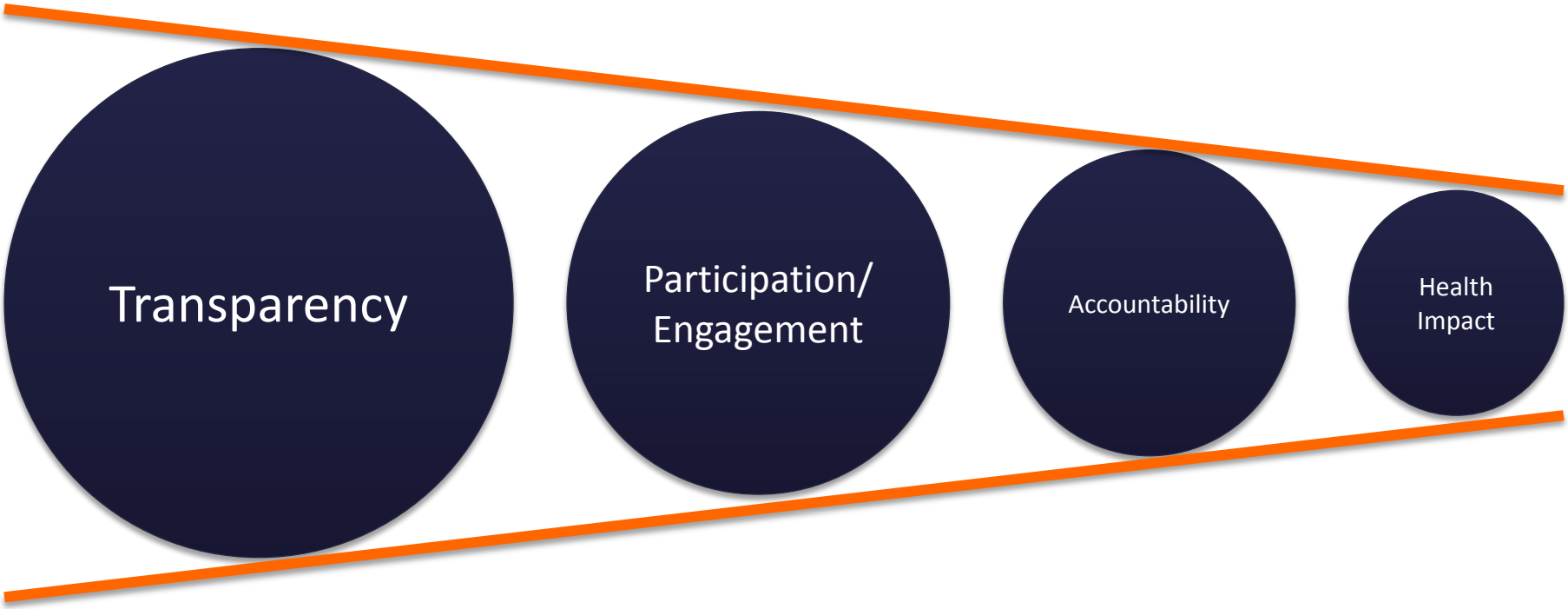
The Intuition



Three Assumptions

1. Existing health resources can be used more effectively.
2. Communities—even poor and remote ones—have the capacity to diagnose problems with how health resources are used and to develop and implement plausible improvements.
3. Those improvements work: they make the health system more effective and people healthier.

But…


Transparency
Participation/
Engagement
Accountability
Health
Impact

A Lot of Unknowns

- Does T/A work?
- What kind of T/A works?

  Community score cards, citizen report cards, public expenditure tracking surveys, comparative performance ranking, social audits, absenteeism studies,…
- How does T/A work?

  Individual choices, naming and shaming, policy reform, community problem solving,…
- How does context shape whether and how T/A works?

The Transparency for Development (T4D) Project

Goal: To generate rigorous, comparative evidence on *whether and how* a locally appropriate T/A program can improve health care.

- Joint project of Harvard Kennedy School's Ash Center and the Results for Development Institute
- Five-year project (2013 - 2018)
- Funding - Hewlett Foundation, Gates Foundation, DfID (coordinated by Transparency and Accountability Initiative)
- Key Components
  - Intervention Co-design with local civil society partners in Tanzania and Indonesia.
  - Mixed Method Evaluation – randomized control trial and qualitative evaluation

Indonesia Partner: PATTIRO
(Center for Regional Information and Studies)

PUSAT TELAAH DAN INFORMASI REGIONAL

PATTIRO

Synergize The Action, Lead The Change

Search this site...

Bahasa English

Tentang Kami | Jaringan | Blog | Publikasi | Penelitian | Ulasan | Berita | Hubungi Kami

01 AUG 2015

Buletin Open Government Indonesia Edisi Perdana

Pengenalan Umum tentang Open Government Partnership (OGP) at Kemitraan Pemerintahan Terbuka ke Publik

TOPIK

+ Akuntabilitas Sosial Untuk Pelayanan Publik
+ Keuangan Publik
+ Transparansi

SIKAP KAMI

PATTIRO: Pemerintah Bertanggung Jawab atas Ketidaksiapan Desa

PATTIRO: Kemendes PDTT Perlu Menyusun Road Map Kemandirian Desa

Three Assumptions

1. Existing health resources can be used more effectively.
2. Communities—even poor and remote ones—have the capacity to diagnose problems with how health resources are used and to develop and implement plausible improvements.
3. Those improvements work: they make the health system more effective and people healthier.

The Basic Intervention

Information Gathering -

about outcomes and problems in maternal and newborn health

Information Sharing (Transparency) –

Community meets to (1) review information and (2) decide on community action

Social Action (Accountability) –

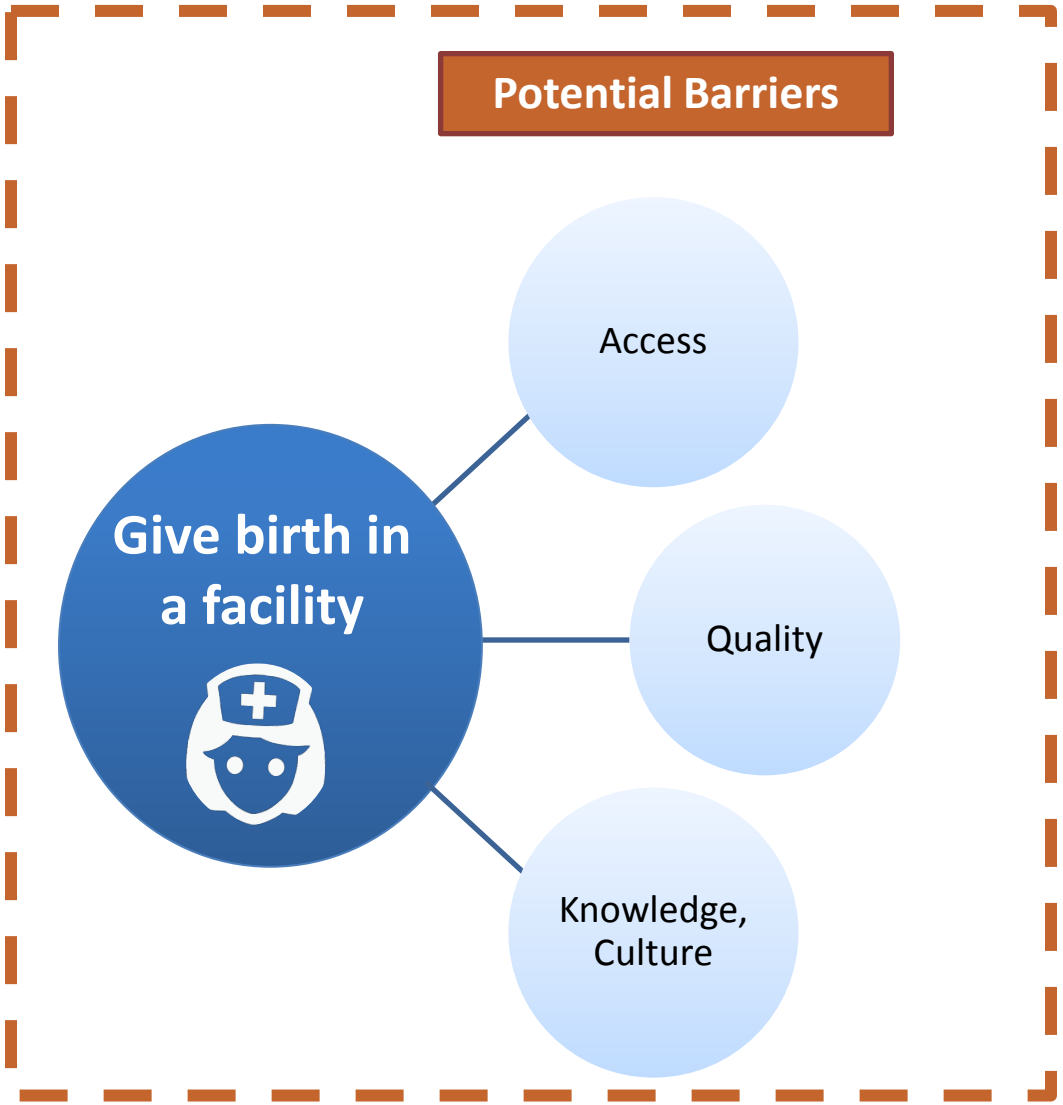
Based on discussions, community decides social action(s) to take to improve health

Some Problems with MNH

	Banten	South Sulawesi
Delivered at a facility	42.9%	64.5%
Mother received full post-partum check	7.5%	12.3%
Baby received full newborn check	19.2%	22.0%

Source: Transparency for Development, 2015 MNH Household Survey

So, what is going wrong?



Flexibility allows:

- **Helps identify root causes** that may not be readily apparent to external observers
- Potential for **greater participation** based on community choice of priorities

Three Assumptions

1. Existing health resources can be used more effectively.
2. Communities—even poor and remote ones—have the capacity to diagnose problems with how health resources are used and to develop and implement plausible improvements.
3. Those improvements work: they make the health system more effective and people healthier.

Some early actions

- Community members educating pregnant women and escorting them to facility for birth
- **Tanzania:** Developing community pool fund to help women who need care (e.g. to pay for transportation)
- **Indonesia:** Engaging and supporting midwife to move to the community

Three Assumptions

1. Existing health resources can be used more effectively.
2. Communities—even poor and remote ones—have the capacity to diagnose problems with how health resources are used and to develop and implement plausible improvements.
3. Those improvements work: they make the health system more effective and people healthier.

T4D Research Questions

Impact on health outcomes

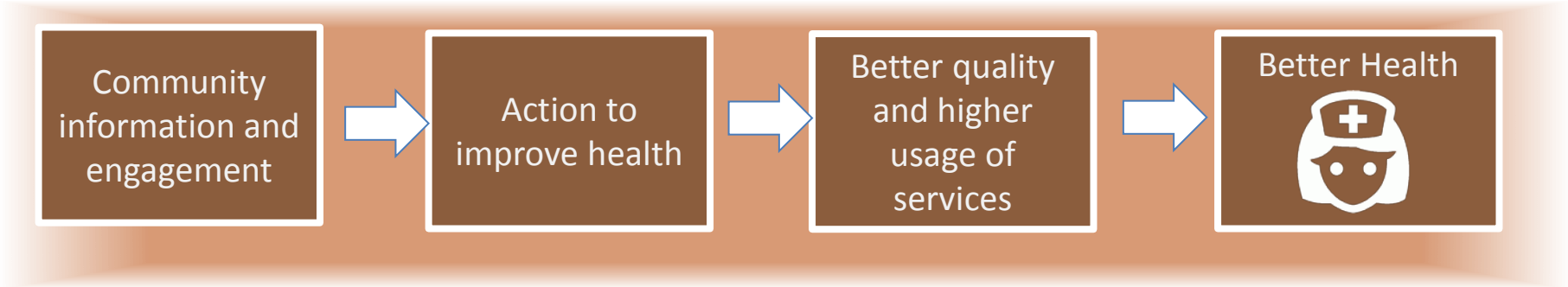
Implications for empowering citizens

Mechanisms through which effects occur

Role of context in shaping these mechanisms

Project Research Methods

RCT – "Does this work?"



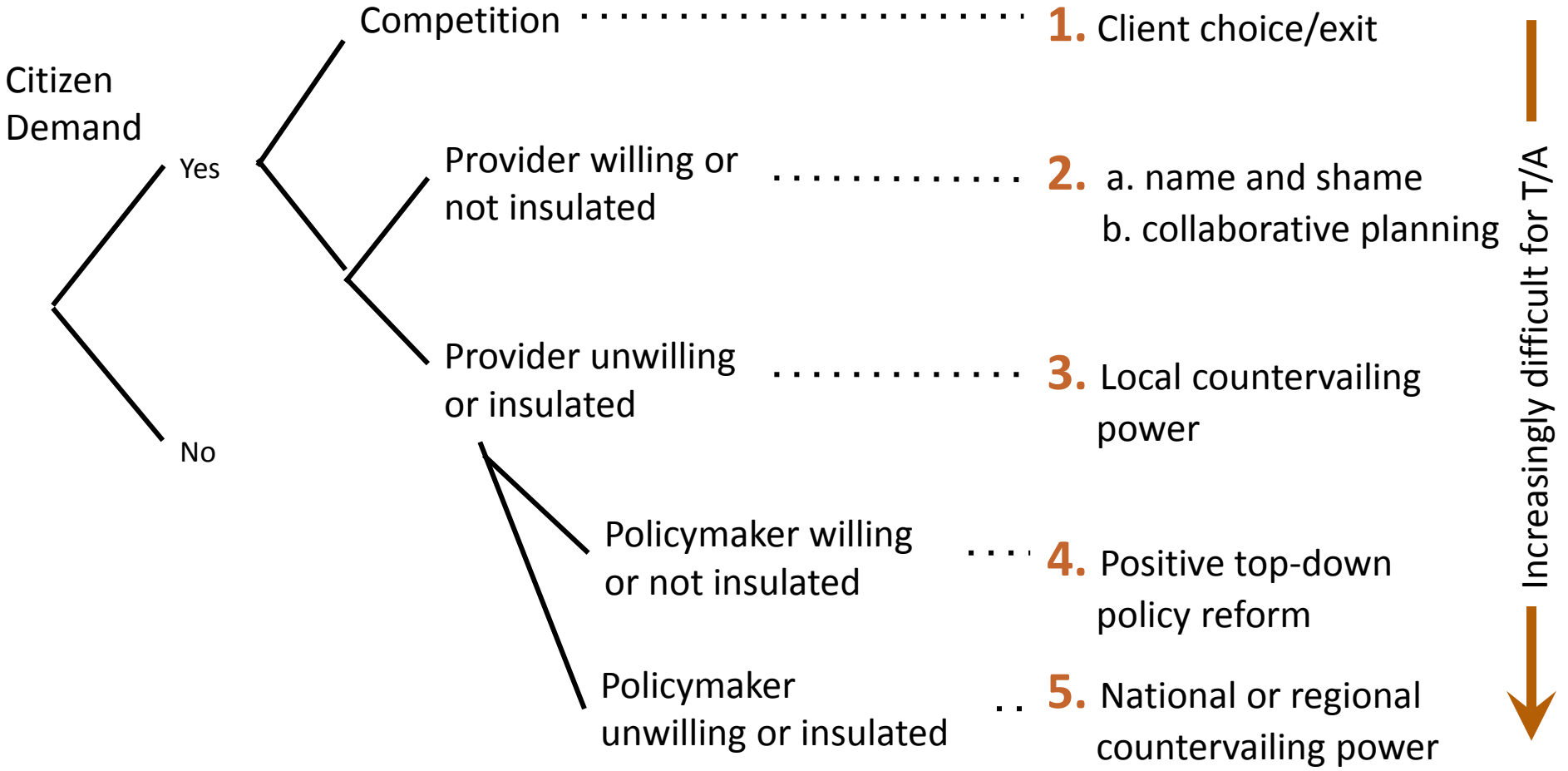
Qualitative – "How does this work?"
– "Does it work differently in different environments?"

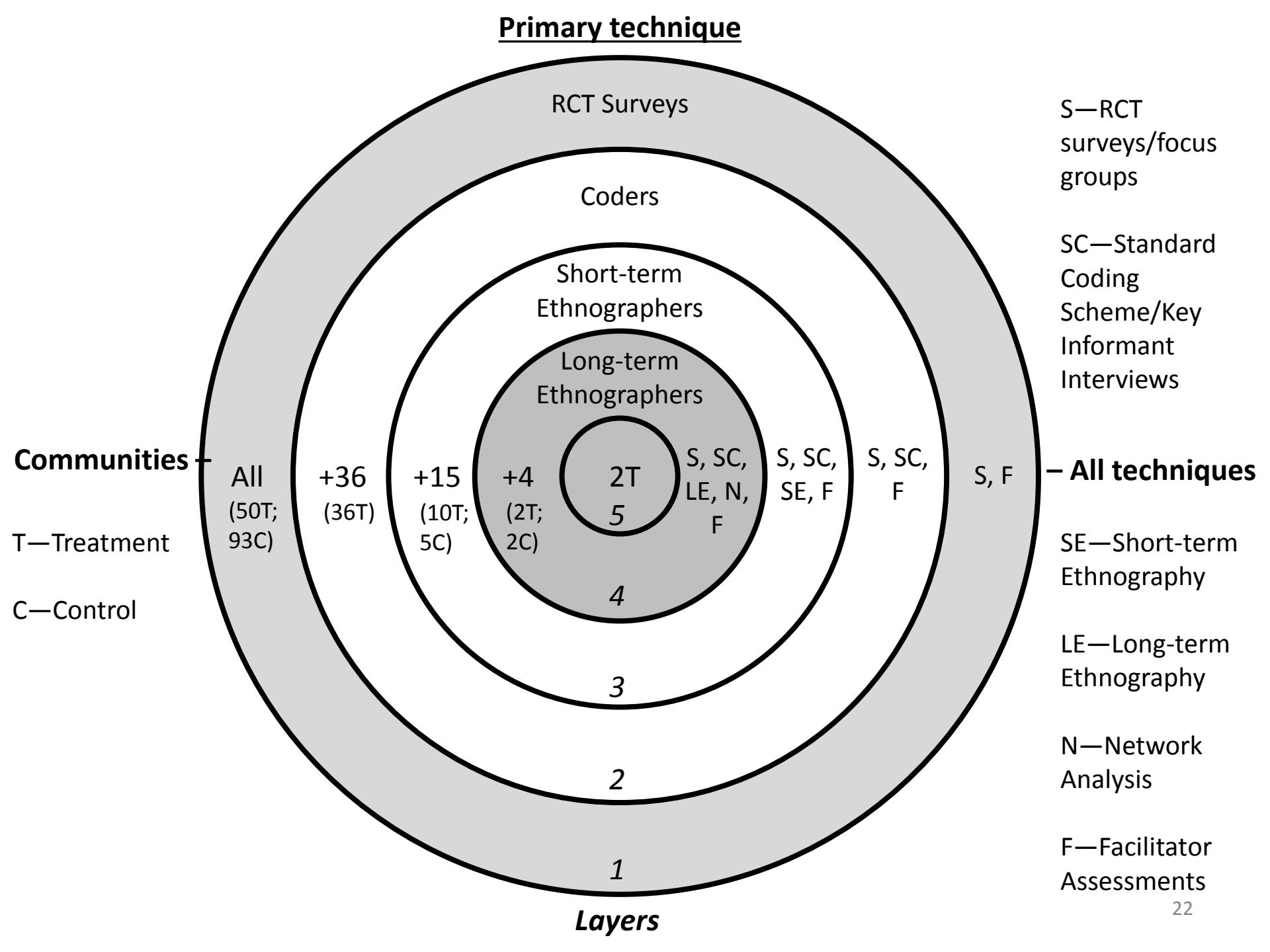
THANK YOU!

- Other T4D Team Members:
  - Archon Fung (Harvard)
  - Dan Levy (Harvard)
  - Courtney Tolmie (R4D)
  - Jessica Creighton (Harvard)
  - Jenna Juwono (J-PAL SEA)
  - Jean Arkedis (R4D)
- T4D Funders:
  - the Gates Foundation
  - the Hewlett Foundation
  - UK Department for International Development
- Indonesia Partners:
  - PATTIRO (especially Sad Dian, Didik Purwandanu, Novi Anggraeni)
  - J-PAL Southeast Asia, University of Indonesia
- Other Partners:
  - Ash Center, Harvard Kennedy School
  - Results for Development Institute
  - CHAI, Tanzania

Backup Slides

5 Worlds Framework




Primary technique
RCT Surveys
Coders
Short-term Ethnographers
Long-term Ethnographers
2T
5
S, SC, LE, N, F
S, SC, SE, F
S, SC, F
S, F
4
3
2
1
Layers
Communities
All (50T; 93C)
+36 (36T)
+15 (10T; 5C)
+4 (2T; 2C)
– All techniques
S—RCT surveys/focus groups
SC—Standard Coding Scheme/Key Informant Interviews
SE—Short-term Ethnography
LE—Long-term Ethnography
N—Network Analysis
F—Facilitator Assessments
T—Treatment
C—Control

The Co-Designed Intervention

Information Gathering

In community meeting, information about maternal and newborn health beyond service delivery

Information Sharing (Transparency)

Community selects barrier(s) that are most relevant to their community and highest priority

Social Action (Accountability)

Social actions developed after discussion of "social action stories" spanning the "Five Worlds"

HARVARD Kennedy School
JOHN F. KENNEDY SCHOOL OF GOVERNMENT

Delivery in a Health Facility with a Skilled Attendant

Knowledge, Attitude and Behavior

Know it is safest to deliver in a health facility with a midwife: 4

Needed permission from husband: 5

Prefer the baby dukun: 18

Access (Cost and Transport)

$$$

Reported paying a bribe: 10

No transportation: 15

Information clearly posted at puskesmas:

- Open hours: √
  Specify: 8am – 2pm
- Midwife mobile for emergencies: X
- Cost of delivery: √
  Specify: 500,000 Rp.

