Health Systems and Population Ageing in the Asia-Pacific Region: Challenges and Policy Options for the Future

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Overview

- Introduction – Asia-Pacific in Transition
- Demographic Transition
- Epidemiological Transition
- The Health Care Transition
- Comparative Health Systems Analysis
- Regional Challenges and Issues
- Healthcare Financing for Ageing Population
- Future Directions and Policy Options
- Conclusion

The Asia-Pacific in Transition

- Socio-economic
  - Rapid industrialization/technological changes
  - Rising affluence and consumption
  - Increasing privatization and corporatization
- Demographic
  - Rural-urban migration and travel
  - Fertility decline and family formation
  - Increasing longevity and ageing
- Epidemiological
  - New and re-emerging infectious diseases
  - Rise of chronic non-communicable diseases
  - “Double burden” → “Triple burden” of diseases

Lancet Series on Health in Southeast Asia: Overview on health and health-care, 2011

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Health in Southeast Asia 1

Health and health-care systems in southeast Asia: diversity and transitions

Virasakdi Chongsuvivatwong, Kai Hong Phua, Mui Teng Yap, Nicola S Pocock, Jamal H Hashim, Rethy Chhem, Siswanto Agus Wilopo, Alan D Lopez

Southeast Asia is a region of enormous social, economic, and political diversity, both across and within countries, shaped by its history, geography, and position as a major crossroad of trade and the movement of goods and services. These factors have not only contributed to the disparate health status of the region's diverse populations, but also to the diverse nature of its health systems, which are at varying stages of evolution. Rapid but inequitable socioeconomic development, coupled with differing rates of demographic and epidemiological transitions, have accentuated health disparities and posed great public health challenges for national health systems, particularly the control of emerging infectious diseases and the rise of non-communicable diseases within ageing populations. While novel forms of health care are evolving in the region, such as corporatised public health-care systems (government owned, but operating according to corporate principles and with private-sector participation) and financing mechanisms to achieve universal coverage, there are key lessons for health reforms and decentralisation. New challenges have emerged with rising trade in health services, migration of the health workforce, and medical tourism. Juxtaposed between the emerging giant economies of China and India, countries of the region are attempting to forge a common regional identity, despite their diversity, to seek mutually acceptable and effective solutions to key regional health challenges. In this first paper in the *Lancet* Series on health in southeast Asia, we present an overview of key demographic and epidemiological changes in the region, explore challenges facing health systems, and draw attention to the potential for regional collaboration in health.

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This is the first in a Series of six papers about health in southeast Asia

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Introduction

Southeast Asia consists of the ten independent countries located along the continental arcs and offshore archipelagos of Asia—Brunei, Singapore, Malaysia, Thailand, the Philippines, Indonesia, Vietnam, Laos, Cambodia, and Myanmar (Burma) (figure 1)—collectively known as the Association of Southeast Asian Nations (ASEAN). The region contains more than half a billion people spread over highly diverse countries, from economic powerhouses like Singapore to poorer economies such as Laos, Cambodia,

Key messages

- The diversity of geography and history, including social, cultural, and economic differences have contributed to highly divergent health status and health systems across and within countries of southeast Asia.
- Demographic transition is taking place at among the fastest rates compared with other regions of the world, whether in terms of fertility reductions, population ageing, and rural-to-urban migration. Rapid epidemiological transition is also occurring with the disease burden shifting from infectious to chronic diseases.
- Rapid urbanisation, population movement, and high-density living raise concerns about newly emerging infectious diseases, but these outbreaks have stimulated regional cooperation in information exchange and improvement in disease surveillance systems.
- Southeast Asia's peculiar geology contributes to it being the most disaster-prone region in the world, more susceptible to natural and man-made disasters affecting health, including earthquakes, typhoons, floods, and environmental pollution. Climate change along with rapid economic development could exacerbate the spread of emerging infectious diseases.

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- Health systems in the region are a dynamic mix of public and private delivery and financing, with new organisational forms such as corporatised public hospitals, and innovative service delivery responding to competitive private health-care markets and growing medical tourism.
- The health-care systems are highly diverse, ranging from dominant tax-based financing to social insurance and high out-of-pocket payments across the region. There is a greater push for universal coverage of the population, but more needs to be done to ensure access to health services for the poor.
- Private health expenditure is increasing relative to government expenditure, where new forms of financing include user charges, improved targeting of subsidies, and greater cost recovery. Health-care financing could be further restructured in response to future demographic shifts in age-dependency, as in introduction of medical savings and social insurance for long-term care.
- There is potential for greater public-private participation with economic growth through ASEAN integration and further regional health collaboration, despite the current division of the region under two WHO regional offices.