Service and Quality

Reported disrespect from the midwife: 3

Received birth preparedness counseling from the midwife or cadre: 9

The midwife is not available when needed: 7

Number of times midwife did not attend posyandu in last 3 months: 5

Cleanliness of Puskesmas:

- Blood on floor: X
- Dirt or fluids on floor: X
- Blood on delivery bed: X
- Dirt or fluids on bed: √

Delivery beds:

- Number: 2
- Visual privacy: √
- Audial privacy: X

Infrastructure:

- Toilet with door: √
- Running water: X
- Electricity: X

CSC - Levers

ANC within 12 weeks

- 2 OUT OF 10 (OR 21%) OF WOMEN INTERVIEWED IN YOUR VILLAGE RECEIVED ANTENATAL CARE IN THE FIRST 12 WEEKS OF PREGNANCY
- THE REMAINING WOMEN RECEIVED ANTENATAL CARE AFTER 12 WEEKS OR NOT AT ALL

Delivery in a Health Facility

- 4 OUT OF 10 (OR 38%) OF WOMEN INTERVIEWED IN YOUR VILLAGE DELIVERED A BABY IN A HEALTH FACILITY
- THE REMAINING WOMEN DELIVERED AT HOME OR IN ANOTHER LOCATION

Check-up of baby in first 7 days

- 1 OUT OF 10 (OR 8%) OF BABIES RECEIVED A CHECK-UP WITH A HEALTH WORKER WITHIN 7 DAYS AFTER BIRTH

OPV0 Vaccination

- LESS THAN 1 OUT OF 10 (or 6%) OF NEWBORN BABIES IN VILLAGES SURROUNDING MKUYU HEALTH FACILITY RECEIVED OPV0 EACH MONTH (from the period January-July 2014)

CSC - “Community Barriers” (Demand)

?

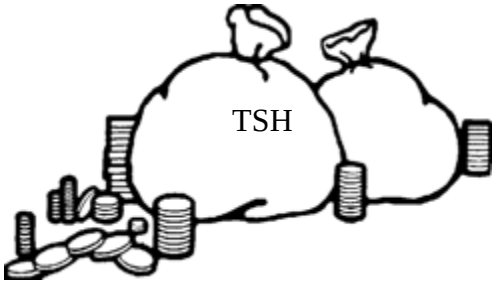
Lack of knowledge

Lack of Support from Family/Community

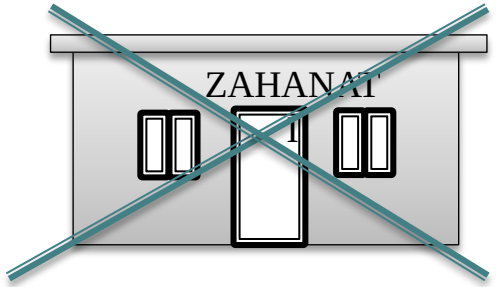
Preference for Traditional Birth Attendants

CSC - “Facility Barriers” (Supply & Service)

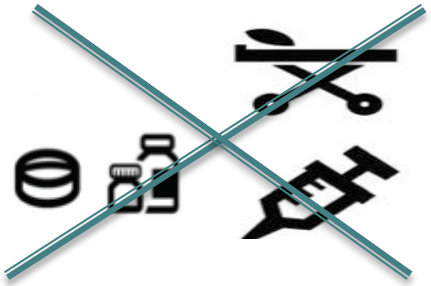
Unfriendly Health Workers



Bribes



Health Facility is Closed



Equipment/supplies not available

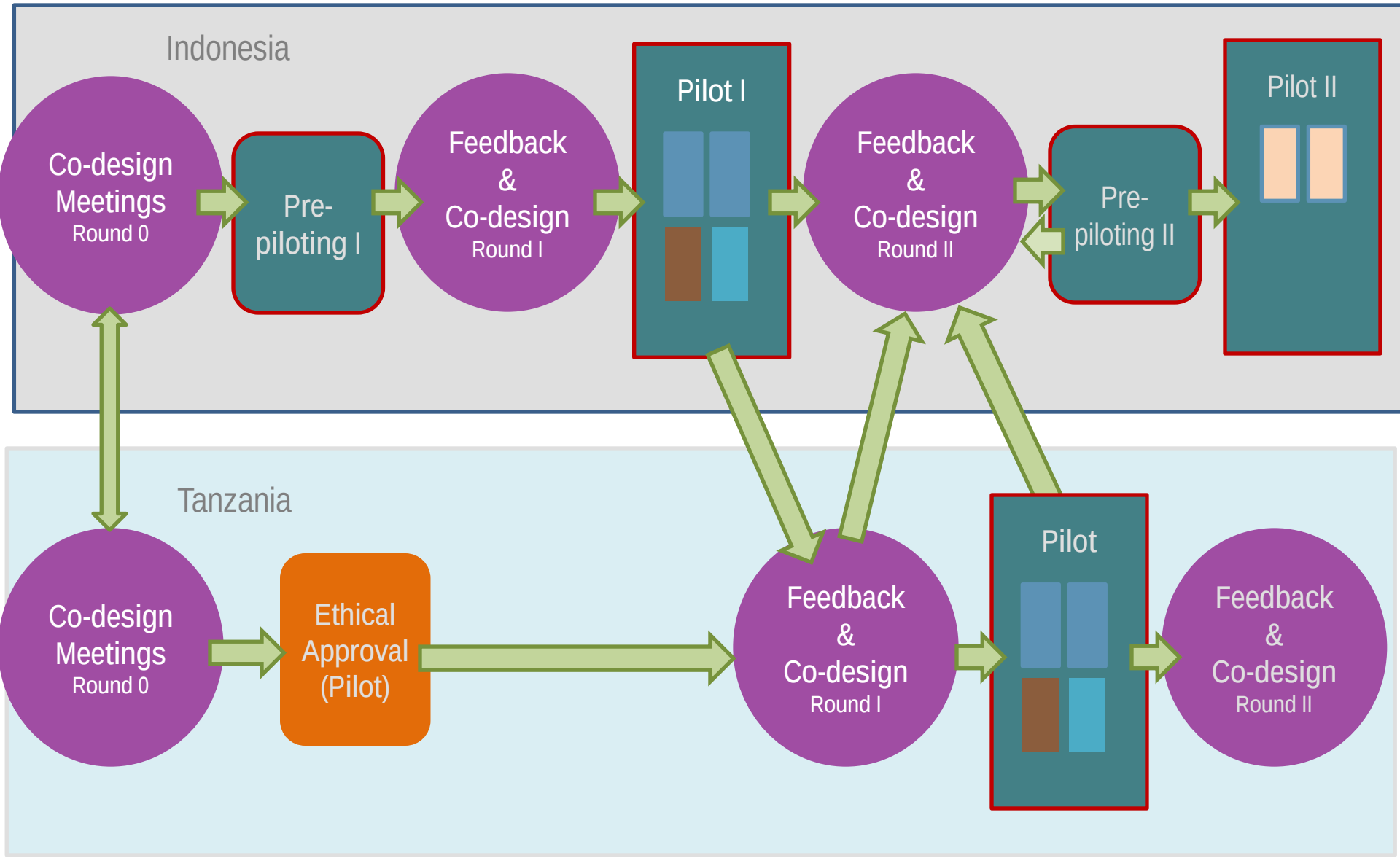
Long Lines/ Waiting Time at Health Facility

Dirty Environment

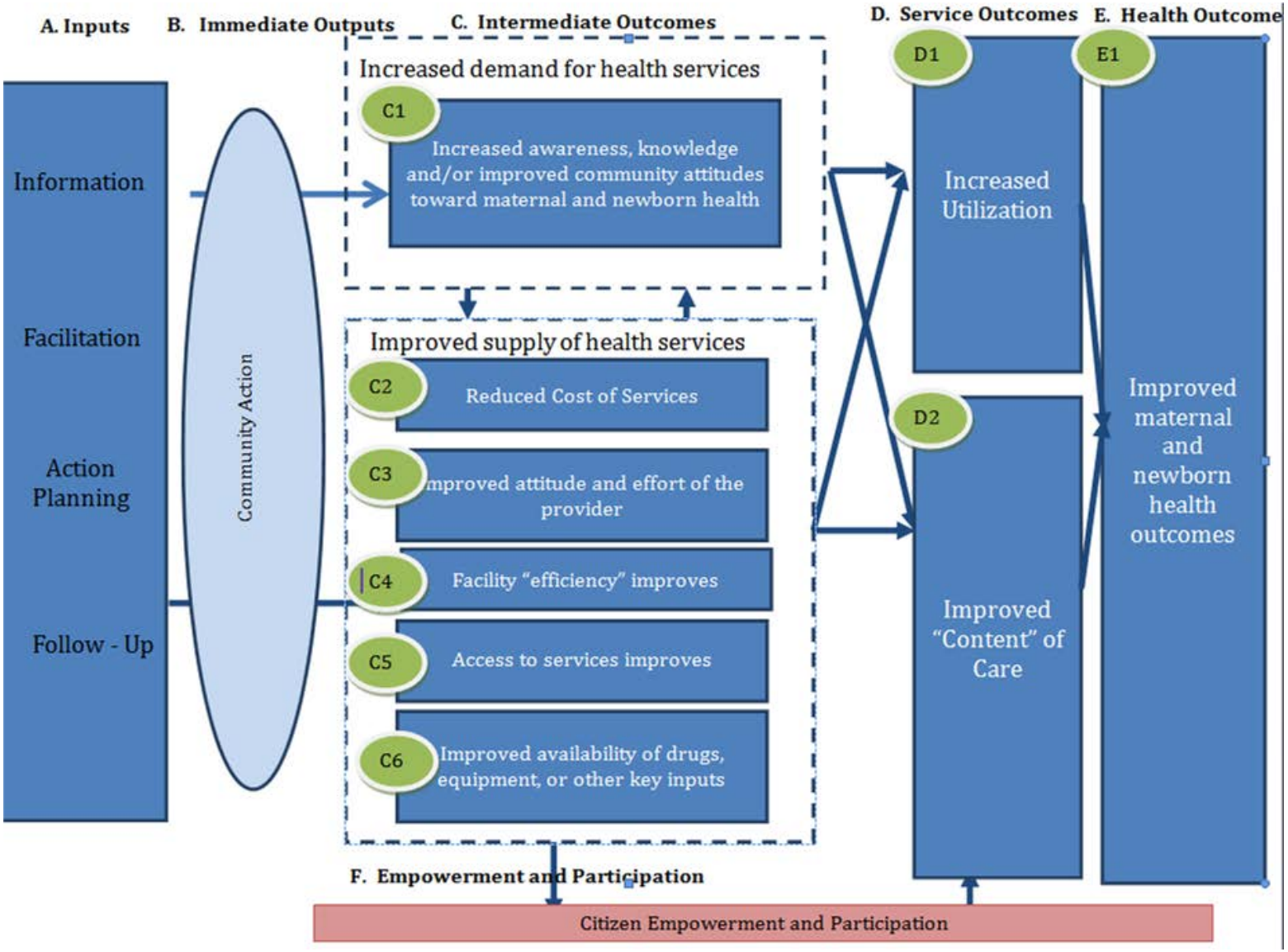
What the pilot is revealing

- **“Light touch” information and facilitation does encourage citizen engagement and participation** – though doesn’t drop the collective action constraint
- **Supply side actions approaches initially less common than demand side actions** – but there is more to this story
- **Communities are focusing on real barriers to better care** – and adapting social actions iteratively based on results
- **Sustainability remains a key question**

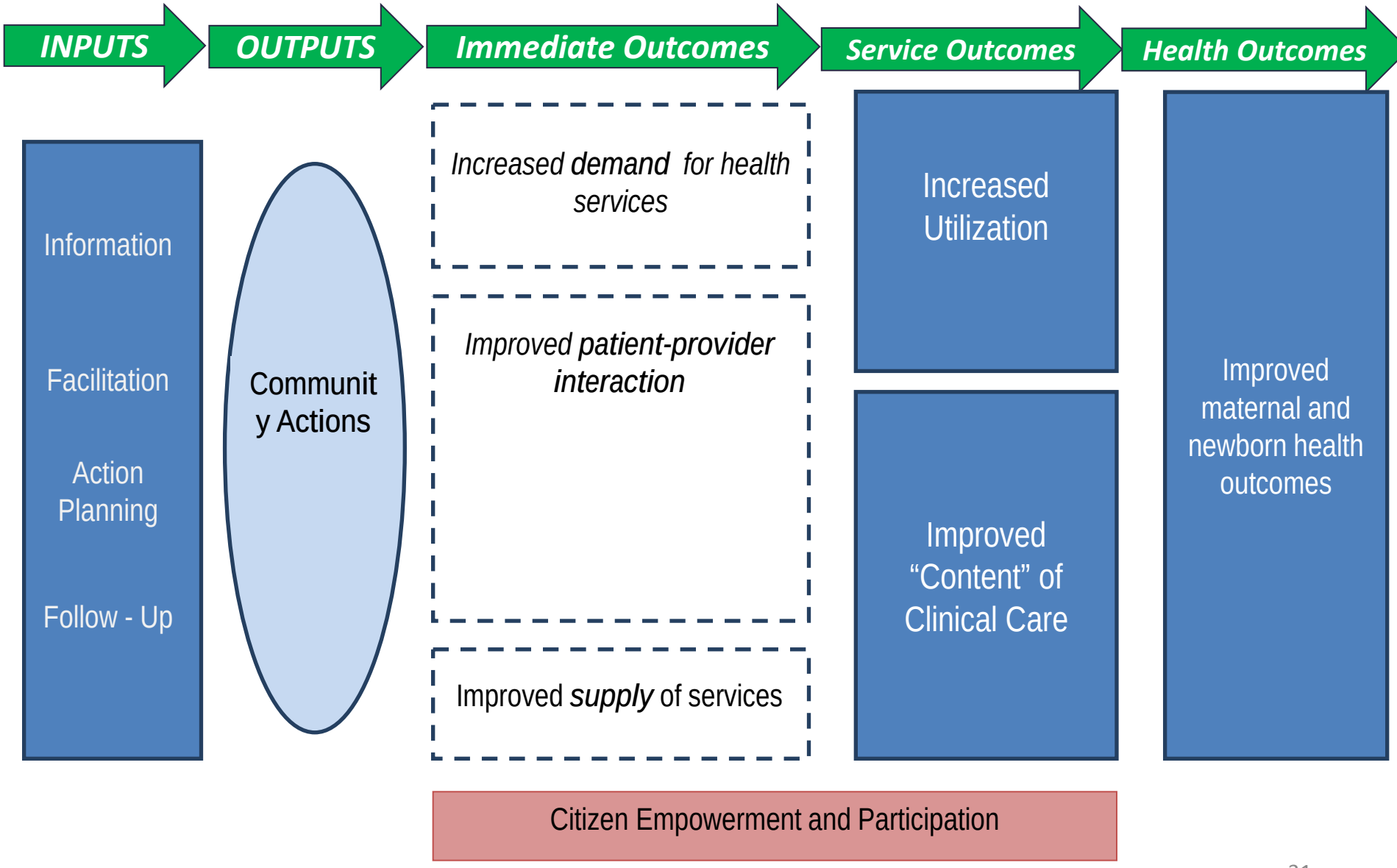
"Crawling the Design Space" – Our Intervention Design Process



Logic Model for the Intervention



Logic Model


INPUTS
OUTPUTS
Immediate Outcomes
Service Outcomes
Health Outcomes
Information
Facilitation
Action Planning
Follow - Up
Communit y Actions
Increased demand for health services
Improved patient-provider interaction
Improved supply of services
Increased Utilization
Improved "Content" of Clinical Care
Improved maternal and newborn health outcomes
Citizen Empowerment and Participation

Tanzania Pilot

Location

Tanzania Region Map

Tanga Region District Map

Tanga Region/Kilindi District

- Site Selection:
  - Limited NGOs (Word Vision, AMREF)
  - Key MNH indicators are low
- About Tanga
  - Borders: Kenya, Kilimanjaro, Manyara, Morogoro, Pwani, Indian Ocean
  - Religion: predominantly Muslim
  - Varied geography: coastal plains, mountainous regions with dense forest
  - Distance from DSM: ±350km from Dar es Salaam (5-6 hour ride by car)
  - Politics: pockets of opposition support (CUF)

Location continued…

Inside a dispensary, Kilindi District

Typical home in Kilindi District

Indicator	Tanga
ANC visit within 12 wks	16%
4 ANC Visits	27%
HF Births	44%
PNC within 7 days	35%

*Source: Tanzania RMNCH Scorecard Jan –Mar 2014, MOHSW HMIS

Site Visit to Kilindi District

- No woman received ANC care before 5 months
- TBAs widely used
- Lack of male involvement

T4D-Tanzania Pilot Overview

Tanzania Region Map

Indicator	Tanzania	Tanga
ANC visit within 12 wks	19%	16%
HF Births	63%	44%
PNC within 7 days (infant)	54%	35%
OPV0	46%	<10% (pilot facilities)

Gap: Tanzania has made great progress towards improving maternal, neonatal and child health but challenges remain in the quality and uptake of key MNH services.

Implementing Partner: Clinton Health Access Initiative

Region Selection Criteria:

- Minimal presence of NGOs working on Maternal, Neonatal, and Child health
- Key MNH indicators are low

Social Action Plans in Tanzania

	Intermediate Outcome Target						
	Increasing the *demand* for services				Improving *supply* of services		Improved *patient-provider* interaction
Villages	Education / Outreach Campaign	Sensitization (New Target Groups)	By-law to fine TBAs for home deliveries	Community Fund	Build Dispensary	Mobile Clinic	Addressing Quality
Mabalanga							
Mafuleta							
Selewa							
Mbogoi							
Mkindi / Mtonga							

Actions from original plan

Actions added/refined in follow ups

Moving beyond "context matters in health" - **Flexibility in the Social Action**

- Tradeoff – Open Social Action versus Identifying Mechanisms

Open Social Action	
Advantages	**Disadvantages**
Actions not prescribed – choice of the communities Allows for flexibility across context factors	Does not provide a simple answer about a specific social action type How do you narrow down context?

Health Intervention and Technology Assessment Program

Health Technology Assessment in Thailand

Sripen Tantivess, BSc (Pharm), PhD

Asia Public Policy Forum 2015

12-13 August 2015, Jakarta

Outline

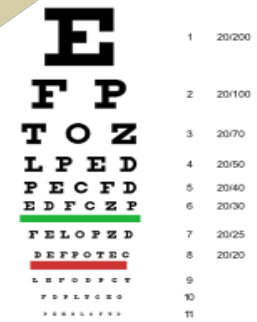
1. Background: UHC in Thailand
2. Health technology assessment (HTA)
3. Introducing HTA in the Thai context
4. Linking HTA and health financing

Thailand's health financing profile

- Population: 67 million
- GNI per capita (2012): USD 5,210
- Total health expenditure: USD 11.2 billion
- Public: household finance: 74%: 18% of THE
- Government-financed benefit schemes (% coverage):
  - Social Security Scheme (13%)
  - Civil Servant Medical Benefit Scheme (11%)
  - Universal Health Coverage Scheme (UHC) (75%)

Health benefit package development

2014: Drug for Gaucher's disease & screening of refractive error in school children by teachers

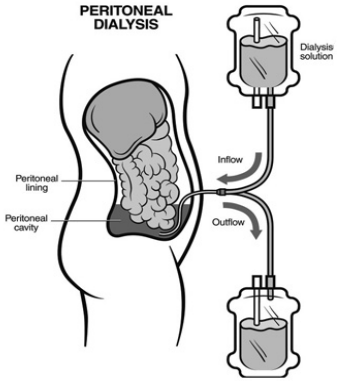


2013: Bone marrow transplantation & bevacizumab in macular disease

2012: Liver transplantation & treatment of chronic hepatitis B and C

2009: Seasonal influenza vaccination

2008: Renal replacement therapy (Peritoneal Dialysis-First Policy)



2003: Antiretroviral therapy

2002: Universal health coverage achieved

Thailand's health ambitions pay off

With political will and public health vision, Thailand is making essential health services available to all its citizens free of charge. Suwit Wibulpolprasert talks to Fiona Fleck.

Q: How do you achieve "rational implementation" and decide which of the bewildering new and expensive health technology options to provide through the Universal Coverage Scheme?

Q: Why did you decide not to include the human papillomavirus (HPV) vaccine for the prevention of cervical cancer in the benefit package?

"Health technology assessment is a vital asset for all countries moving towards universal health coverage."

Bull World Health Organ 2014;92:472–473

Health Technology Assessment (HTA)

'A multidisciplinary field of policy analysis. It studies the ***medical, social, ethical, and economic implications*** of development, diffusion, and use of health technology.'