Key Messages – Health in S.E. Asia

- The diversity of geography and history, including social, cultural, and economic differences have contributed to highly divergent health status and health systems across and within countries.
- Demographic transition is taking place at among the fastest rates compared with other regions of the world, whether in terms of fertility reductions, population ageing, and rural to-urban migration. Rapid epidemiological transition is also occurring with the disease burden shifting from infectious to chronic diseases.
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Demography of Asia

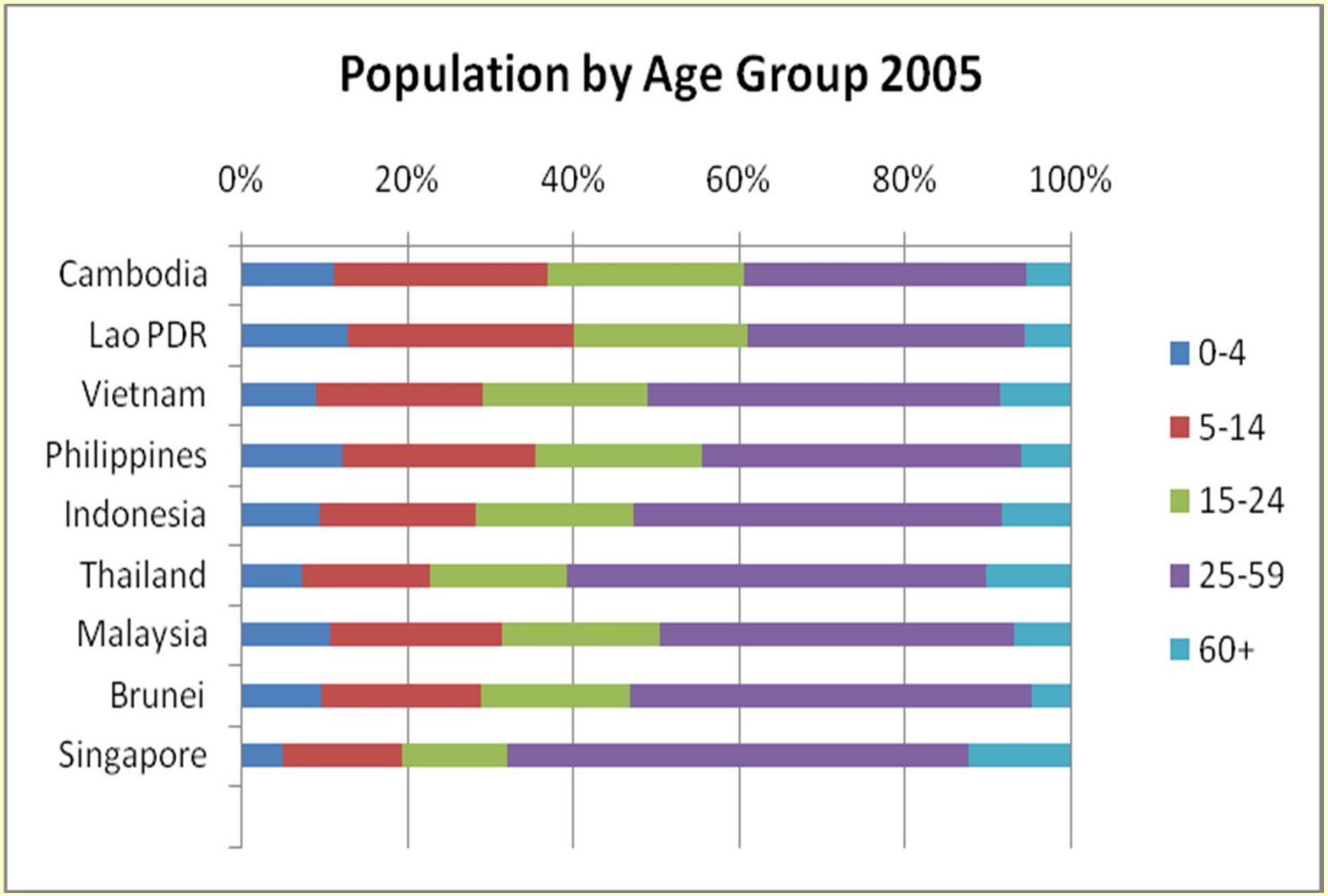
- Inhabited by more than ½ the world's population
- Rapidly growing in primate mega-cities of

  East Asia – Shanghai + Chinese cities, Tokyo, etc

  South Asia - Mumbai, Kolkata + Indian cities

  SE Asia - Jakarta, Manila and Bangkok
- Population growth in rising rural-urban migration rather than birth rates
- Increasing life expectancy at birth (LE_0), ranging from 50's(Timor Leste/Laos) - 80's (S'pore/Japan)
- LE_0 largely affected by socio-economic disparities, past internal conflicts and infections

Demographic Structure of S.E. Asia



Demographic Transition in Asia

- Fertility
  - below replacement level:

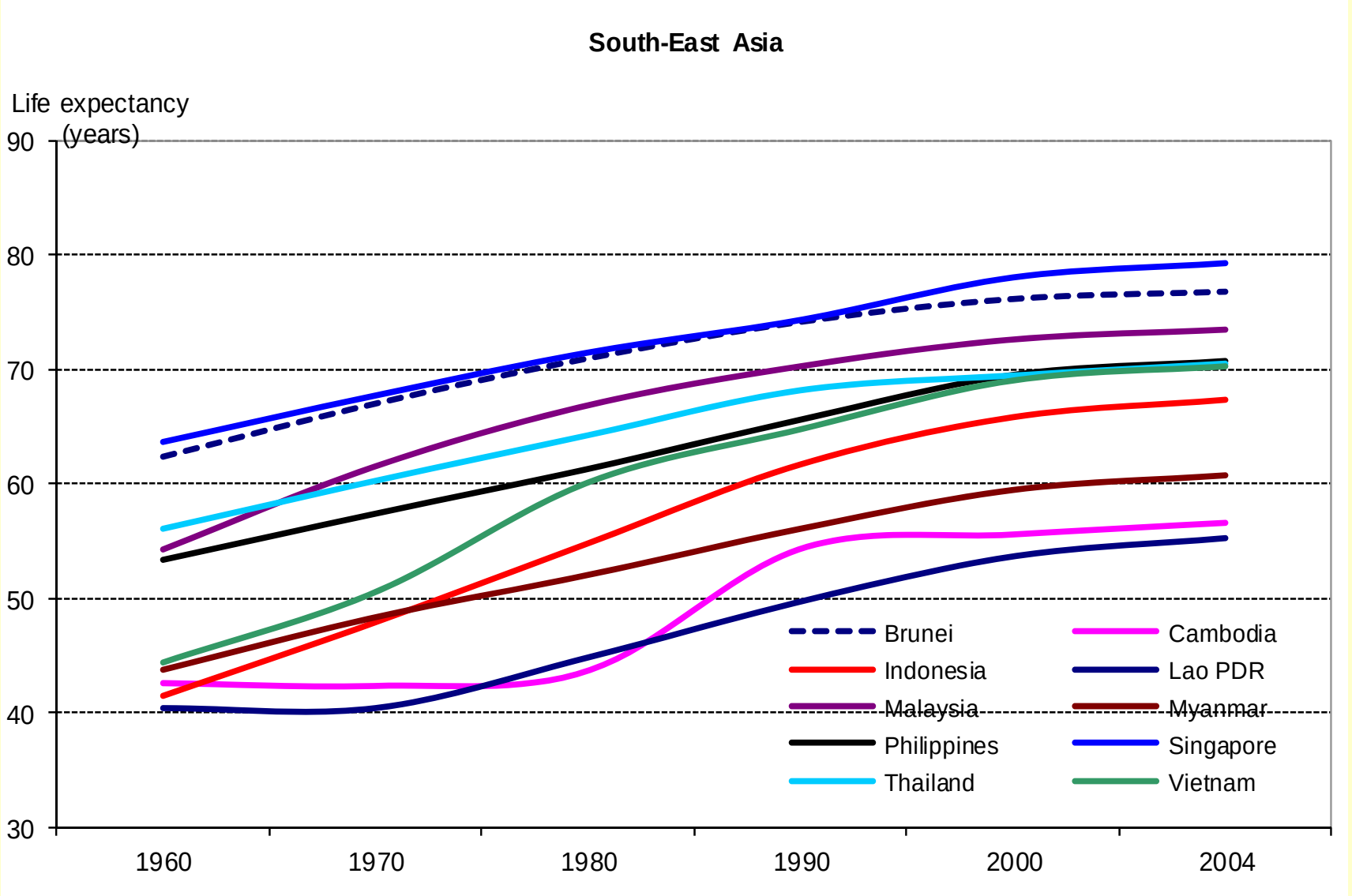
    Japan, China (urban one-child policy), Korea, Taiwan, Singapore and Thailand
  - near replacement level:

    Vietnam, Brunei, Indonesia
  - total fertility rate > 3:

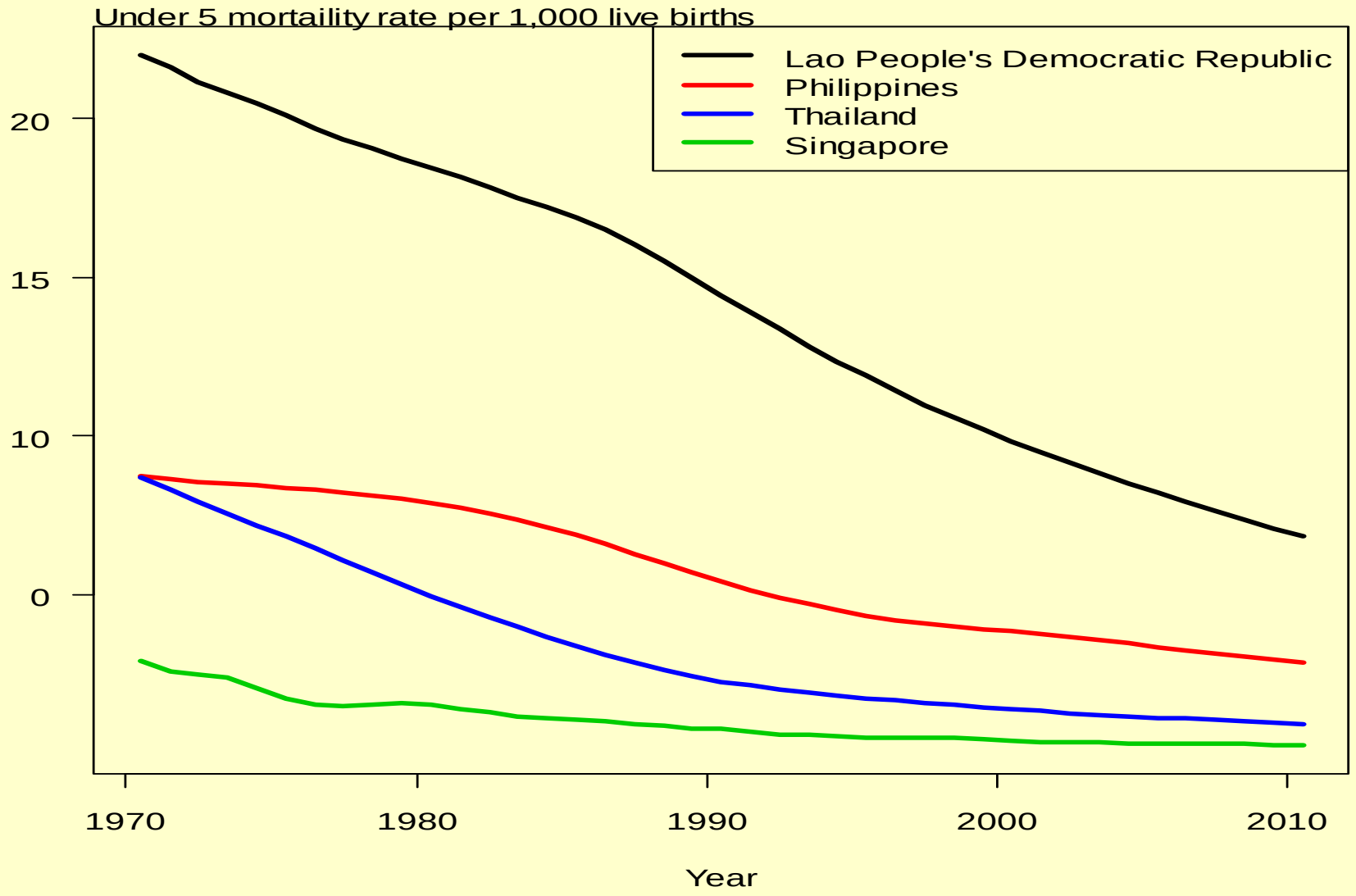
    India, Lao PDR, Cambodia, Philippines
- Ageing