(INAHTA, 2002)

HTA research

Policy making

Health technology

- The application of organized knowledge and skills in the form of devices, medicines, vaccines, procedures and systems developed to solve a health problem and improve quality of lives. (WHA 60.29, 2007)

- An intervention that may be used to promote health, to prevent, diagnose or treat acute or chronic disease, or for rehabilitation. Note: Health technologies include pharmaceuticals, devices, procedures and organizational systems used in health care. (HTAi and INAHTA, http://htaglossary.net/)

HTA and policy development

HTA evidences

- Clinical effectiveness
- **Cost effectiveness**
- **Budget impact**
- Effects on delivery system
- Social & ethical issues

Policy consideration

- Risks vs. benefits
- **Value for money**
- **Affordability**
- Program feasibility
- Political concerns

Policy utility of HTA

- Market approval
- **Benefit package**
- **Pricing**
- Practice guidelines
- Others

HTA for UHC: International movement

- Regional networks: EUnetHTA, RedETSA, HTAsiaLink
- WHO Regional Committee resolutions:
  - Pan America (2012)
  - South-East Asia (2013)
- WHA resolution: ‘Health intervention and technology assessment in support of universal health coverage’ (2014)

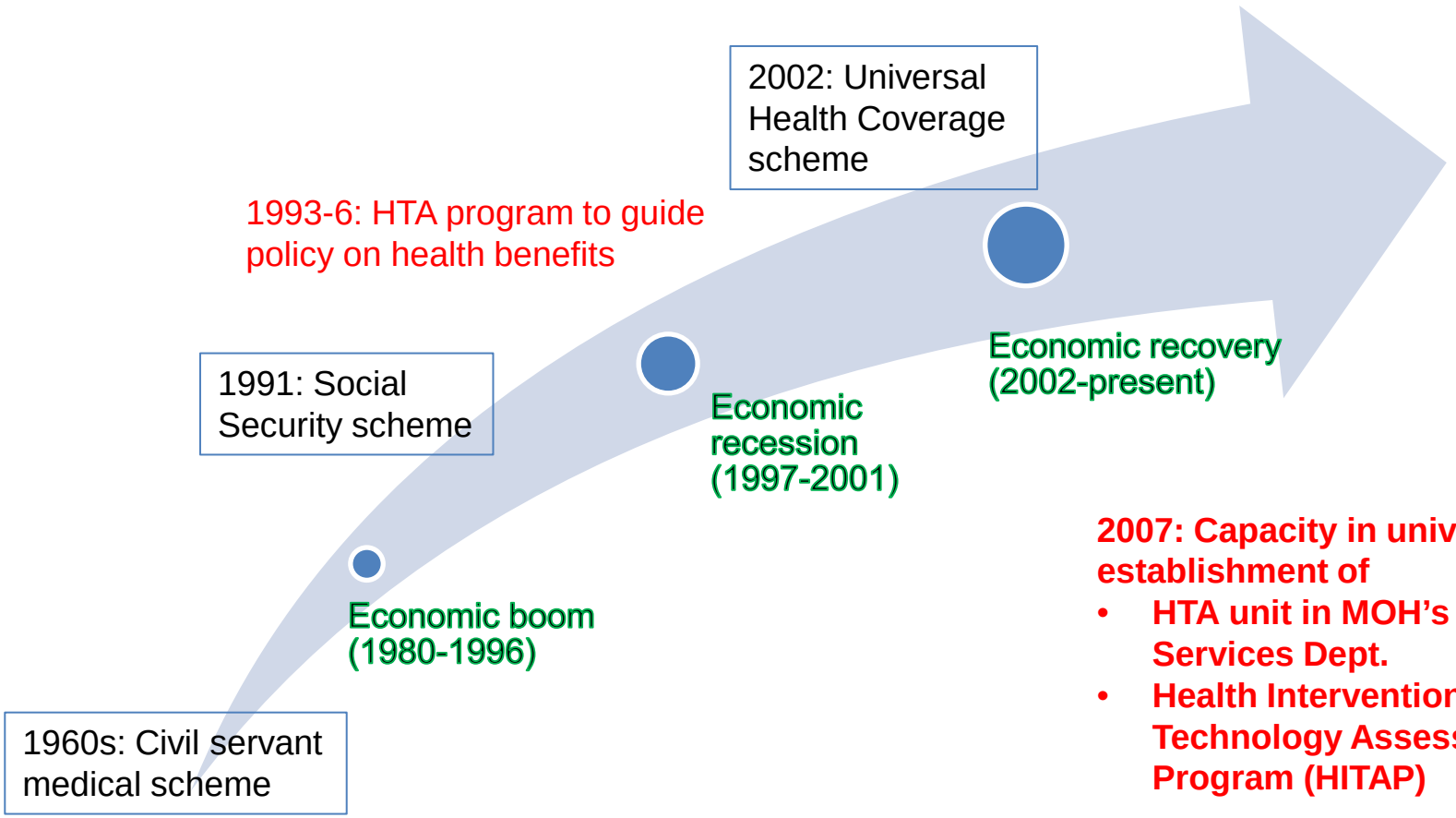
(Adapted from Hong Li, 2013)

Key milestone

HTA in Thailand

Triggers of HTA introduction:

- Growing demand for public resources
- Campaigns for access to costly technology
- Question on UHC sustainability



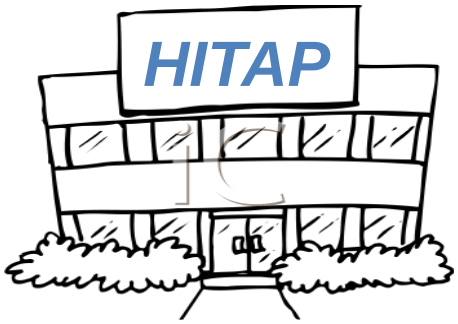
2007: Capacity in universities; establishment of

- **HTA unit in MOH's Medical Services Dept.**
- **Health Intervention and Technology Assessment Program (HITAP)**

Health Intervention and Technology Assessment Program, HITAP

Staff: Total 50
- 40 researchers & RAs
- 10 PhD, 20 MSc (3 PhD candidates)

Finance: government, NGOs, international agencies



'Semi-autonomous' HTA unit in the MOH

HTA
- Research
- System development
- Capacity building
- Communication/Knowledge management

Networks: domestic & international
- Researchers/experts
- HTA users: policymakers, practitioners
- HTA units in Asia - HTAsiaLink
- Others

Principles: Well-functioning HTA

Policy commitment & support

+

Good governance

+

Capacity/resources

Research: multidisciplinary, scientific rigor, transparence, independence, participation, policy-relevant questions

Evidence

Decision making

Resource allocation

& other policies

Implementation & context

Population health
Efficiency
Equity
Sustainability

Use of HTA in Thailand

- **Benefit package development**
  - What technologies should be covered?
  - Price negotiation
  - Investment in infrastructure and human resources
- **Policy/program evaluation:** examples
  - Health promotion interventions for the elderly
  - School Health program
  - National Strategy on Palliative Care
  - Quality and Outcomes Framework program

HTA and coverage decisions

National List of Essential Medicines

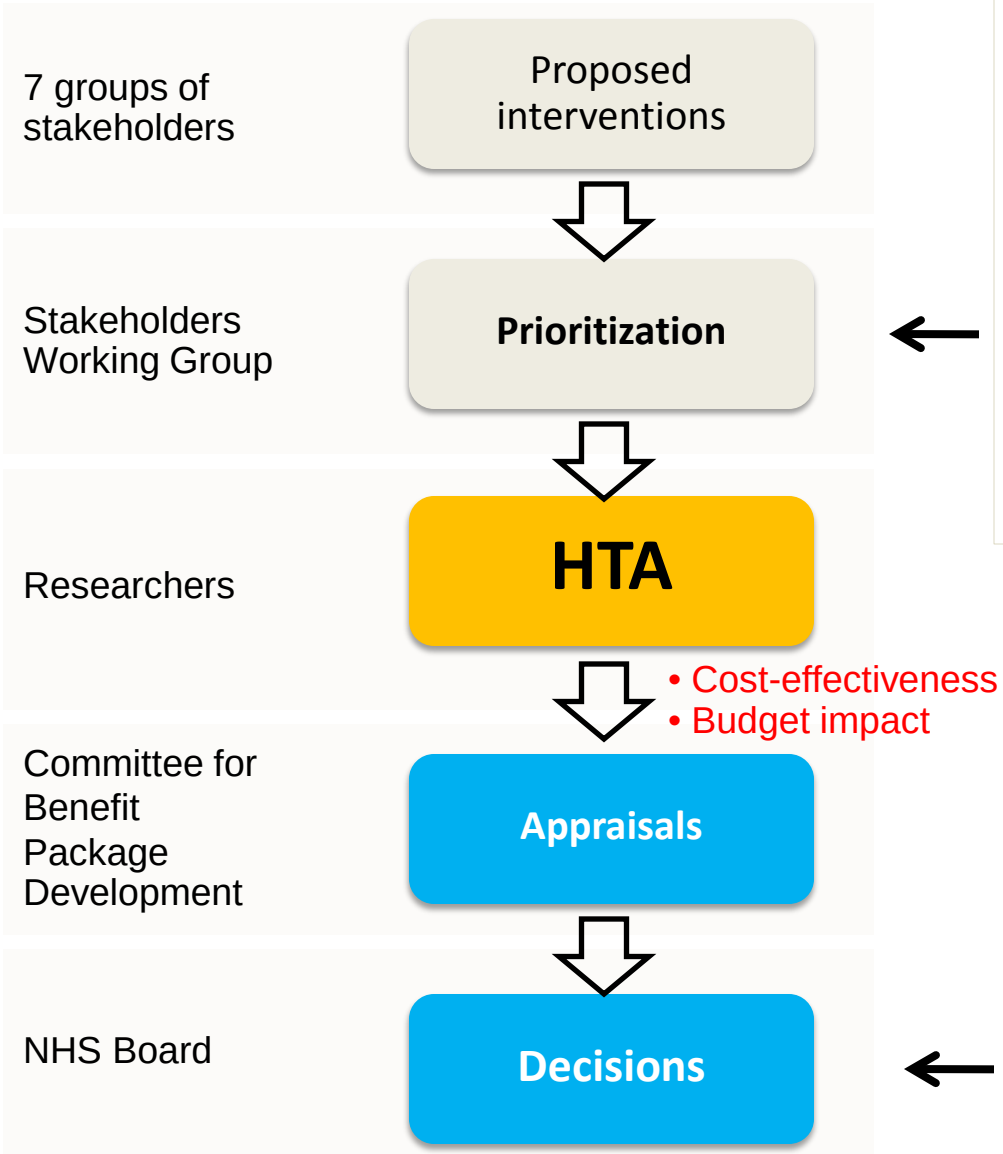
- NLEM Committee under the National Medicine Policy Commission
- Pharmaceutical benefit package (3 schemes)
- Introduced with public procurement regulations
- Requested information: cost-effectiveness and budget impact

UHC benefit package

- National Health Security Board
- Medical and public health interventions
- Requested information: cost-effectiveness, budget impact and feasibility

Cost-effectiveness threshold: 1 GNI per capita per QALY gained

UHC Benefit package development



Criteria:

a) Magnitude & severity of problems

b) Effectiveness of interventions

c) Variation in practice

d) Financial impact on households

e) Equity & ethical dimension

- problem of the marginalized
- rare diseases

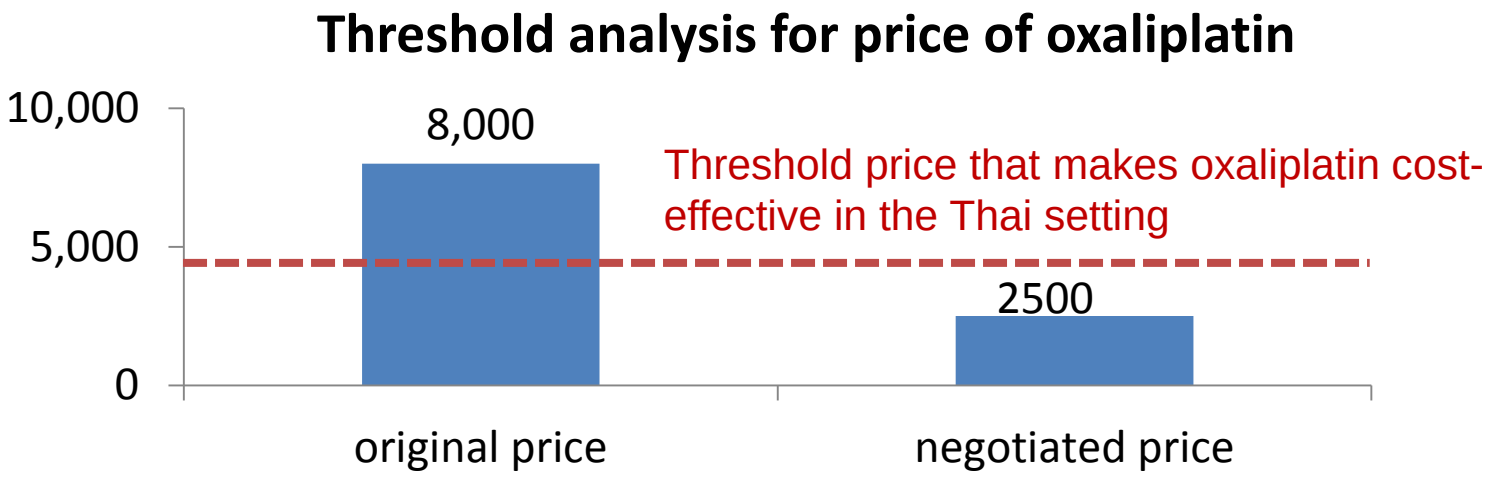
← Appeals by stakeholders

Cost-effectiveness information and coverage decisions

Medicines (indication)	ICER (THB/QALY)	Coverage	Year
Alendronate, residronate, raloxifene (Osteoporotic fractures, prevention)	300,000-800,000	No	2009
Atorvastatin, fluvastatin. pravastatin (Cardiovascular disease, prevention)	Negative dominant	No	2009
Galantamine (Mild-to-moderate Alzheimer's disease)	157,000	No	2010
Donepezil, rivastigmine (Mild-to-moderate Alzheimer's disease)	180,000-240,000	No	2010
Simvastatin (Cardiovascular disease, prevention)	82,000	Yes	2009
Peg interferon alpha 2a&2b plus ribavirin (Chronic hepatitis C subtype 1, 4, 5 & 6)	Cost-saving	Yes	2011
Lamivudine, tenofovir (Chronic hepatitis B)	Cost-saving	Yes	2011
Imiglucerase (Gaucher disease type 1)	6,300,000	Yes	2012

Note: Threshold: ICER ≤ 120,000 THB per QALY

Use of cost-effectiveness evidence in price negotiation



Products	Original price (THB)	Reduced price (THB)	Potential saving (THB per year)
Tenofovir	43	12	375 million
Pegylate interferon alpha-2a	9,241	3,150	600 million
Oxaliplatin (injection 50 mg/25 ml)	8,000	2,500	152 million

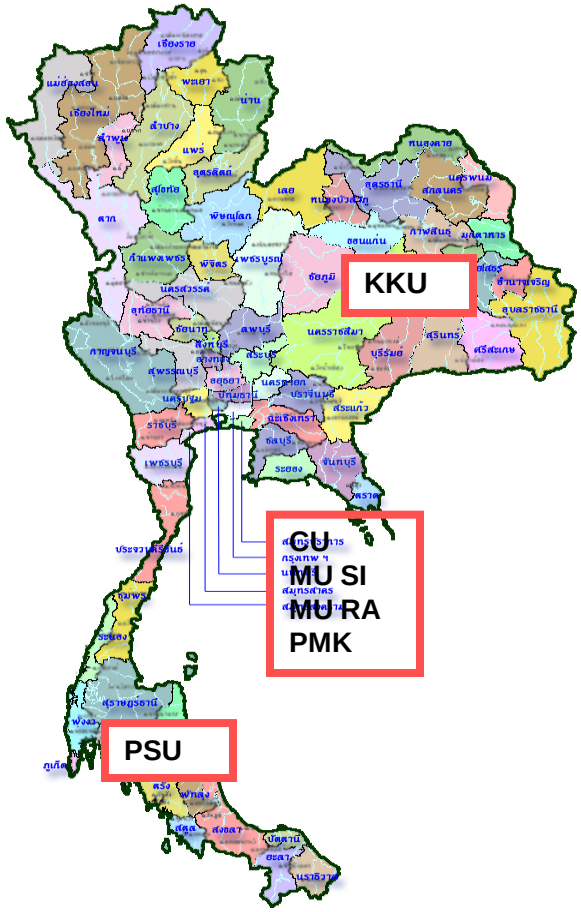
Hematopoeitic stem cell transplantation (HSCT) in severe thalassemia

- Thalassemia: 1% of Thai population afflicted
- Severe thalassemia incidence: 4,200 per year
- Standard treatment (covered by the UHC):
  - Blood transfusion (BT)
  - Iron chelation therapy (ICT)

- Curative treatment: HSCT, inequitable access across the 3 public schemes
- UHC scheme: HSCT accessible for leukemia and lymphoma
- Related HSCT (severe thalassemia cases 1-15 yrs old):
  - more cost-effective than BT-ICT (ICER USD 2,340 to 5,310 per QALY)
  - adopted as UHC benefit in 2011
  - a feasibility study was required

Is universal access to HSCT feasible?

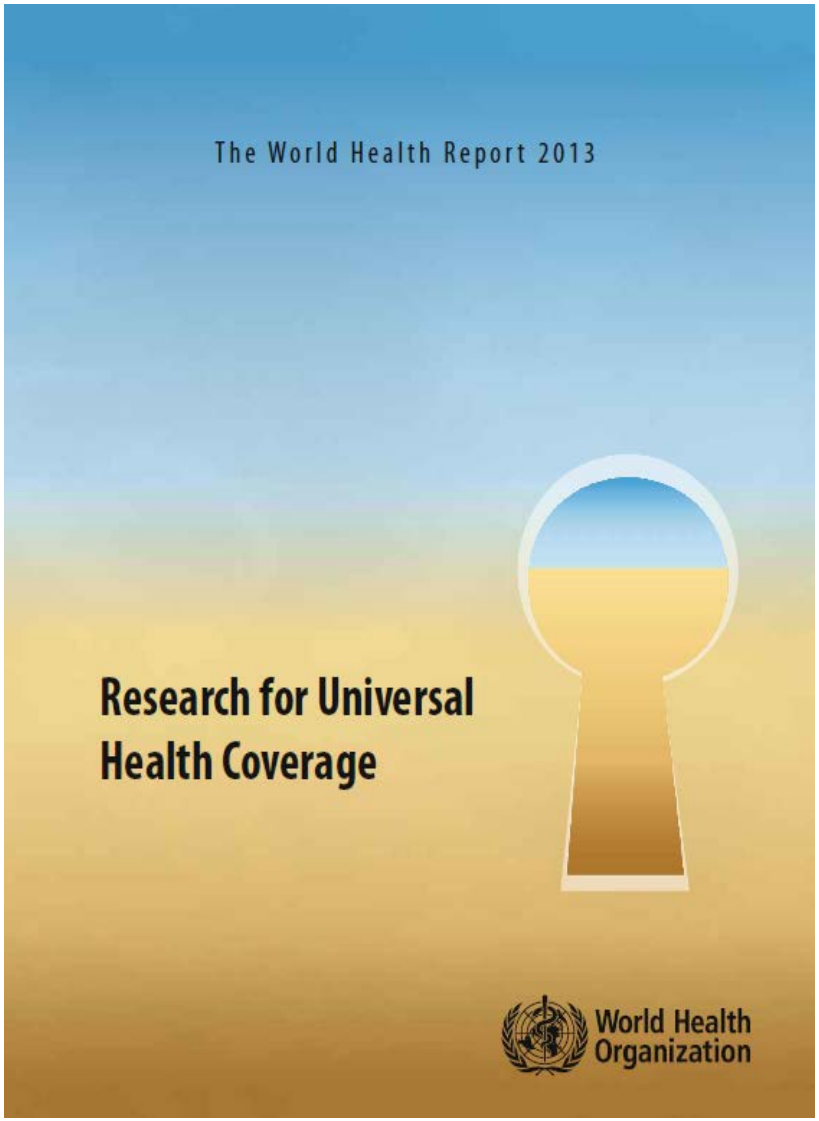
Supply side barrier



- 6 HSCT centers, 4 located in Bangkok
- Hematologists trained in HSCT: 16 → 25 (2016)
- Access to HSCT in severe thalassemia: 22 → 100 (2016)

Investments in infrastructure

and workforces



Success factors of HITAP:

- Strong research environment in Thailand
- Collegiate relationships with similar institutes
- Working with peers
- Transparency in research methods
- Code of conduct – COI management
- Political support from government
- Public support
- External review

(http://www.who.int/whr/2013/report/en/index.html)

Linking HTA and health financing

- Large volume of UHC budget – transparency and reliability
  - HTA guidelines: research methods & processes
  - Stakeholders involvement
- Suitable comparators, e.g. vaccine v.s. screening and early treatment
- Price negotiation mechanism attached with coverage decisions
- Dynamicity: re-assessment; investment & disinvestment
- Good health at low cost: effects of individual products, technology, financing mechanisms, program implementation
- Resource allocation is political decision
  - Value embedding
  - Can be “informed” by evidence

Email: sripen.t@hitap.net

Website: http://www.hitap.net

universitas paramadina

Paramadina Graduate Schools

"The Politics of Social Insurance in Indonesia"

Dinna Wisnu, Ph.D
dinna.wisnu@paramadina.ac.id
dinnawisnu@gmail.com
Associate Professor
Twitter: @dinnawisnu

Asia Public Policy Forum 2015:
The Financing and Delivery of Public Health Services in Asia

Jakarta, 12-13 Aug 2015
Hotel Borobudur
Harvard Kennedy School-Ash Center

Until January 1, 2014 & July 1, 2015:

- Social Assistance (to reach the poor): in-kind program, cash transfer, conditional cash transfer
- Social Security (mandatory, basic benefits): Jamsostek (for formal sector workers with permanent contract, the program: work accident/disability/death due to work accidents, death before retirement, old-age protection, and optional health insurance), Askes (health for civil servants), Taspen (old-age for civil servants), ASABRI (health and old-age for military and police personnel)
- Voluntary security: private insurance, optional private investment, family support (out-of-pocket)

The goal for 2014 and beyond

- Universal coverage of mandatory social security on healthcare (*Jaminan Kesehatan National*/National Health Insurance) – provided by BPJS Health
- Mandatory social security on employment for formal sector workers: pension, old-age, work-accident, death – provided by BPJS Employment
- Social Assistance: targeted programs, conditional cash transfer (educating the poor and citizens about promotion of health & quality living)
- No-one denied getting protection, solidarity-based, quality service, ending misery & lack of access to quality service
- From provident fund to social insurance; from the state taking dividend from employers-workers' fund to the state insuring the employers-workers' fund; from separate program for the poor to integrated system of national insurance; from multiple identities to single identity

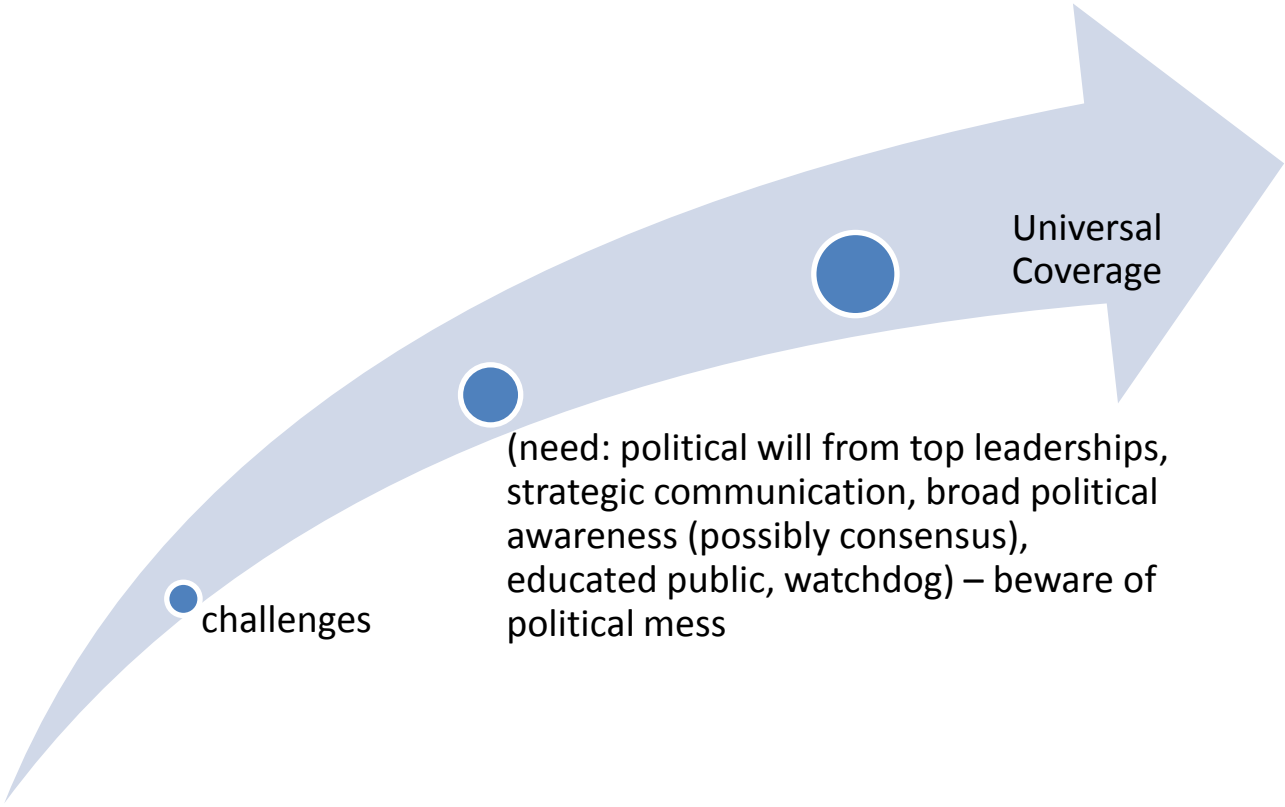
A Leap of Mind set

- From going “out-of-pocket” & self-saving to pooling fund
- From voluntary to mandatory
- From “who can afford will get it” to “all should get it”

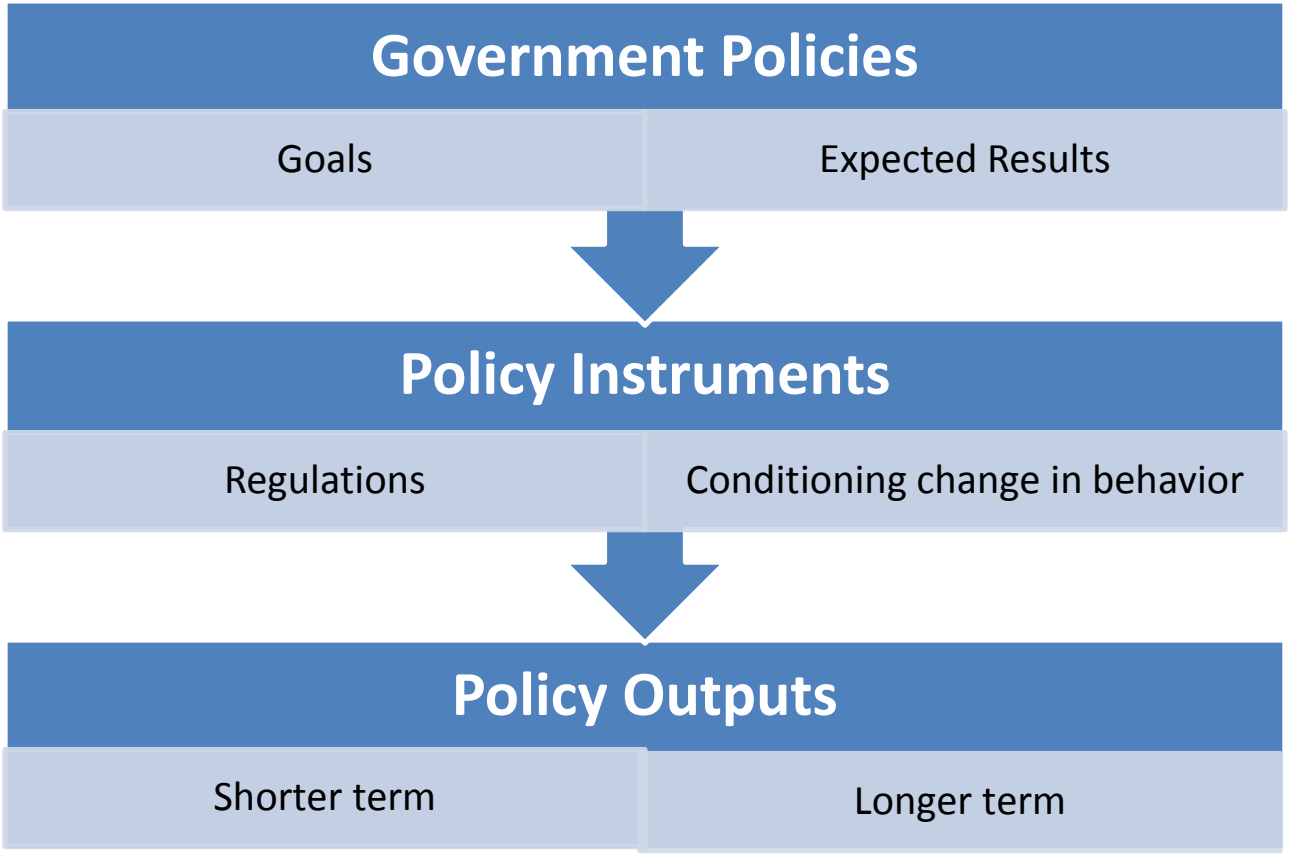
The starting point was the Asian Financial Crisis – 1999 revelation: anticipating future dip in economic crisis → growing poor & lack of government capacity to care for the poor. Goal: autonomy from debt, mobilizing public fund, reforming corrupt system

The challenge for the change:

1. **Change to legislation** (creating new laws, creating new regulations, harmonizing regulations, matching laws with law enforcement capacity)
2. **Change of habit among politicians** (universal coverage, longer horizon on political credit-taking)
3. **Reforming the bureaucracy** (from SOEs to public service units, from caring for targeted groups to caring for all based on satisfactory evaluations)
4. **From less reliance on systematic evidence-based analysis** (due to absence of integrated, reliable, micro-enough data) **to evidence-based decision**
5. **From regulating public health facilities & public-funded workforce to regulating all facilities & workforce**
6. **From manual system to digitized system** (cutting time, cutting cost, cutting corruption & violation)
7. **Strengthening law enforcement**
8. **Shifting state budget & its allocation to support the change** (the institution transformation, the planning, the expansion of service, to reach the poor, to improve the database, etc.)
9. **Massive area of territory needing change**


Universal Coverage
(need: political will from top leaderships, strategic communication, broad political awareness (possibly consensus), educated public, watchdog) – beware of political mess
challenges

At the legislation level: the Indonesia's Social Insurance System has numerous gaps



Case studies on Implementing National Health Insurance:

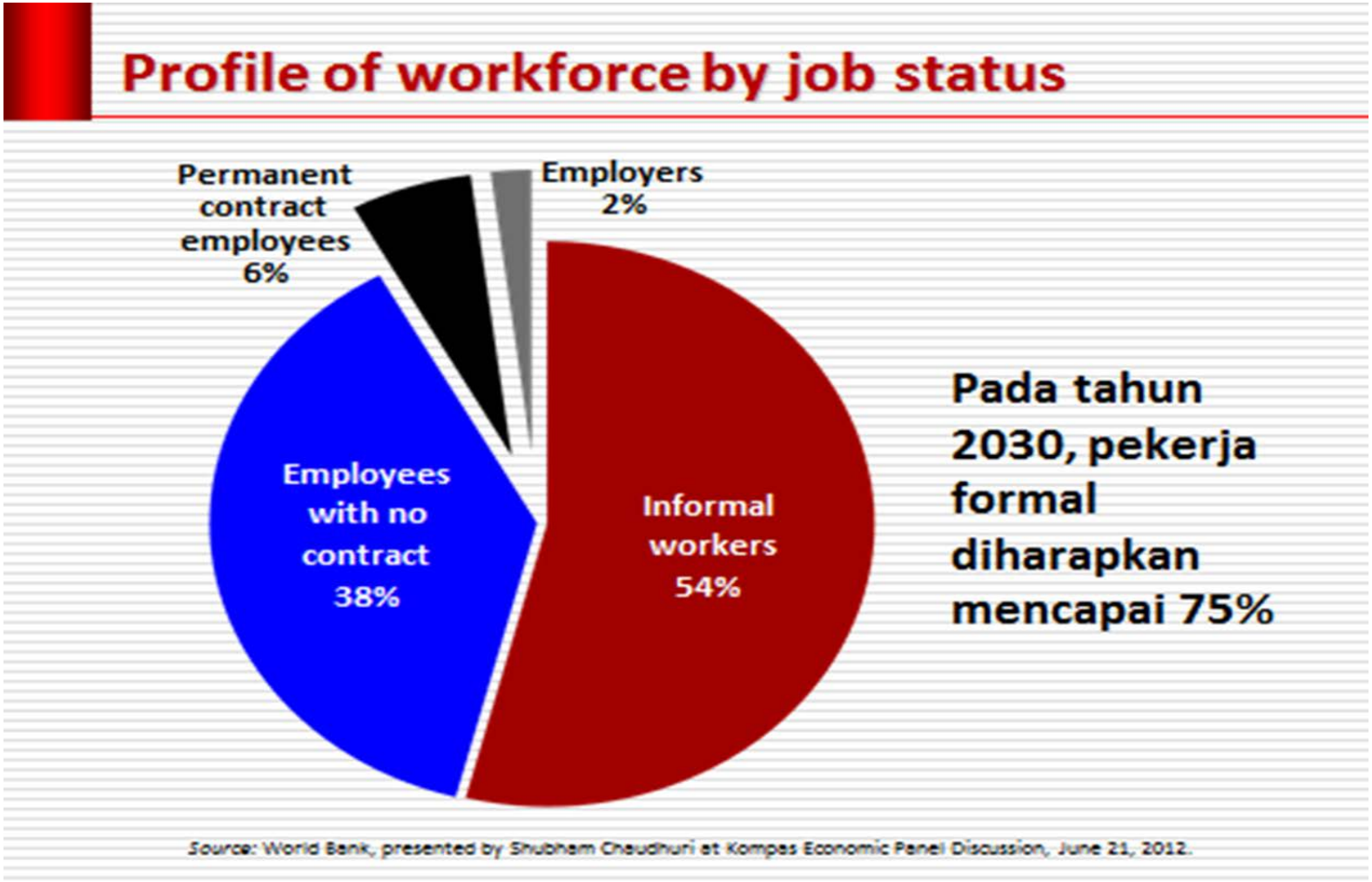
- Regulations are strong on the assumption on the centrality of government control over the aspects of insurance
- Most (if not all) regulations still focus on the user, not the facilities & services, not the government personnel & local authorities
- Health spending is in many “pockets” in the government

- Peraturan BPJS Kesehatan No. 1/2014 tentang Penyelenggaraan Jaminan Kesehatan
- Perpres No. 108/2013 tentang Bentuk dan Isi Laporan Pengelolaan Program Jaminan Sosial
- PP no. 85/2013 tentang Tata Cara Hubungan Antar Lembaga BPJS
- PP no. 86/2013 tentang Tata Cara Pengenaan Sanksi Administratif kepada Pemberi Kerja selain Penyelenggara Negara dan Setiap orang selain pemberi kerja, pekerja, dan PBI dalam penyelenggaraan Jaminan Sosial
- PP No. 88/2013 tentang Sanksi bagi Dewan Pengawas dan Anggota Direksi BPJS
- Permenkes No. 69/2013 tentang tarif Pelayanan Kesehatan Program JKN
- Perpres No. 110/2013
- PP No. 82/2013
- Peraturan BPJS Kesehatan No. 2/2014: Unit Pengendali Mutu Pelayanan dan Penanganan Pengaduan Peserta
- Peraturan BPJS Kesehatan No. 3/2014: Kepatuhan
- Peraturan BPJS Kesehatan No. 4/2014: Tata cara pendaftaran dan pembayaran peserta perorangan BPJS Kesehatan

Government agencies with healthcare funding allocation:

- Ministry of Health
- National Social Security Council (DJSN)
- Ministry of Education (workforce training, school-based education)
- Ministry of Public Works (water & sanitation infrastructure)
- Indonesia National Armed Forces (employee health service system)
- Indonesia National Police (employee health service system)

Case Studies on implementing National Employment Insurance:



Distribution of workforce by sector (%)

Sector	2004	2009*	2014**
Agriculture	44.5	41.1	34.6
Mining and quarrying	1.1	1.1	1.4
Manufacturing industry	11.2	11.8	13.0
Electricity, gas, and water supply	0.2	0.2	0.3
Construction	4.7	4.7	6.1
Trade, hotel, and restaurant	20.2	20.7	21.8
Transport and communication	5.7	5.7	4.5
Financial, ownership and business services	1.2	1.4	2.7
Social services	11.1	13.2	15.6
Total	100.0	100.0	100.0
(million)	97.0	106.6	118.2
Memo:			
Informal workers	70.6	69.9	59.8
Formal workers	29.4	30.1	40.2

* Simple average of February and August ** February.

Source: BPS-Statistics Indonesia

- Gap between regulation on “universal coverage”, “defined benefits” and “contribution rate”
- Gap in the law on people resigning from the workforce (e.g. career woman turn into housewifes, foreign workers going back to their countries)
- Low replacement rate (only 25%)
- Measuring the macro-economic trend: its affect on securing level of benefits

From dinnawisnu@gmail.com

Regional Health System Resilience to Emerging Pandemic Threats

Wiku Adisasmito, DVM, MSc, PhD
Professor in Health Policy, Faculty of Public Health - Universitas Indonesia
Coordinator of Indonesia One Health University Network
Email: wiku.adisasmito@gmail.com

Delivered in:
Asia Public Policy Forum 2015
The Financing and Delivery of Public Health Services in Asia
Hotel Borobudur, Jakarta
August 13th, 2015

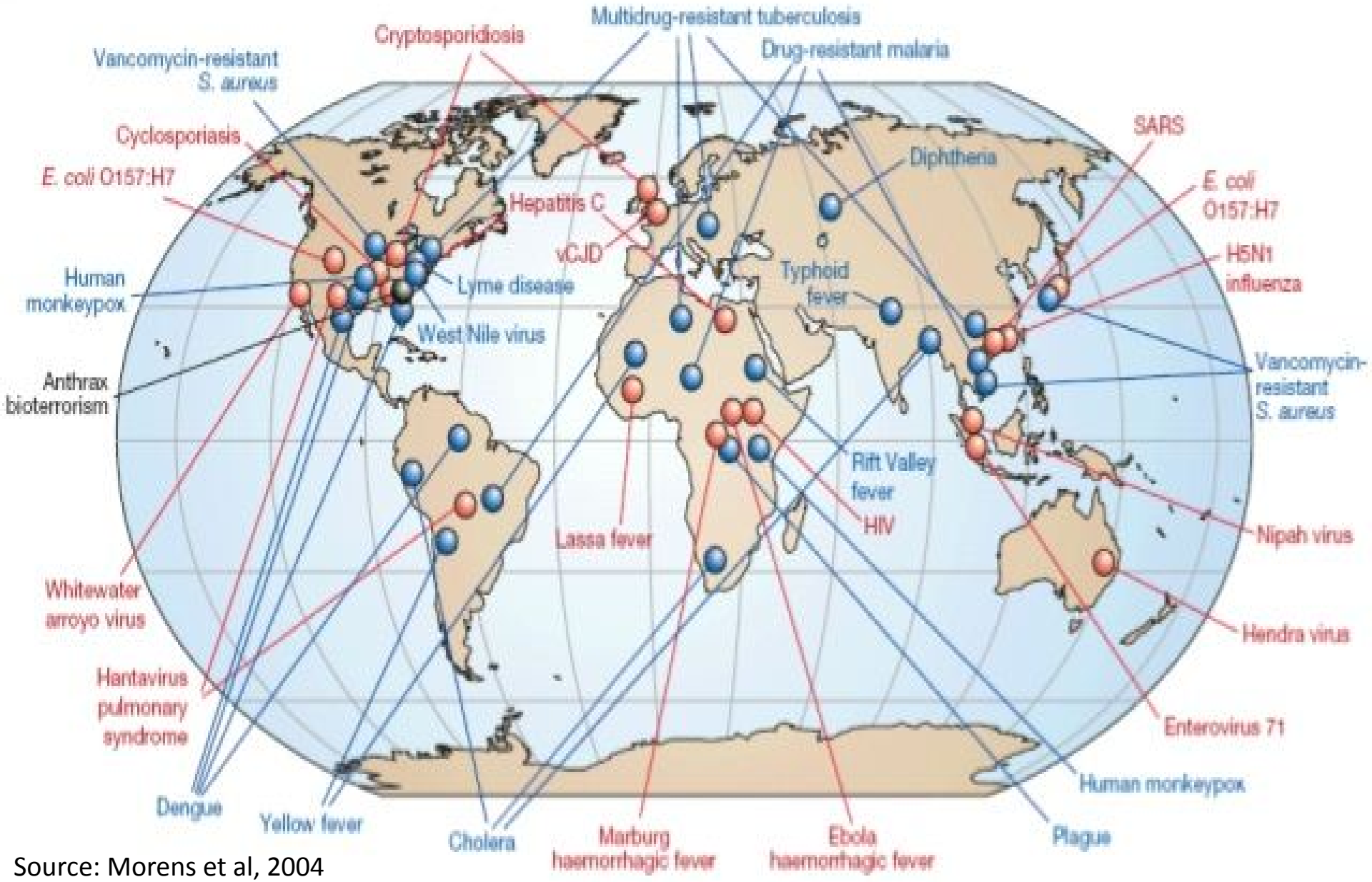
Organized by Harvard Kennedy School Indonesia Program

Scope

- Coping with national and global pandemics
- Healthcare resource coverage
- Data-driven, evidence-based public health policies

Background

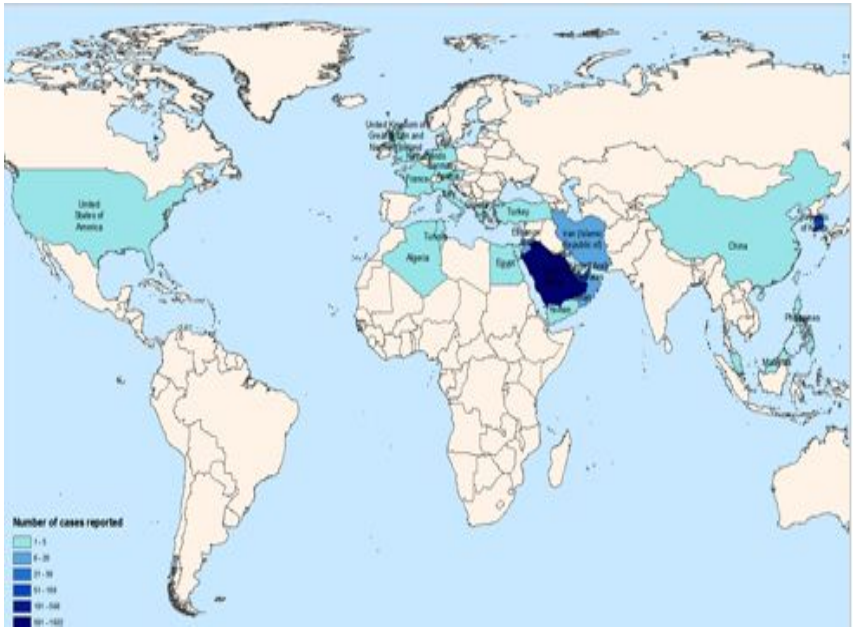
Infectious Disease Emergence at Global level