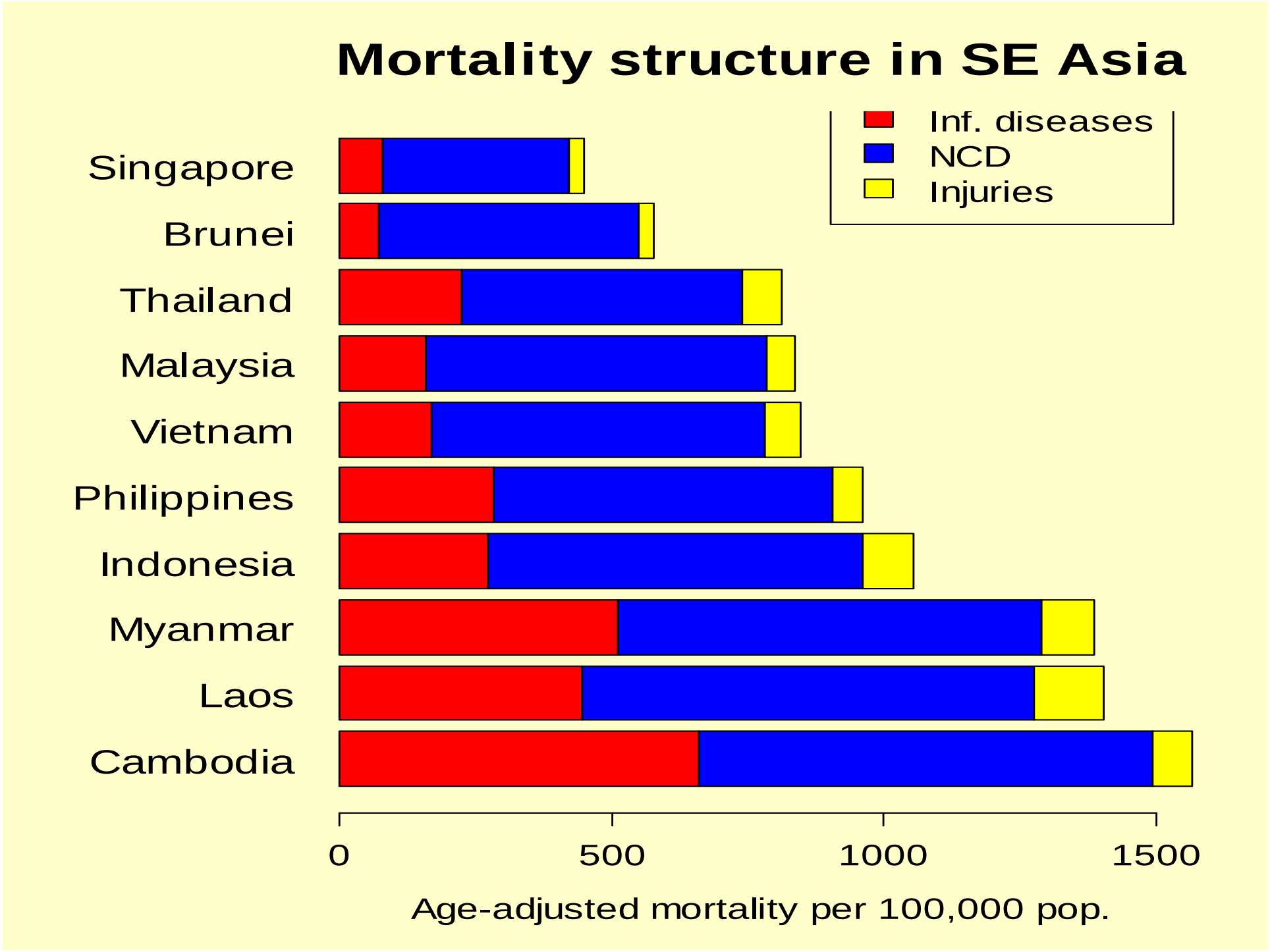
  Doubling of elderly in ~ 20 years

Improving Life Expectancies in South East Asia

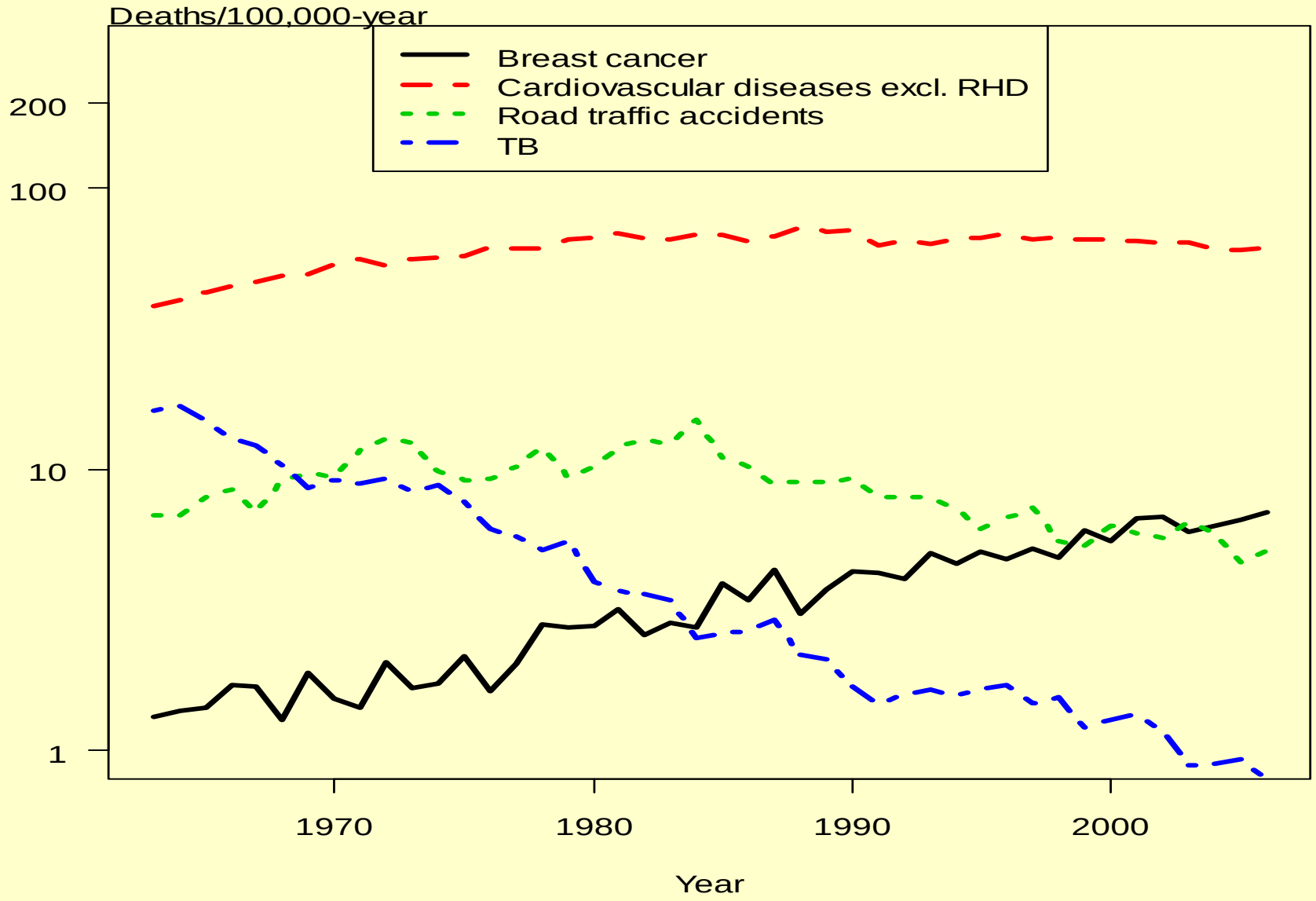


Selected Health Indicators in Asia