Source: Morens et al, 2004

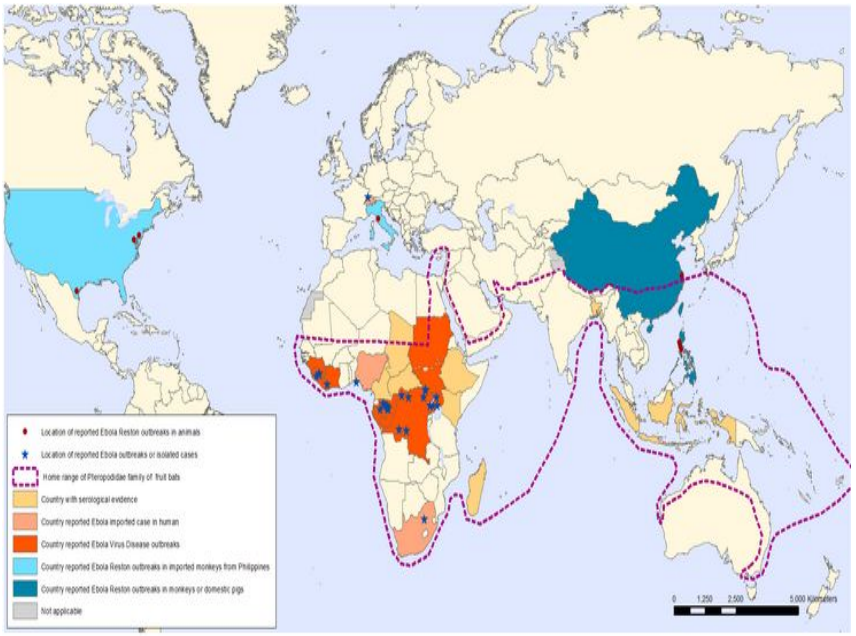
Background (1)

MERS CoV



1,368 human cases with 487 deaths (as of July 7, 2015)

Ebola

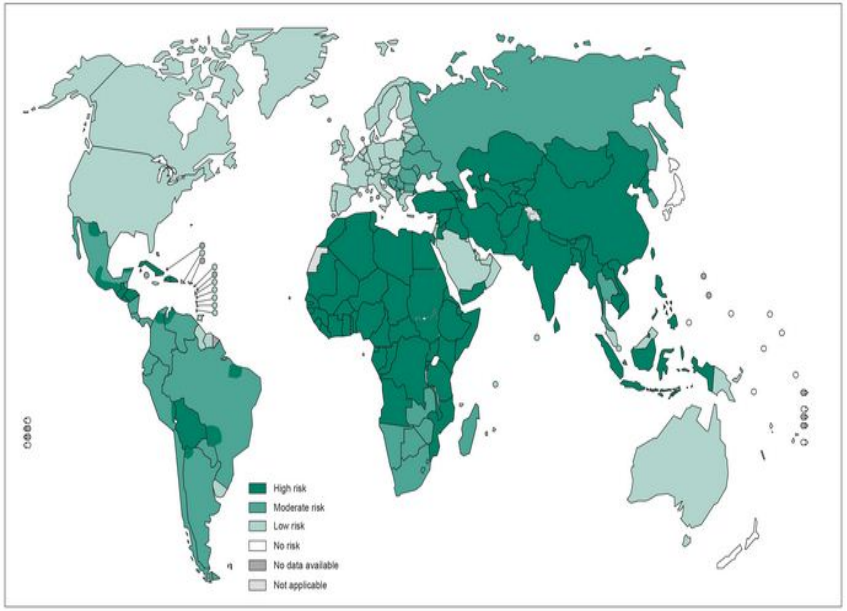


27,898 cases with 11,296 deaths (as of Aug 2, 2015)

Source: WHO, 2015

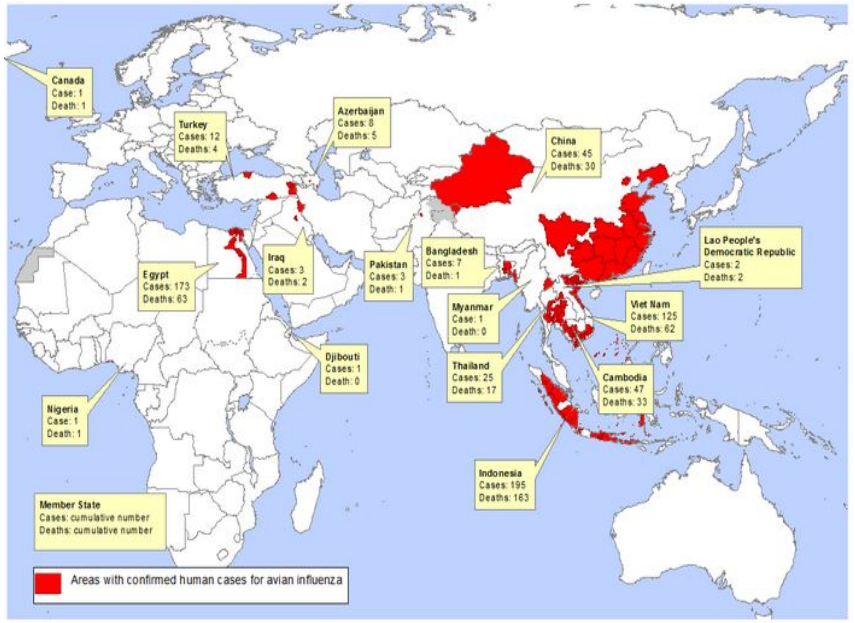
Background (2)

Rabies



1,066 human cases around the world (2013)

Avian Influenza

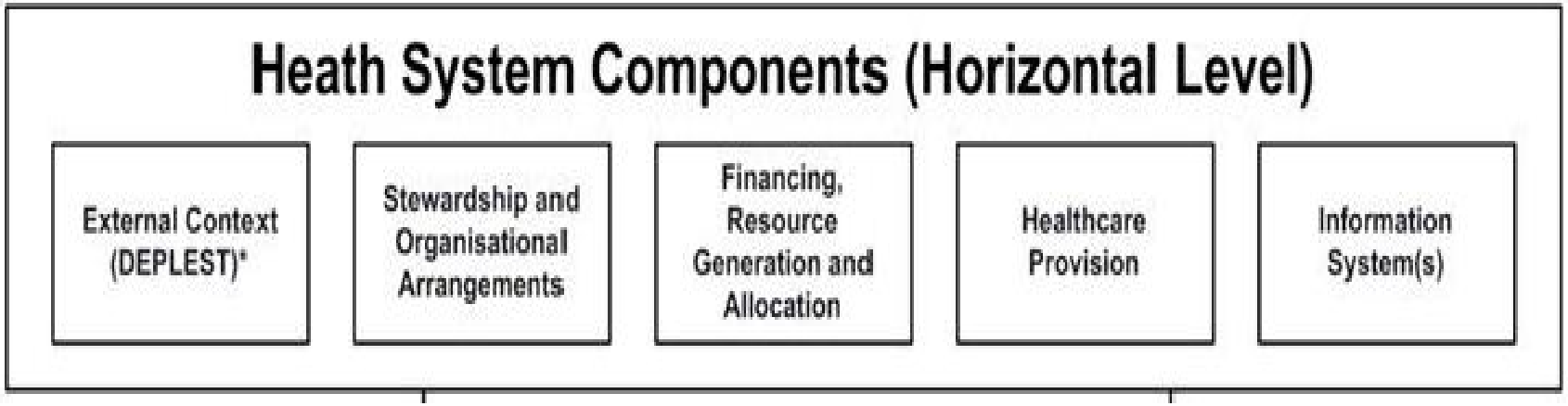


844 cases with 449 deaths (as of July 17, 2015)

Source: OIE, 2013; WHO, 2015

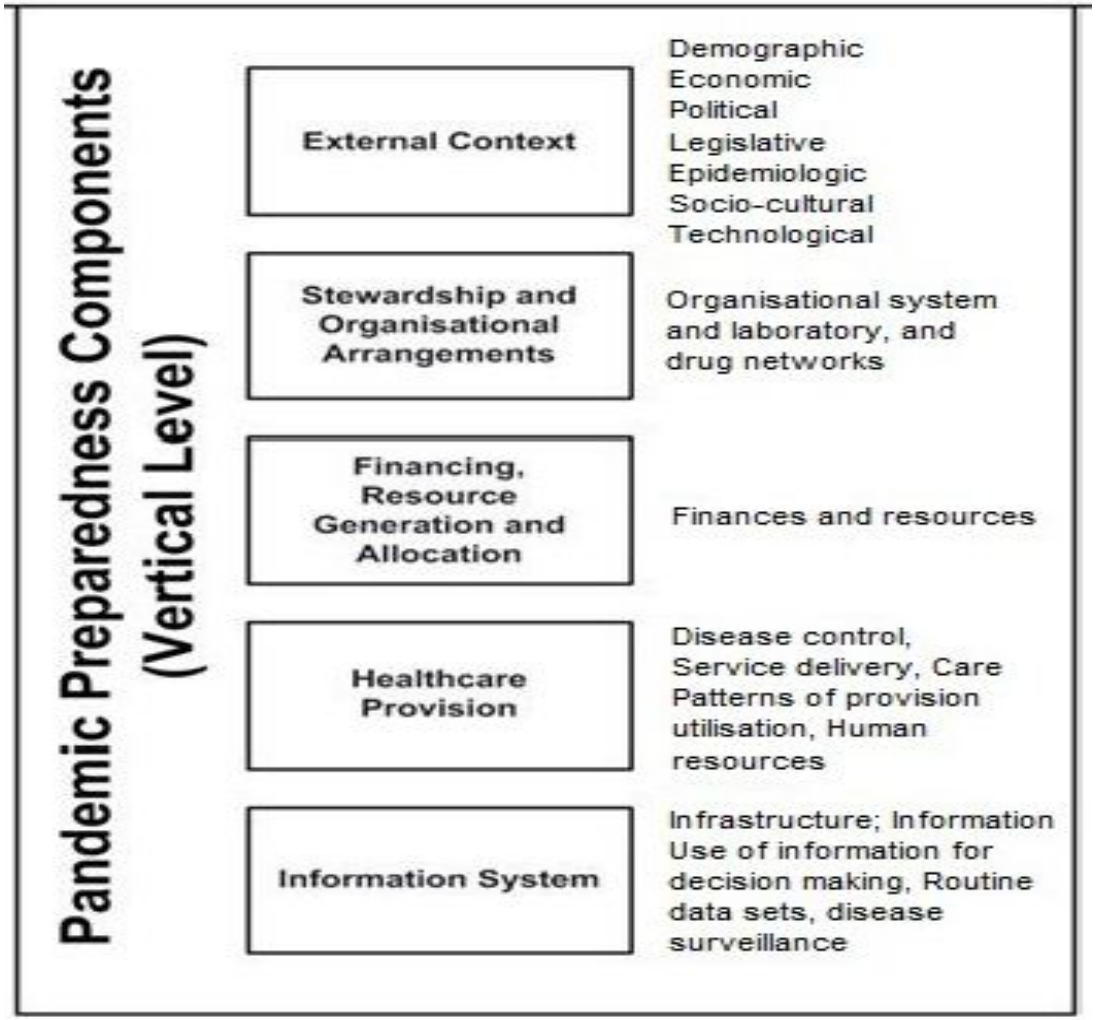
Building Preparedness (Approach)

Health System Components
(Systemic Rapid Assessment Toolkit - SYSRA) (1)



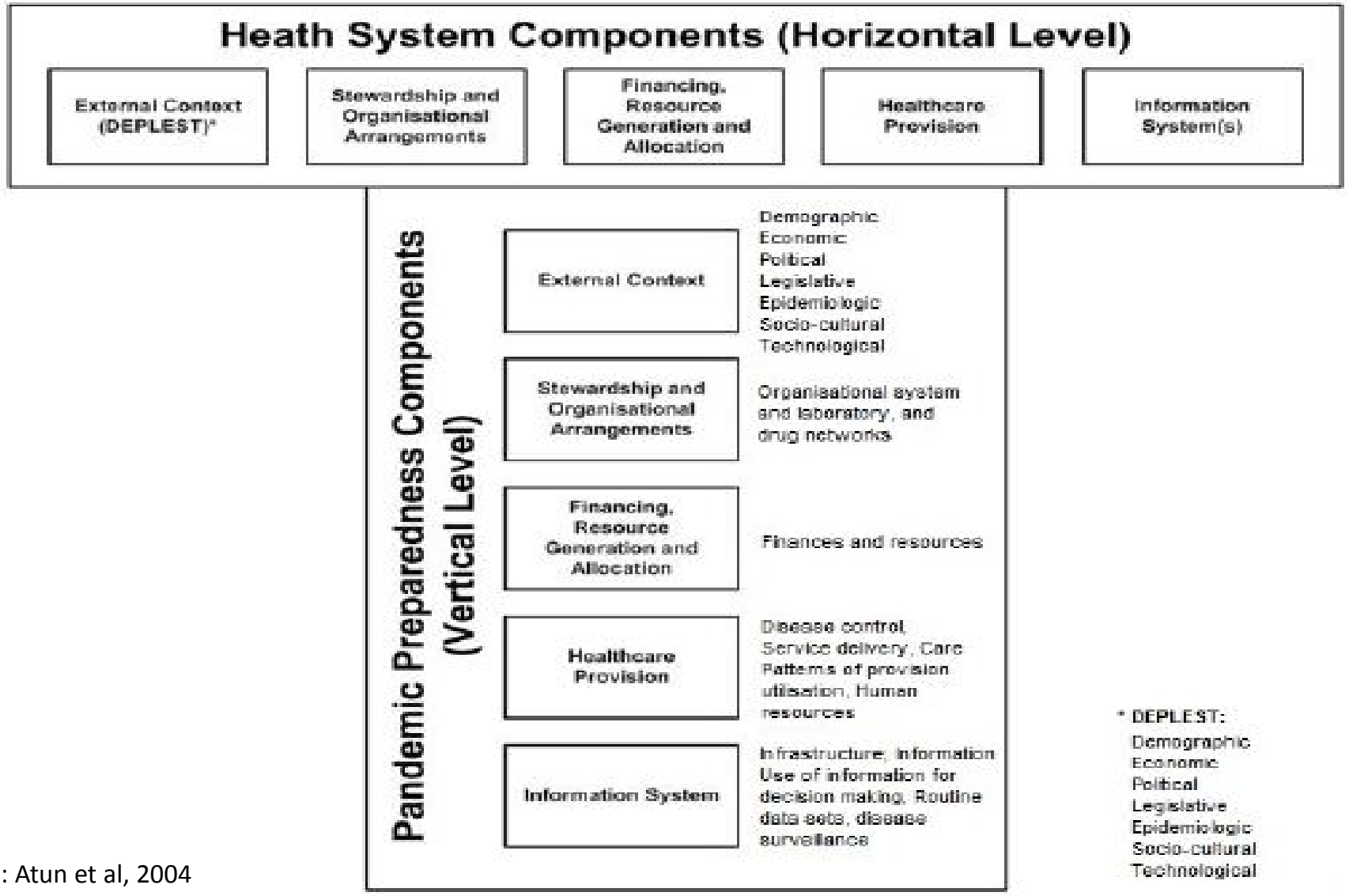
Source: Atun et al, 2004

Pandemic Preparedness Components
(Systemic Rapid Assessment Toolkit - SYSRA) (2)



Source: Atun et al, 2004

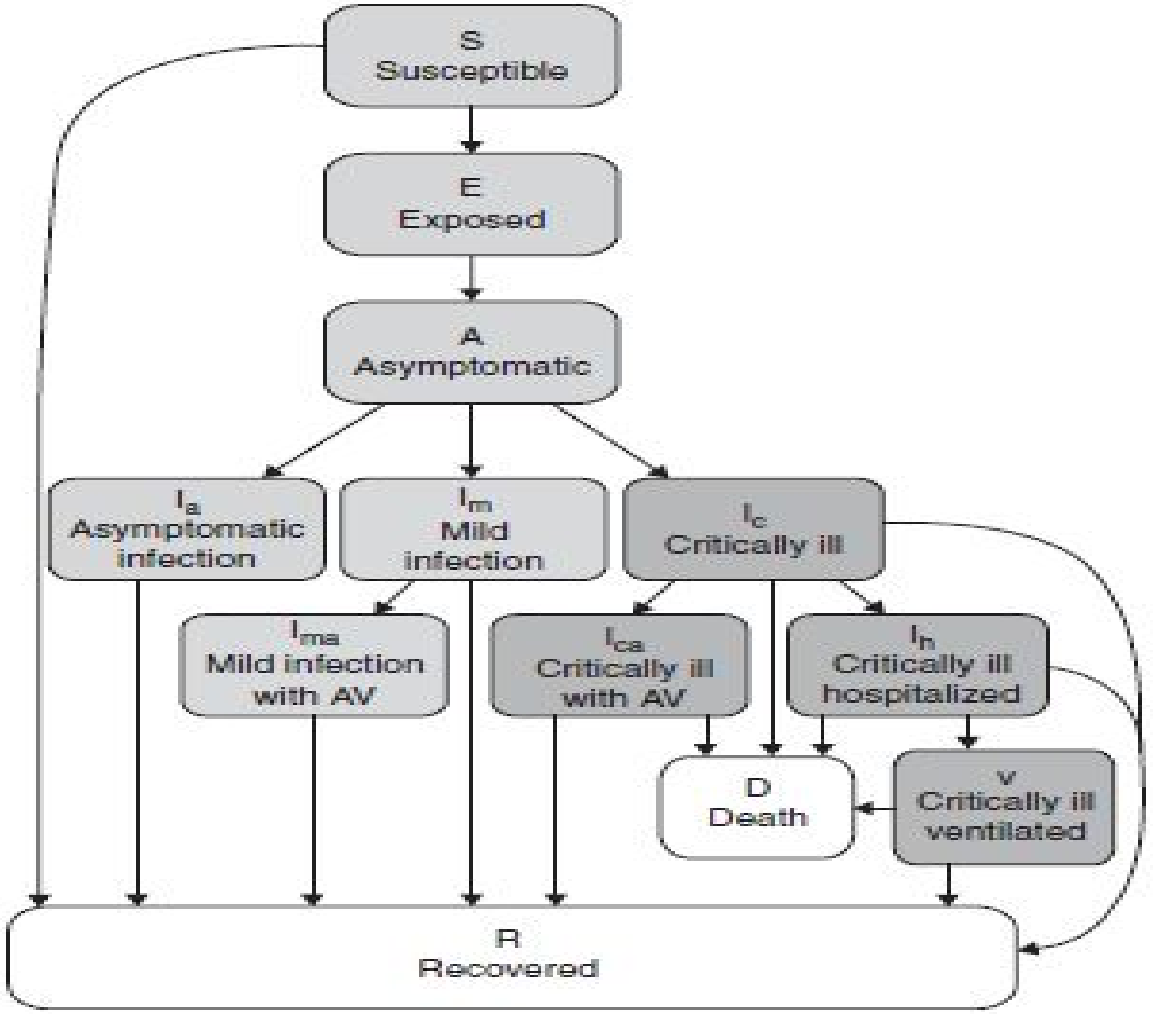
Components of the Systemic Rapid Assessment



Source: Atun et al, 2004

The SEIR Model

for Pandemic Influenza Transmission



Source: Brauer, 2006

Building Preparedness (Facts)

Indicators of Health System Context

	Cambodia	Indonesia	Lao PDR	Taiwan	Thailand	Viet Nam
Population (in thousands)	14,197	228,864	5,759	22,880	63,444	86,206
Human Development Index*	0.575	0.726	0.608	0.93 2005	0.786	0.718
GDP per capita (current US$)	512 #	1,592 #	591 #	16,740 &	3,258 #	708 #
Adult literacy rate (%)	73.6 2004	90.4 2004	68.7 2001	96.1 2003&	92.6 2000	90.3 1999
Life expectancy at birth (years) both sexes	62	68	60	77.89	72	72
Hospital beds (per 10,000 population)	1 2004	5.2 2005^	12 2005	57.3 ^	21.4 2005^	26.6
Physicians density (per 10,000)	2 2000	1 2003	4 2004	16 2007	4 2000	6 2002
Nursing and midwifery personnel density (per 10,000)	9 2000	8 2003	10 2004	43.1 2007	28 2000	8 2002
Total expenditure on health as percentage of GDP	6	2.2	3.6	6.1	3.5	6.6
Per capita total expenditure on health (US$)	30	34	22	970 2005	113	46
Skilled birth attendance (%)	44	66	19	N/A	97	88

Source: Hanvoravongchai et al, 2010

Estimated Budget
Human Avian Influenza & Pandemic preparedness
in Million USD (USD per capita in parenthesis)

	2004	2005	2006	2007	2008
Cambodia*			0.034 (0.002)	1.48 (0.1)	3.02 (0.2)
Lao PDR			11.44 (2.0)	2.1 (0.4)	6.42 (1.1)
Indonesia			55.0 (0.2)	93.8 (0.4)	6.1 (0.0)
Taiwan	14.5 (0.6)	24.5 (1.1)	53.0 (2.3)	57.0 (2.5)	22.5 (1.0)
Thailand#		35 (0.6)	58 (0.9)	44 (0.7)	
Viet Nam#		82.2 (1.0)			

Source: Hanvoravongchai et al, 2010

Gaps/Surpluses for Selected Health System Resources

During Pandemic Influenza in Bali

	Scenario 1	Scenario 2
Human resources		
Physicians	151	−589
Nurses	−3943	−5264
SRRT	−8460	−8573
PPE		
Surgical masks	−9 000 231	−10 750 698
N95 masks	−74 912	−168 956
Treatment		
Hospital beds	−11	−3127
Ventilators	−130	−1112
Amoxicillin	521 410	335 672
Co-trimoxazole	44 791	−190 024
Antivirals	89 305	−52 185

The majority of health resources were focused in and around the Denpassar, capital city of Bali