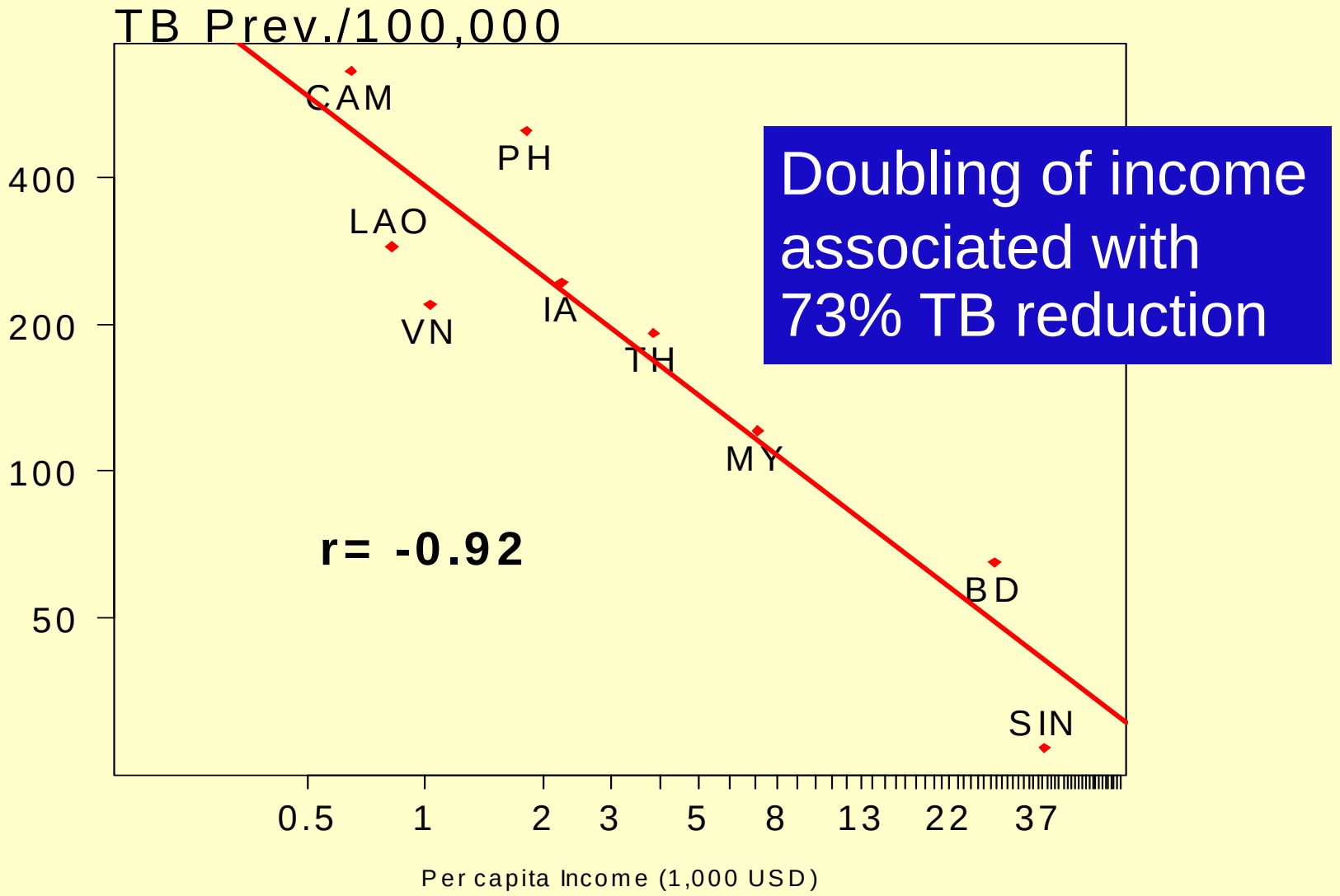



Mortality structure in SE Asia
Inf. diseases
NCD
Injuries
Singapore
Brunei
Thailand
Malaysia
Vietnam
Philippines
Indonesia
Myanmar
Laos
Cambodia
0
500
1000
1500
Age-adjusted mortality per 100,000 pop.