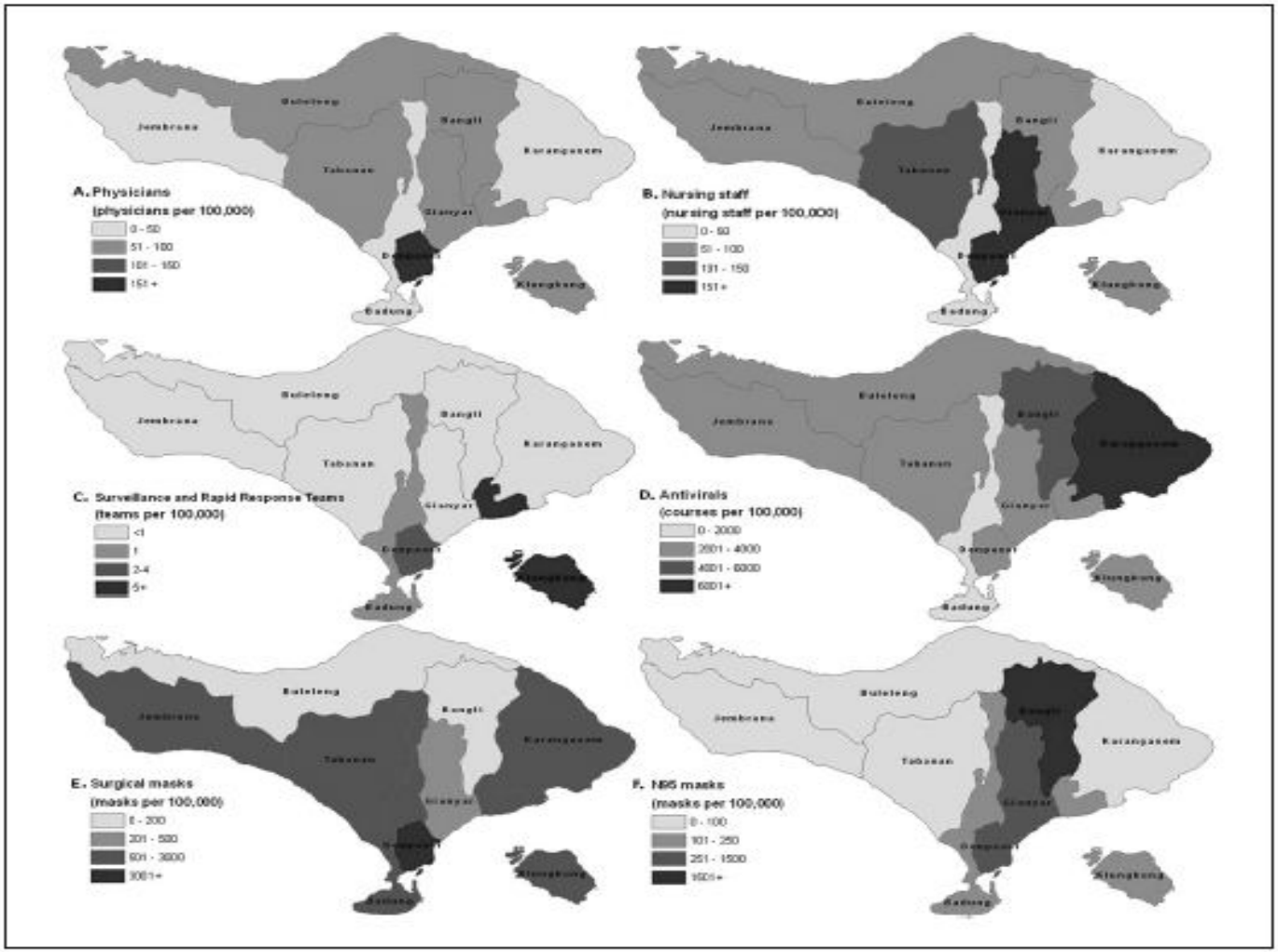
A relatively low pathogenicity pandemic influenza virus may be lead to an overall surplus for physicians, antivirals, and antimicrobials

A more pathogenic virus would lead to gaps in every resource except antimicrobials

Source: Adisasmito, 2011

Distribution of District Level Health System Resources

per 100,000 Inhabitants in Bali



Source: Adisasmito, 2011

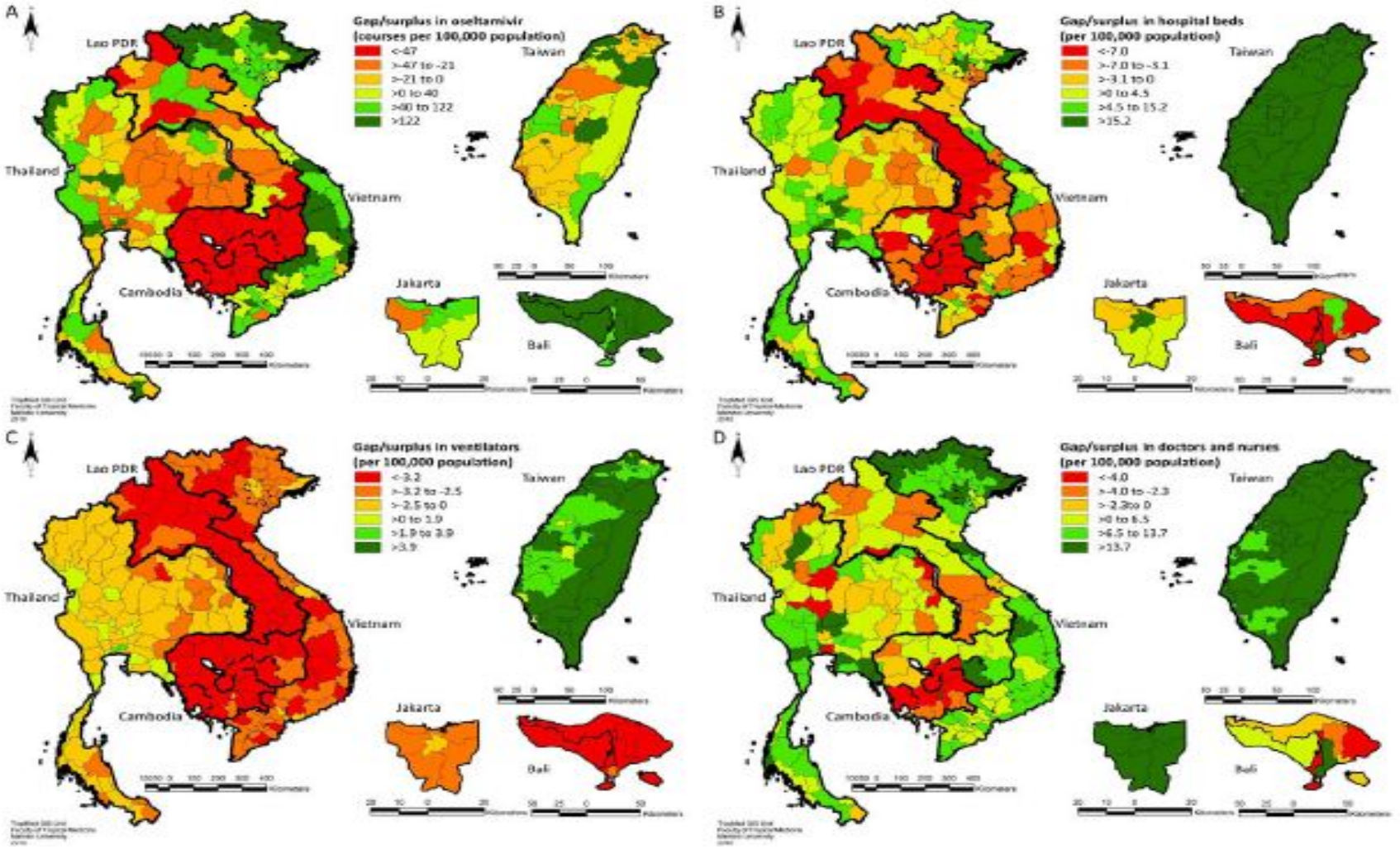
Pandemic Preparedness Status in Six Asian Countries

(Indonesia, Cambodia, Laos, Vietnam, Thailand, Taiwan)

a research by AsiaFluCap Project Consortium | www.cdrph.org/asiaflucap.php

James W. Rudge, Piya Hanvoravongchai, Ralf Krumkamp, Irwin Chavez, Wiku Adisasmito, Pham Ngoc Chau, Bounlay Phommasak, Weerasak Putthasri, Chin-Shui Shih, Mart Stein, Aura Timen, Sok Touch, Ralf Reintjes, Richard Coker. **Health System Resource Gaps and Associated Mortality from Pandemic Influenza across Six Asian Territories**. PlosONE, 2012 7(2): e31800

Geographical Distribution of Estimated Health System Resource Gaps for a Modeled Pandemic Influenza Scenario



Policy to Respond the Threats

Avian and pandemic human influenza policy in South-East Asia: the interface between economic and public health imperatives

Indonesia and Vietnam introduced poultry vaccination programs for avian and human pandemic influenza (HPAI) control, whereas Thailand did not.

All three countries adopted similar strategic policies for antiviral stockpiling.

Economic imperatives associated with poultry production, rather than public health imperatives, were key in poultry vaccine policy formulation for HPAI in Indonesia, Thailand and Vietnam

These policy differences raise questions around regional coherence of policies and the pursuit of an agreed overarching goal: eradication or mitigation

Source: Pongcharoensuk, Adisasmito, Sat, et al 2011

Conclusion

Health System Resilience is varied across countries

depended upon

- Resource availability
- Pathogenicity of the agent
- Access to healthcare
- Quality of healthcare

Who cares about regional resilience?

Suggestion

The policy makers should utilize the science to ascertain health system and its component to address emerging pandemic threats

The policy makers should consider national interest and other national strategic factors

Needs global-to-local concerted & harmonized actions

References

- Morens, David M., Gregory K. Folkers, Anthony S. Fauci. The challenge of emerging and re-emerging infectious diseases. *Nature* **430**, 242-249 (8 July 2004)
- WHO. 2015. Cumulative Number of H5N1 Cases, accessed on August 12, 2015 from http://www.who.int/influenza/human_animal_interface/EN_GIP_20150717cumulativeNumberH5N1cases.pdf?ua=1
- WHO. 2015. Ebola Situation Report, accessed on August 12, 2015 from http://apps.who.int/ebola/ebola-situation-reports WHO. 2015. MERS-CoV Summary of Current Situation, Literature Update, and Risk Assesment, accessed on August 12, 2015 from http://apps.who.int/iris/bitstream/10665/179184/2/WHO_MERS_RA_15.1_eng.pdf?ua=1
- OIE. 2013. Global Scenario of Rabies, accessed on August 12, 2015 from http://www.oie.int/doc/ged/D12937.PDF
- WHO. 2015. Mers CoV Maps and Epicurves. http://www.who.int/csr/disease/coronavirus_infections/maps-charts/en/
- WHO. 2014. Global Ebola Outbreak Risk. http://www.who.int/csr/disease/ebola/global_ebolaoutbreakrisk_20140818-1.png?ua=1
- WHO. 2013. Epidemiology and Burden Disease of Rabies. http://www.who.int/rabies/epidemiology/en/
- WHO. 2011. Avian Influenza Global Map. http://gamapserver.who.int/mapLibrary/Files/Maps/2003_2013_AvianInfluenza_GlobalMap_24Jan14.png

References

- Hanvoravongchai P, Adisasmito W, Chau P N, Conseil A, de Sa J, Krumkamp R, Monier-Jack S, Phommasack B, Putthasri W, Shih CS, Touch S, Coker R. **Pandemic influenza preparedness and health systems challenges in Asia: results from rapid analyses in 6 Asian countries**. BMC Public Health, 2010 10:322
- Krumkamp R, Kretzschmar M, Rudge J W, Ahmad A, Hanvoravongchai P, Westenhoefer J, Stein M, Putthasri W, Coker R. **Health service resource needs for pandemic influenza in developing countries: a linked transmission dynamics, interventions and resource demand model.**Epidemiol. Infect., 2010, 1-9
- Adisasmito W, Hunter BM, Krumkamp R, Latief K, Rudge JW, Hanvoravongchai P, Coker RJ. **Pandemic Influenza and Health System Resource Gaps in Bali: An Analysis Through a Resource Transmission Dynamics Model.** Asia Pac J Public Health. 2011 Nov 14
- Pongcharoensuk P, Adisasmito W, Sat LM *et al*. Avian and pandemic human influenza policy in South-East Asia: the interface between economic and public health imperatives. *Health Policy Plan* 2011; **27**:374–383.
- James W. Rudge, Piya Hanvoravongchai, Ralf Krumkamp, Irwin Chavez, Wiku Adisasmito, Pham Ngoc Chau, Bounlay Phommasak, Weerasak Putthasri, Chin-Shui Shih, Mart Stein, Aura Timen, Sok Touch, Ralf Reintjes, Richard Coker. **Health System Resource Gaps and Associated Mortality from Pandemic Influenza across Six Asian Territories**. PlosONE, 2012 7(2): e31800

Thank you

VIET NAM

COPING WITH HEALTH CRISES

Dr. Tham Chi Dung, MD., PhD.
Ministry of Health, Vietnam

Presentation agenda

1. Background
2. Pandemic Threats
3. Coping with Health Crises
4. Key to Successes

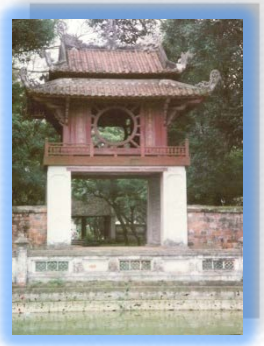
1 - Background

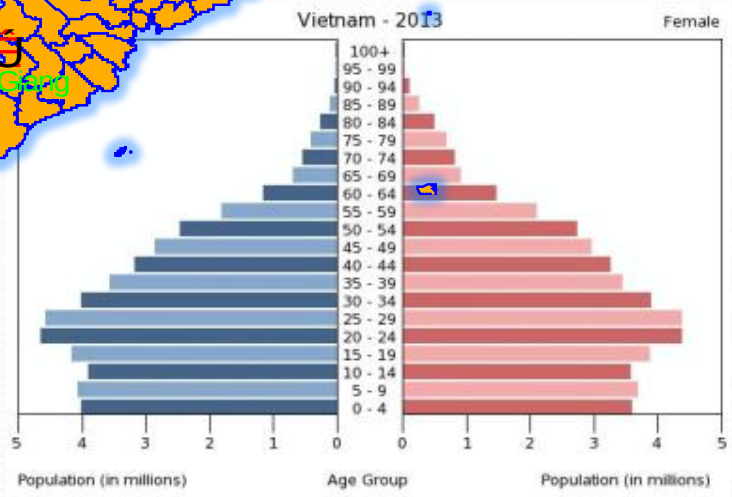
- Area *332,600 km2*
- Provinces: *63*
- Districts/precincts *659*
- Communes/wards *10,732*
- Climate *Tropical/Sub-tropical*
- Official language: *Vietnamese*

- 54 ethnicities (Kinh >85% pop.)
- Population: 92 millions/2013
- Urban: 25.9%/Rural: 74.1%
- Male: 49.1%/Female 50.9%.
- Pop density 247.9 inhabitants/km2
- Pop. growth rate: 1.02%

- Population 91.7 million/2013
- GDP $170.0 billion/2013
- GDP growth 5.3%/2013
- Inflation 6.6%/2013
- Per capita income $1,910/2013

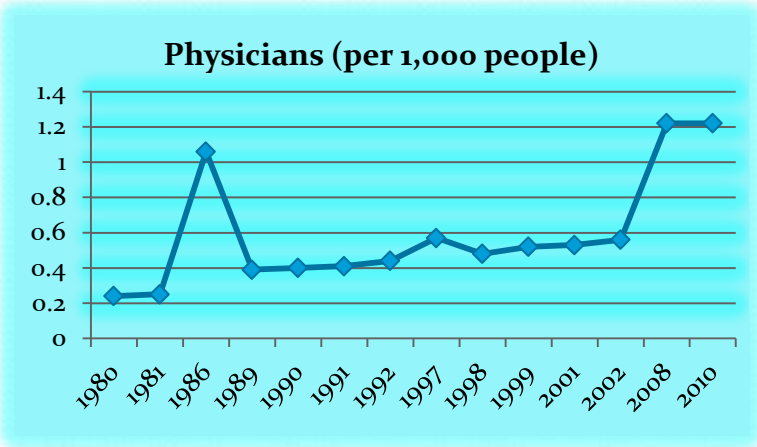
- Natural resources: Coal, crude oil, zinc, copper, silver, gold, manganese, iron
- Agriculture and forestry (21.8% of GDP, 2004)



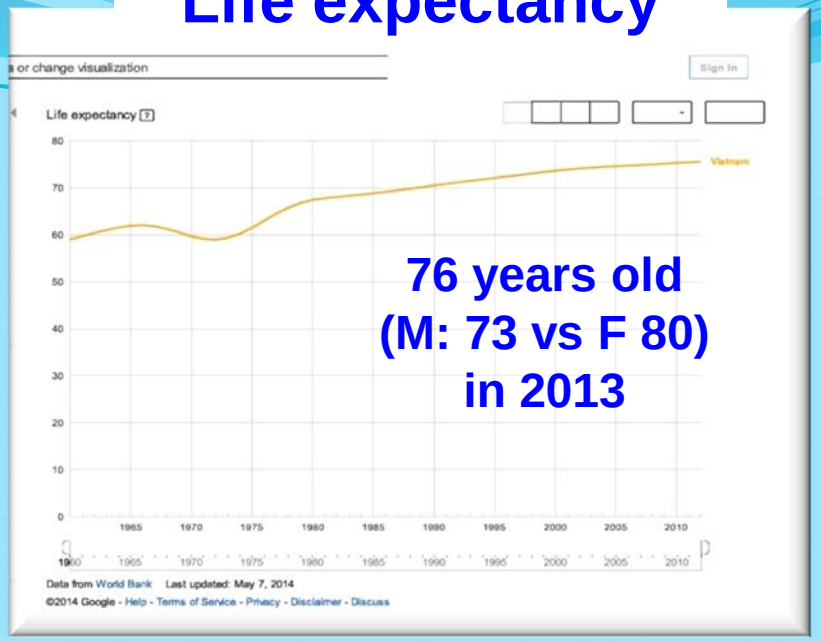


Health statistics

- Life expectancy at birth: 76 years
  - Male: 73 years vs Female: 80 years
- Fertility rate: 1.7
- Infant mortality rate: 37/1,000
- Mortality rate in children<5: 24/1,000
- Maternal mortality rate: 49/100,000 live birth.
- Child malnutrition: 20%

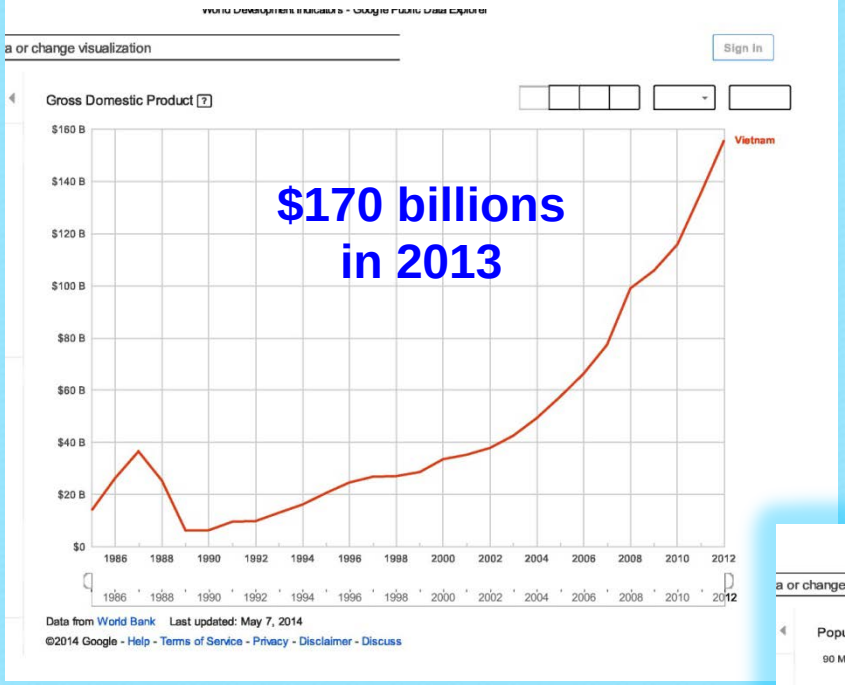


Life expectancy



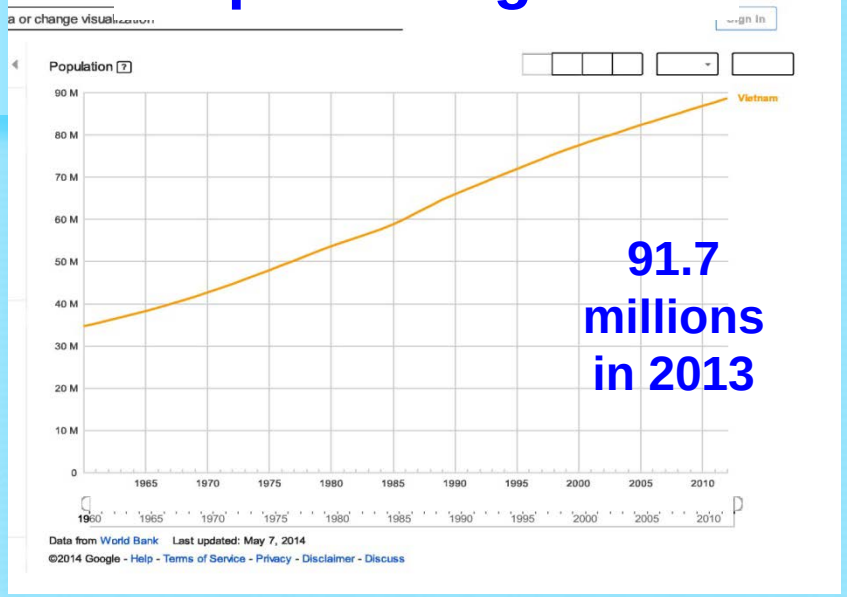
76 years old
(M: 73 vs F 80)
in 2013

GDP



$170 billions
in 2013

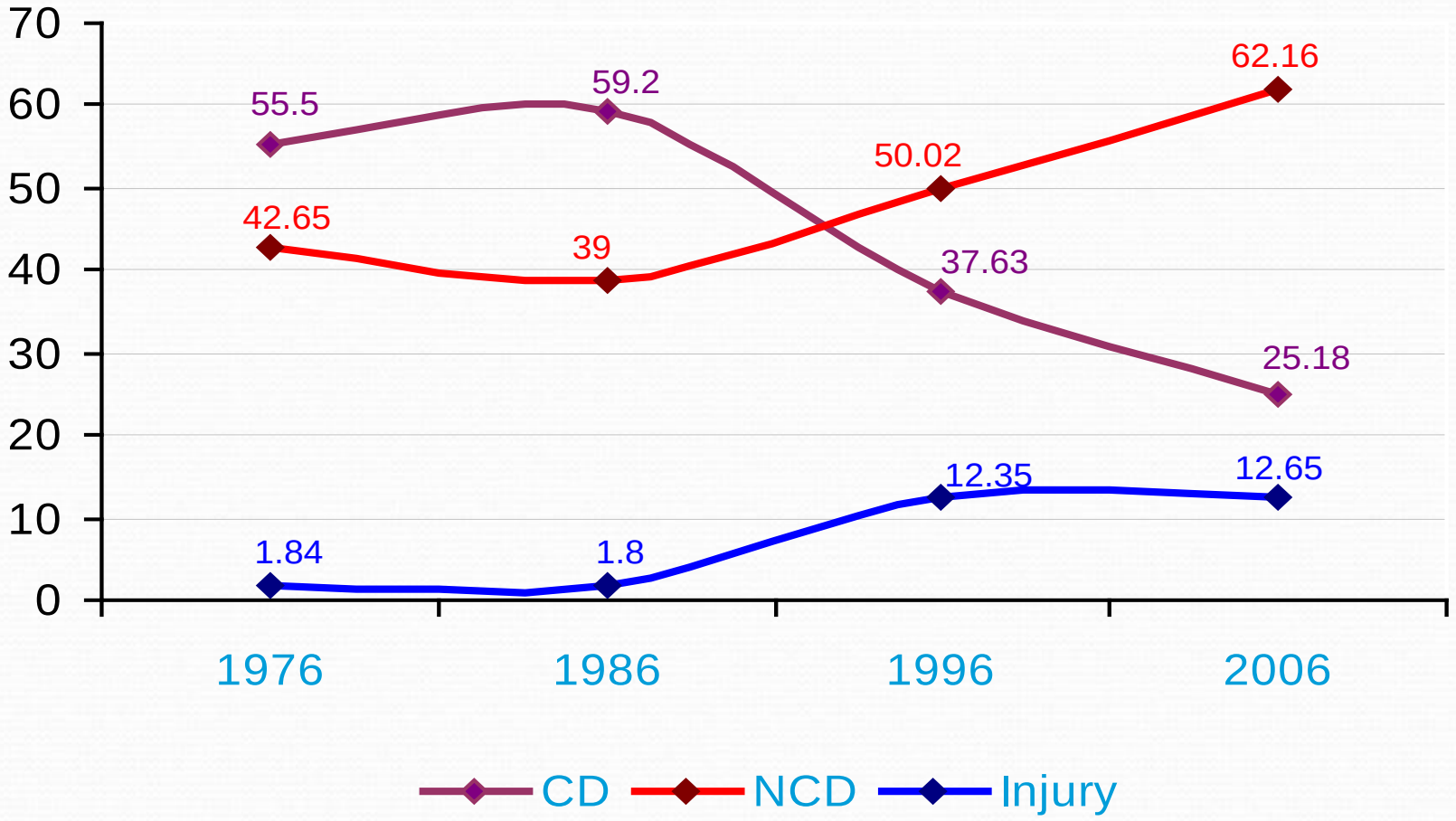
Population growth



91.7
millions
in 2013

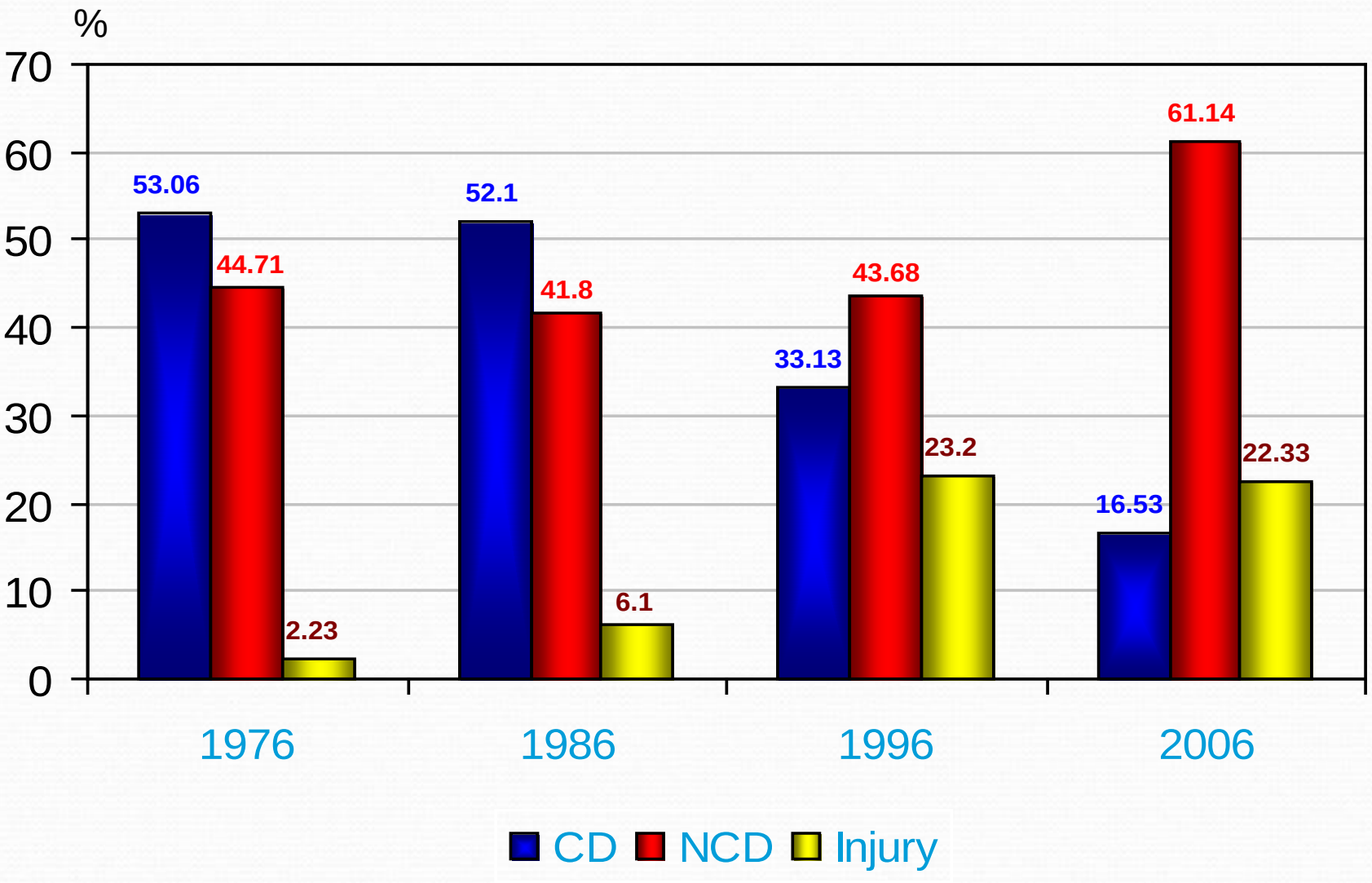
Trend of disease morbidity

Annual Health Statistics, MOH



Trend of disease mortality

Annual Health Statistics, MOH



DISEASE PATTERN, 2010

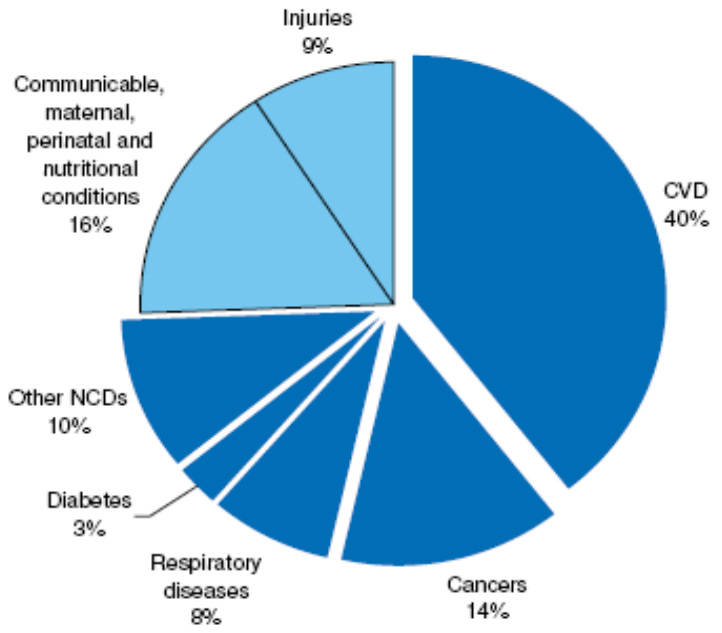
2010 total population: 87 848 445
Income group: Low

NCD mortality		
2008 estimates	***males***	***females***
Total NCD deaths (000s)	208.0	222.0
NCD deaths under age 60 (percent of all NCD deaths)	26.4	19.4
Age-standardized death rate per 100 000		
All NCDs	687.2	508.2
Cancers	137.3	94.3
Chronic respiratory diseases	76.6	45.5
Cardiovascular diseases and diabetes	381.5	298.2

Behavioural risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Current daily tobacco smoking	40.4	1.0	20.1
Physical inactivity	14.2	15.6	14.9

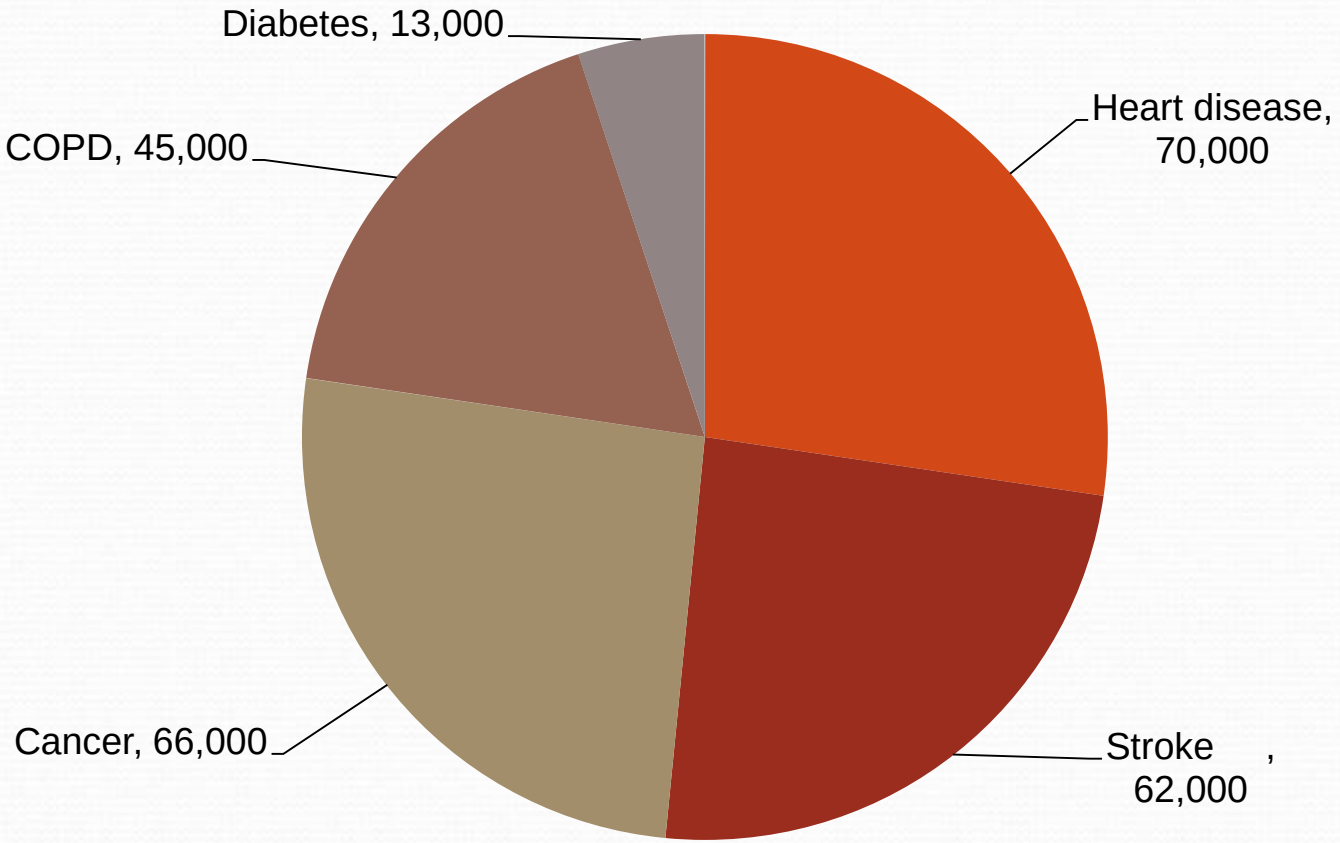
Metabolic risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Raised blood pressure	36.0	30.0	33.0
Raised blood glucose	6.6	7.2	6.9
Overweight	9.5	10.9	10.2
Obesity	1.2	2.1	1.7
Raised cholesterol	...	...	...

Proportional mortality (% of total deaths, all ages)

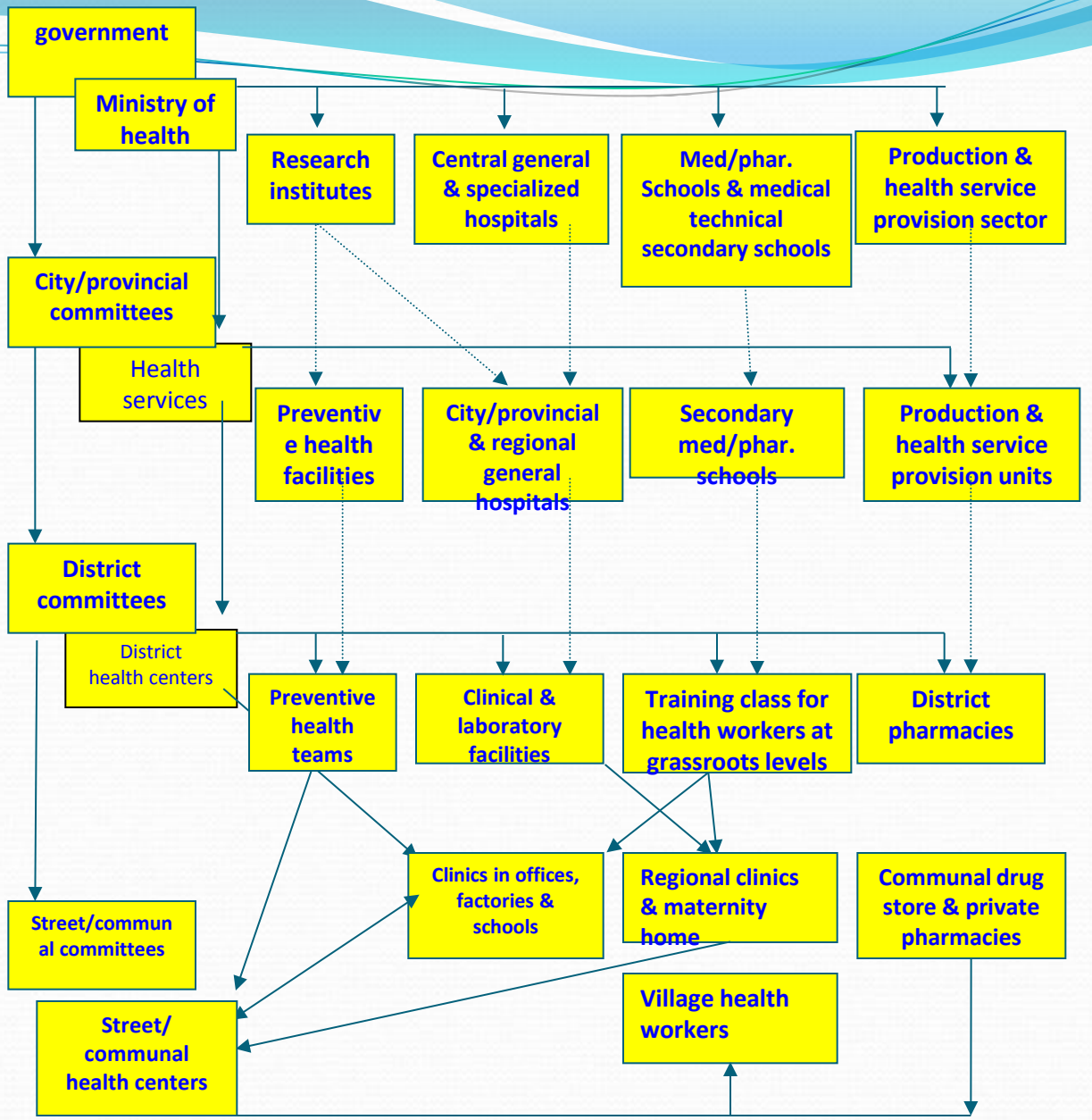


NCDs are estimated to account for 75% of all deaths.

Vietnam: 353,000 NCDs deaths/year (2013)



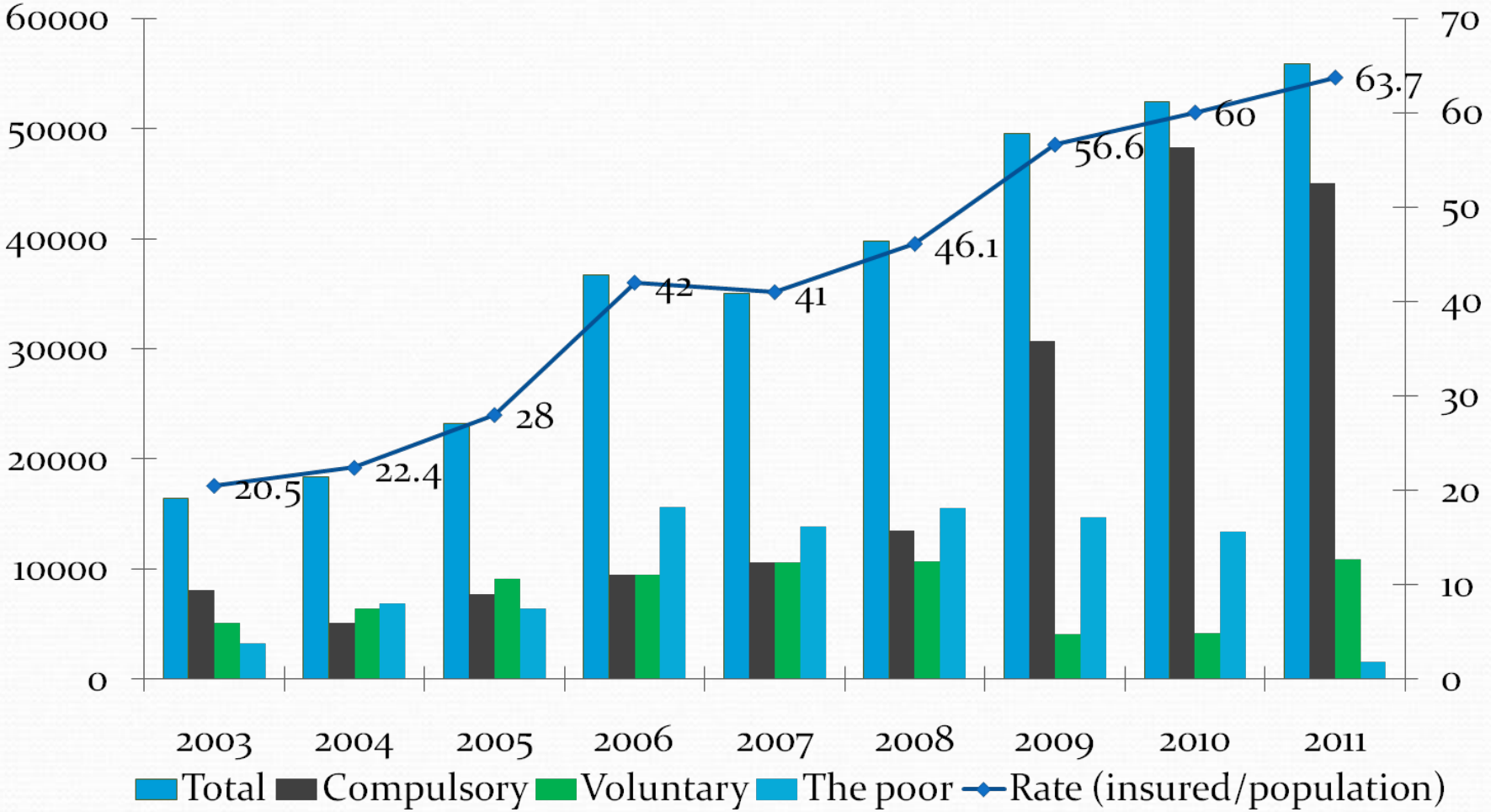
Organization of the health system in Vietnam