Epidemiological Transition in Singapore

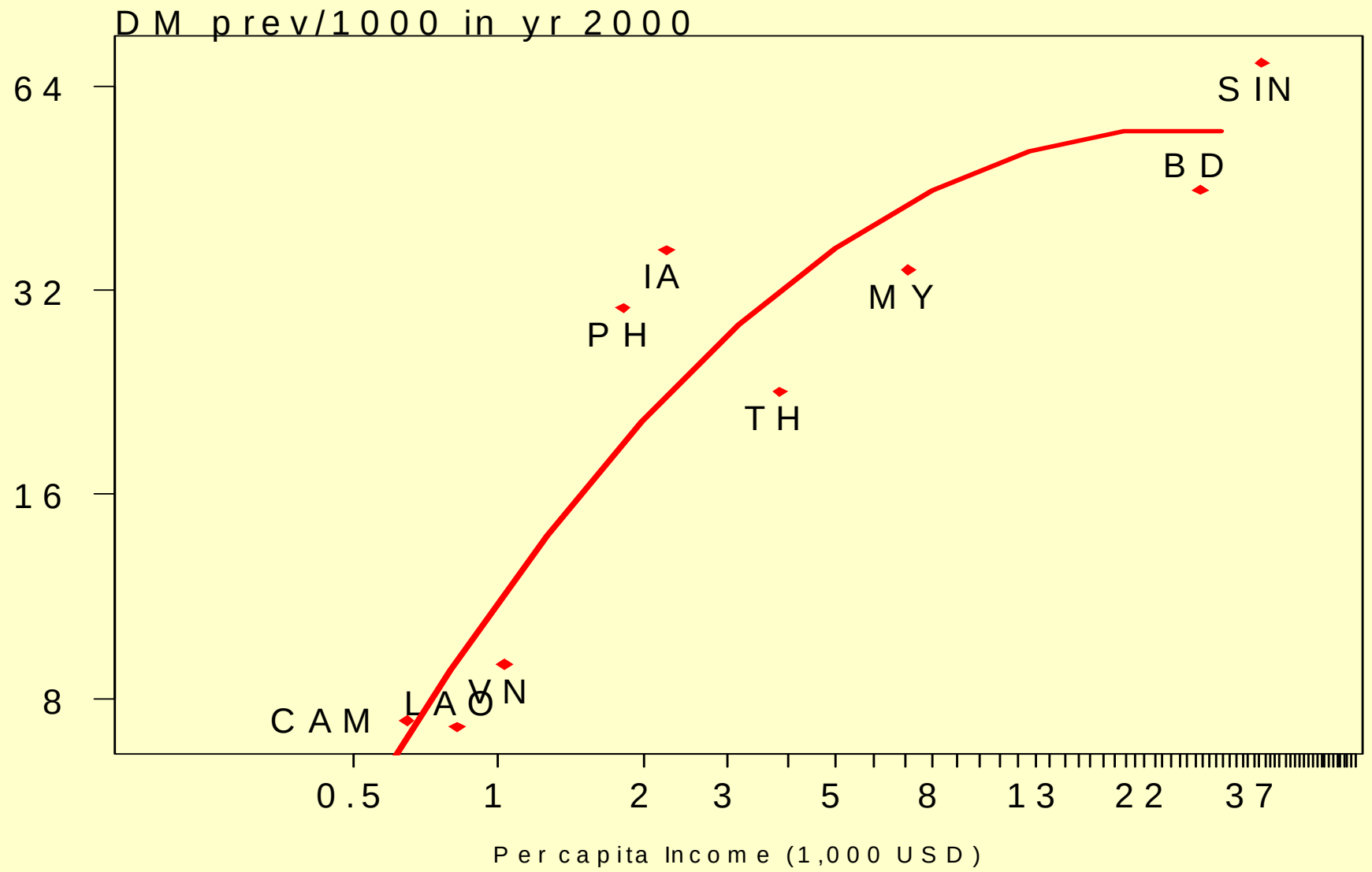


Health and Wealth in Southeast Asia



Doubling of income associated with 73% TB reduction

Health and Wealth in Southeast Asia

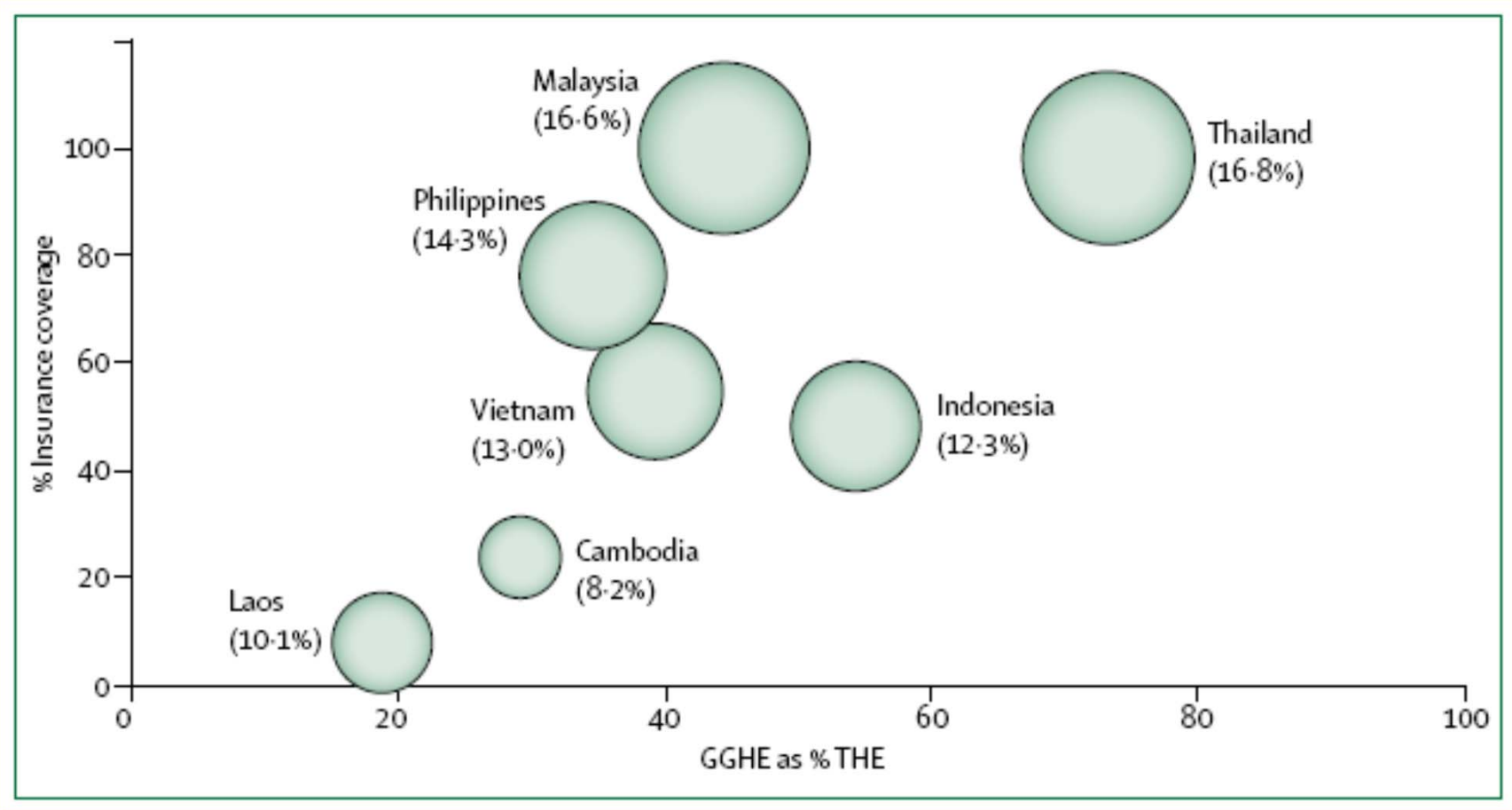


Healthcare Financing in Southeast Asia

Country	Population coverage	Health service coverage	Financial protection*
Malaysia	100%	PHC services focus on MNCH. But long waiting time, and limited number of family physicians; Survey reports 62% of ambulatory care provided by private clinics	40.7%
Thailand	98%	Comprehensive benefit package, free at point of service for all three public insurance schemes	19.2%
Indonesia	48%	Good policy intention but low per capita government subsidy for the poor of US$ 6 per year	30.1%
Philippines	76%	High level of co-payment, 54% of the bills reimbursed	54.7%
Vietnam	54.8%	Benefit package comprehensive but substantial level of co-payment, 5-20% of medical bills	54.8%
Lao PDR	7.7%	Low level of government funding support to the poor results in a small service package	61.7%
Cambodia	24%	The poor covered by the health equity fund but scope and quality of care provided at government health facilities are limited	60.1%

Financial protection * measured by OOP as % of THE, 2007

Healthcare Financing in Southeast Asia



Fiscal space in the context of insurance coverage and government expenditure

Note: The size of the spheres indicate the size of the fiscal space as measured by tax revenues as percentage of gross domestic product.

GGHE=general government health expenditure. THE=total health expenditure.

Key Messages - Health Systems in SE Asia

- Regional health systems are a dynamic mix of public and private delivery and financing, with new organisational forms such as corporatised public hospitals, and innovative service delivery responding to competitive private health-care markets and growing medical tourism.
- The health-care systems are highly diverse, ranging from dominant tax-based financing to social insurance and high out-of-pocket payments. There is a greater push for universal coverage of the population, but more needs to be done to ensure access to health services for the poor.
- Private expenditure is increasing relative to government expenditure, where new forms of financing include user charges, improved targeting of subsidies and greater cost recovery. Health financing could be further restructured in response to future demographic shifts in age-dependency, as in medical savings and social insurance for long-term care.
- There is potential for greater public-private participation with economic growth through regional integration and international health collaboration, despite the current division of the region under two WHO regional offices.

Driving Forces of Healthcare in the Asia-Pacific

Developed Economies (Japan, Aust, NZ, Spore, HK, Korea, Taiwan)

- Rapidly ageing population
- High quality consumption
- High technology development

Newly Industrializing Economies (Mostly ASEAN)

- Developmental take-off
- Growing service industries
- Rapid urbanization/industrialization