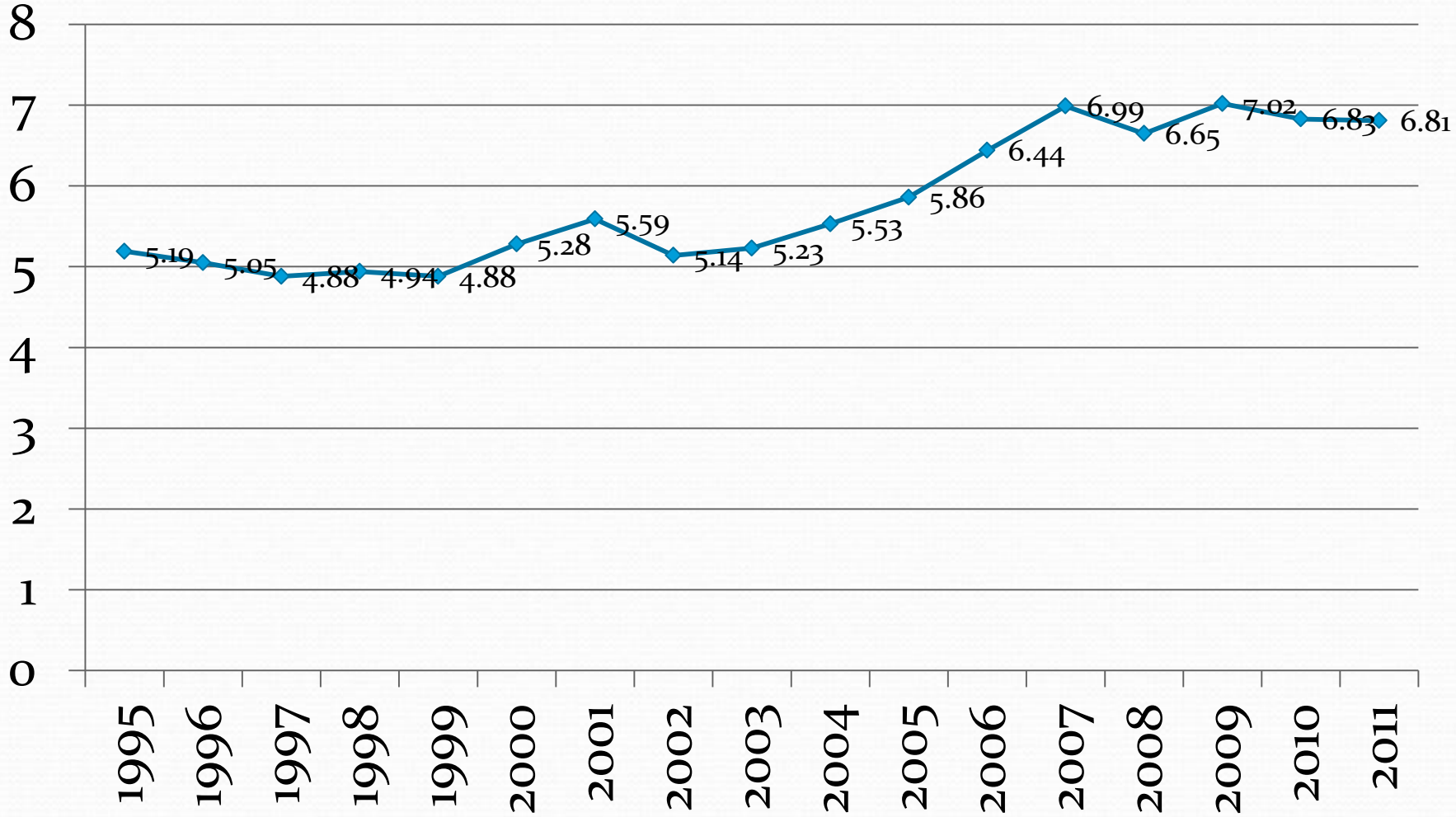
Number of Health Insurance contracted health care providers

	2010	2011	2012
Government providers	1.900	1.922	2.129
Private providers	276	381	324
Total	**2.176**	**2.303**	**2.453**

Percentage of HI coverage, 2003-2011

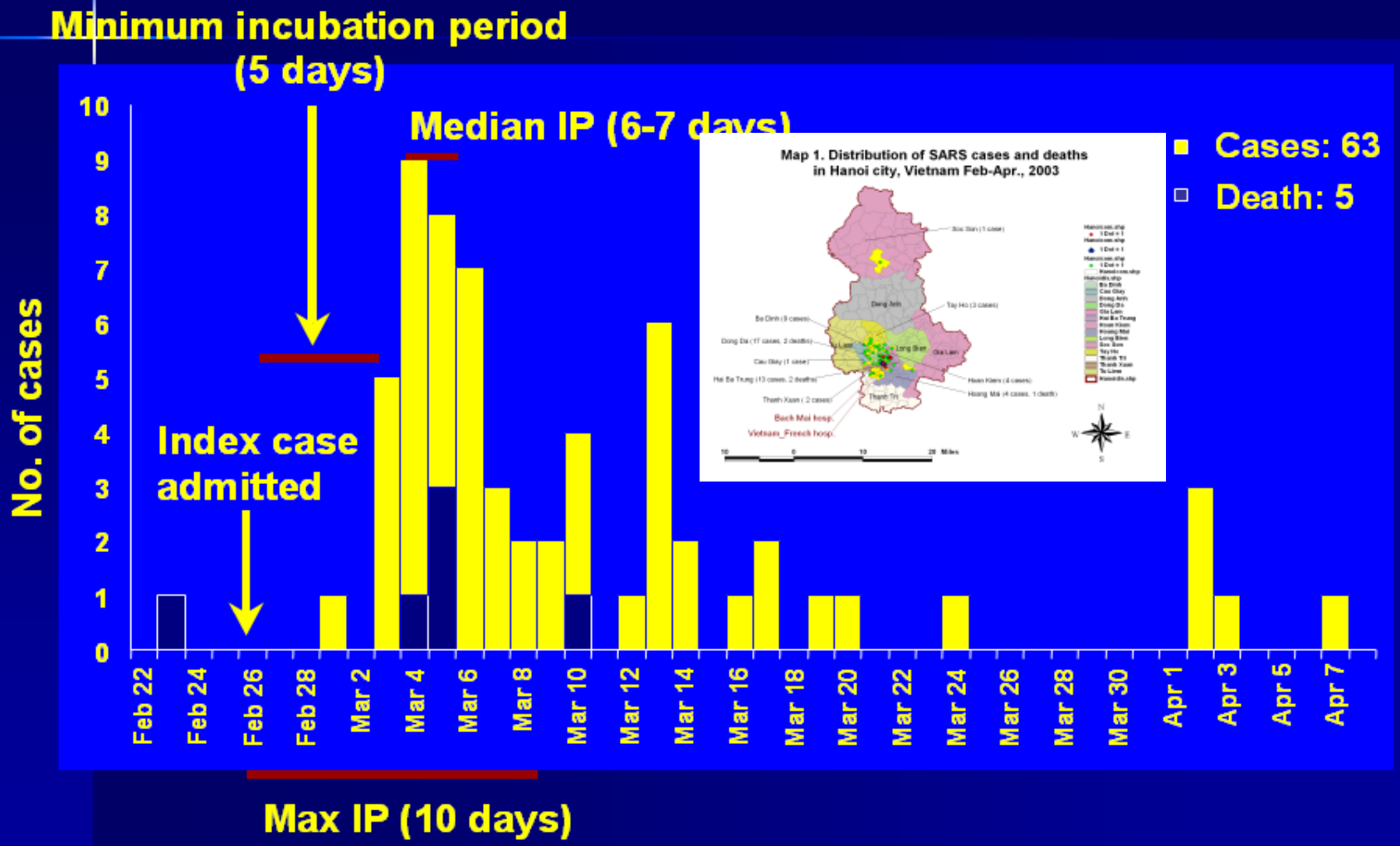


Health expenditure, total (% of GDP)



2 - Pandemic Threats

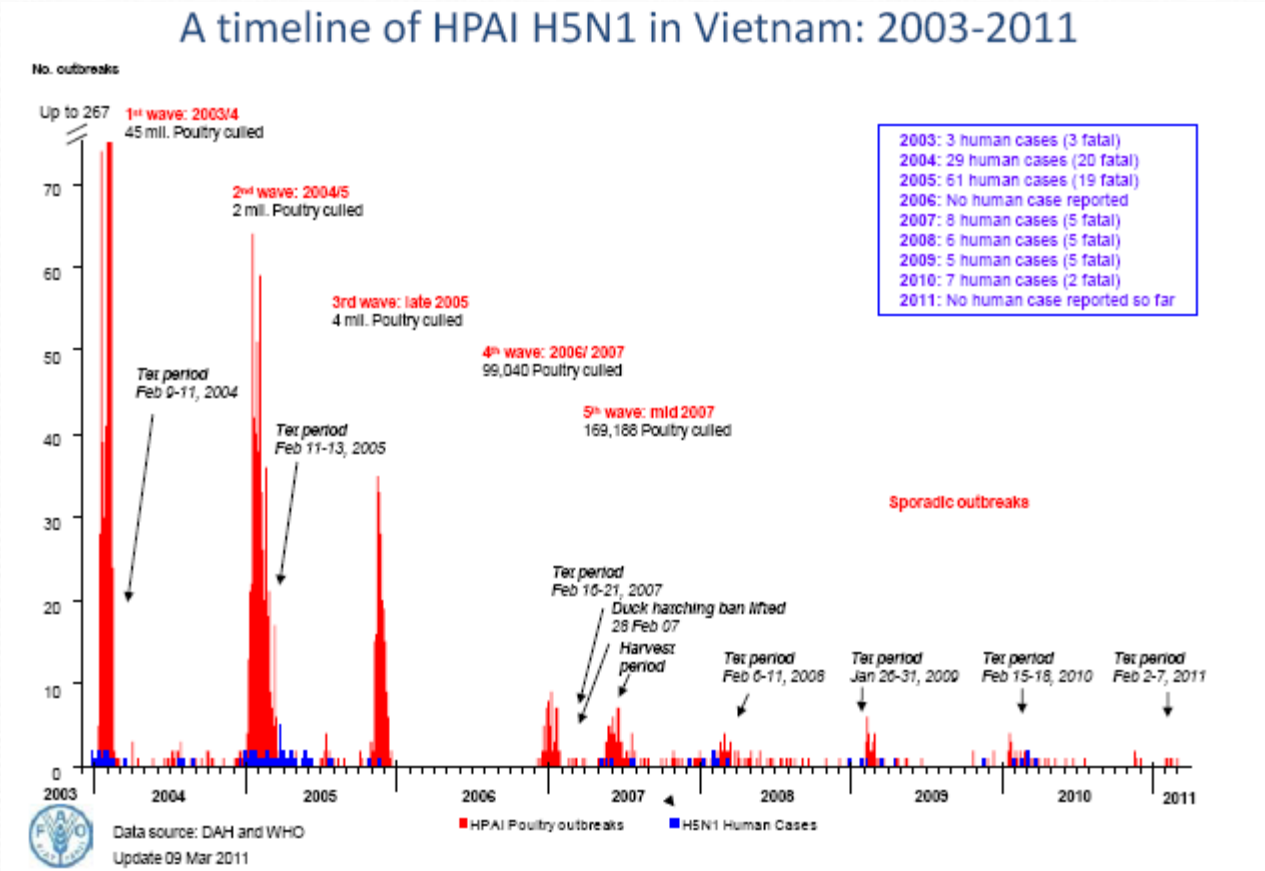
SARS cases by date of onset, Vietnam 2003



Avian Influenza A/H5N1 in Vietnam (2004-2011)

Table 1 Human cases of Influenza A(H5N1) in Vietnam (cases/ fatalities)

2003	2004	2005	2006	2007	2008	2009	2010	2011[1]	Total
3/3	29/20	61/19	0/0	8/5	6/5	5/5	7/2	0/0	119/59



Dr.

Ebola

- **WHO:** Up to 25 May 2015, World reported 27.013 cases, in which 11.134 deaths among 3 countries (Guinea, Sierra Leone and Liberia). Liberia declared end of Ebola outbreak in May 9, 2015

- **Vietnam:** no any case reported

MERS-CoV

- **WHO:** Up to 28 May 2015, World reported 1.139 cases, in which 431 deaths. MERS-CoV cases reported in 26 countries. South Korea declared end of MERS-CoV outbreak in July 28, 2015 since May, 20 2015 with 186 cases with 36 deaths

- **Vietnam:** no any case reported

Lessons learnt (1)

1. **Professional leadership across all departments** of the health sector has been a key enabler in the success of developing and implementing national plans and in advancing legislation to improve prevention and control of communicable diseases.
2. **From provinces down, lower levels** of the health system require further strengthening.
3. **Issues of staff recruitment, retention and training** limit the capacity of the preventive medicine system.
4. **The capacity to respond to large-scale events and multiple, simultaneous public health threats** would be improved with further integration of parallel systems for addressing natural disasters and pandemics at provincial levels and below.

Lessons learnt (2)

1. **Simulation exercises** have proved important in mobilizing authorities, the health sector and communities.
2. **Pandemic preparedness planning** within (and beyond) the health sector has focused on health issues with operational continuity aspects yet to be strengthened and tested
3. **Evaluation of efforts across the full range of responses** is required to assess effectiveness and improve future planning.
4. **A culture of reflection after action - documenting** what worked and what didn't work - should be promoted at all levels of the health system so that health managers have the necessary information to improve planning, preparedness, response and mitigation measures.
5. **Flexibility is needed** in responses to HPAI, pandemic influenza and emerging infectious diseases.

3 – Coping with Health Crises

- **Objective:** To **reduce the risk to humans and animals from emerging and re-emerging infectious diseases** by:
  1. **Controlling infectious diseases** at source and implementing appropriate measures to prevent disease emergence/re-emergence;
  2. **Detecting and responding rapidly and appropriately** to cases of new and emerging high impact diseases in both animals and humans;
  3. **Enhancing preparations** for the health and non-health consequences of any severe pandemic disease of humans.

Control and Prevention Strategies

- **Strategy I** - Enhanced Coordination Activities
- **Strategy II** – HPAI control and eradication and strategy for emerging infectious diseases in the Agricultural Sector
-
- **Strategy III** - Pandemic Preparedness and influenza and emerging infectious disease prevention in the Health Sector

Strategy I - Enhanced Coordination Activities

1. National coordination mechanisms
2. Support to central and provincial coordination
3. International cooperation and donor coordination
4. Strengthening engagement with civil society and the private sector
5. Communications, public awareness and behavioral change
6. Program monitoring and evaluation
7. Support for regional and international activities wil

Strategy II – HPAI control and eradication and strategy for emerging infectious diseases in the Agricultural Sector

1. A strategic approach to HPAI and other emerging diseases
2. Veterinary and animal production services
3. Disease control and prevention activities
4. Surveillance and epidemiological investigation activities
5. Modifications to the livestock sector
6. Communications and extension activities for the animal health and livestock production sectors

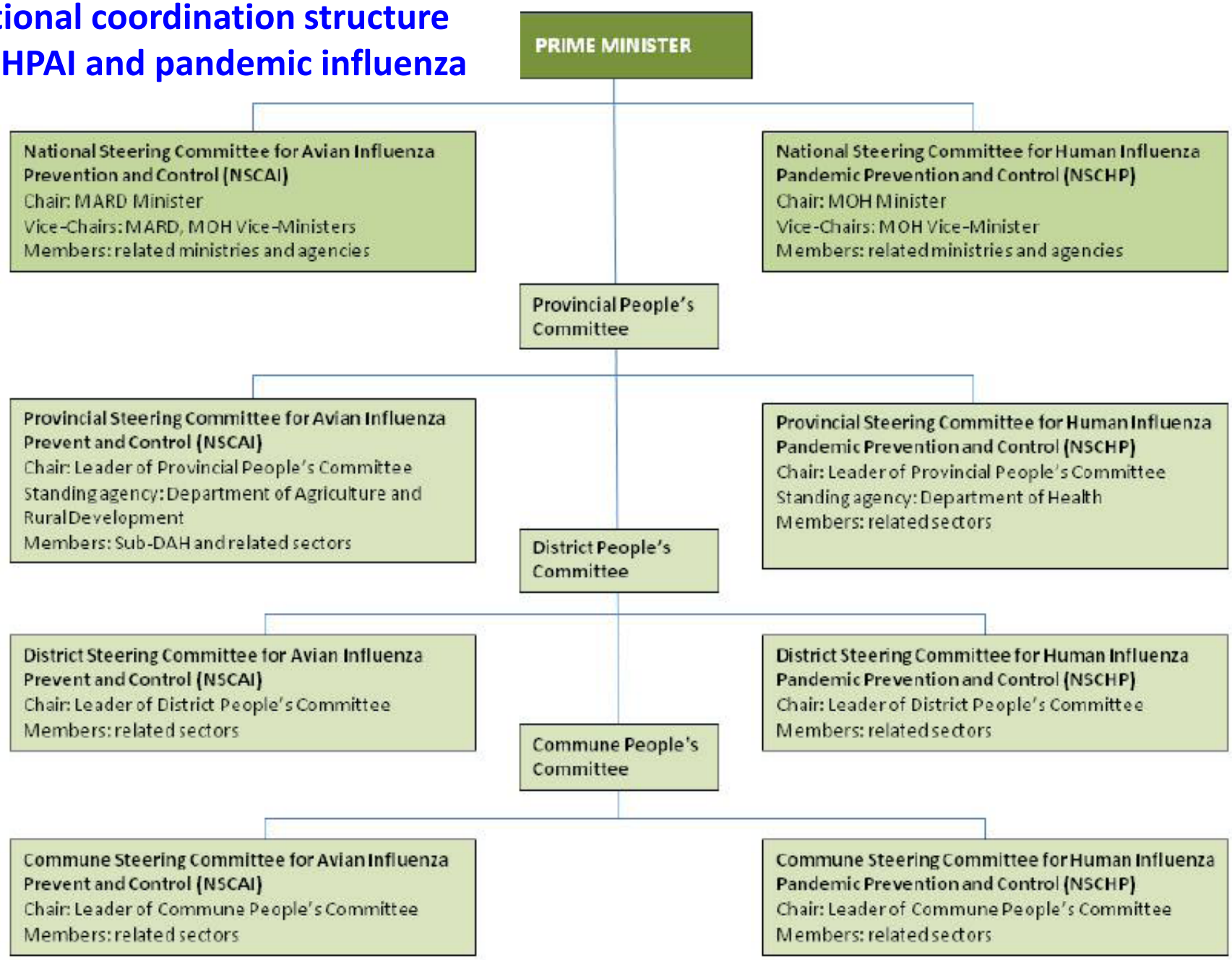
Strategy III - Pandemic Preparedness and influenza and emerging infectious disease prevention in the **Health Sector**

1. National preparedness for a new strain of influenza or another novel infectious disease Strengthening surveillance and response activities
2. Strengthening diagnostic capacity
3. Strengthening curative care and preventive health capacity
4. Improving research
5. Public awareness, behavioral change and other communications for the health sector

Key developments in national planning for emerging and reemerging infectious disease control

DATE	DEVELOPMENT	DETAILS
Jan 2004	Establishment of the National Steering Committee for Avian Influenza Control	Decision No. 13/2004/QD-TTg
Mar 2004	Establishment of the National Steering Committee for Human Influenza Pandemic Prevention and Control (evolved from the National SARS Steering Committee)	Decision No. 297/GDD-TTg
Oct 2005	Mass vaccination of poultry commences	
Nov 2005	National Preparedness Plan in Response to Avian Influenza Epidemic H5N1 and Human Influenza Pandemic	Approved by Prime Minister
Nov 2005	National Plan of Action on Human Influenza Pandemic Prevention and Control in Vietnam	Decision No. 38/2005/QD-BYT Approved by MOH
Jan 2006	Integrated National Plan for Avian Influenza Control and Human Pandemic Influenza Preparedness and Response, 2006-2008	RED BOOK
Feb 2006	Official decision for the National Steering Committee for Human Influenza Pandemic Prevention and Control revised	Decision No. 348/2006/QD-TTg
May 2006	Integrated National program for Avian and Human Influenza (OPI), 2006-2010	OPI (also known as the Green Book)
Nov 2007	Development of the Inter Ministerial Coordination Plan in Avian Influenza Control	Decision No. 1532/QD-TTg
Mar 2008	Avian and pandemic national strategy approved	
Jul 2008	Law of communicable diseases prevention and control	Effective since 1st Jul 2008 3 decrees and decisions of Prime Minister 17 circulars of MOH
2009	National Plan of Action for human influenza pandemic control in Vietnam	Decision No. 38/2005/QD-BYT Amended and supplemented in 2009
Jun 2009	Plan of Action for the Control of Influenza A(H1N1) Pandemic in Vietnam	Decision No. 2088/QD-BYT
Jul 2009	Prime Minister delegating the People's Committees of all levels to implement the task of communicable diseases prevention and control	Official Telegram No. 1245/CD-TTg

National coordination structure for HPAI and pandemic influenza



4 - Keys to Successes

1. Promptly responses
2. Leadership and political supports
3. Good public health system
4. Public acknowledgement of outbreak
5. Appropriate measures to control and prevent the outbreak
    a. Clinical diagnosis
    b. Lab diagnosis (PCR, Bio-safety level -3)
    c. Infection control skills
    d. Capacity to follow contacts and isolation
    e. Logistics

Cảm ơn

Thank you