- Expanding middle class/consumer power

Driving Forces of Healthcare in the Asia-Pacific

Emerging/Transitional Economies
(China, India, Vietnam, Mongolia, etc)

- Vast populations and/or geographical areas
- Disparities and uneven development
- Opening up to free markets
- Rapid decentralization/privatization
- Low base – urgency to “catch up”

Island Economies

- Remote insular and coastal populations
- Vulnerabilities to global warming, climate change, seismic activities, sea-level rise, etc

Health Care Trends in the Asia-Pacific

- High level of private provision and financing of health services in the Asia-Pacific region
- Growing private and informal sectors
- Increasing privatization and liberalization
- Lack of legal and regulatory framework
- Weak enforcement of laws and regulations
- Infringement of copyrights and intellectual property rights
- Poor quality and potential safety risks
- ? Impact of globalization and population changes

Classification of Health Systems

By organizational structure, functions, history, geography or level of economic development

- Developed economies - High-income
- Newly industrializing economies (NIEs)
  - Upper middle-income
- Transitional economies - Lower middle-income
- Developing economies - Low-income

Typology of Health Systems Challenges

Developed/Industrialized Economies

(eg Japan, Australia, New Zealand, Singapore, Hong Kong, Korea, Taiwan)

- Rapid ageing and chronic diseases
- Rising costs and excessive consumption
- High-technology medical industry
- Health care financing, insurance and provider payment methods (case-mix/DRG)
- Long-term care for ageing population

Typology of Health Systems Challenges

Newly Industrializing Economies

(eg Malaysia, Thailand, Philippines, Indonesia)

- Rapid private growth with negative effects on government health services
- Problems of differential access and quality
- Restructuring of centralized hospital systems
- Health care financing and insurance coverage

Typology of Health Systems Challenges

Transitional Economies

(eg China, Vietnam, Mongolia, CAREC countries)

- Shift from socialist to free market principles
- Uneven development and disparities arising from lack of new distributive mechanisms
- Problems of inefficiencies and inappropriate use of technologies, drugs and equipment
- Problems of regulating quality and standards

Health Care Financing Systems – National Health Insurance Models

JAPAN

- Universal health insurance (1922/1939)
- “Point” fee-for-service with global budget

KOREA

- Universal health insurance (1976/1989)
- Fee-for-service with high co-payment

TAIWAN

- Universal health insurance (1995)
- Fee-for-service with low co-payment

Health Care Financing Systems – National Health Service Models

SINGAPORE

- Mixed public/private system
- Tax-based government health service with targeted subsidies
- Mandatory medical savings with insurance

HONG KONG

- Dominant public system
- Tax-based government health service

MALAYSIA

- Mixed public/private system (rural-urban)
- Tax-based government health services

Health Care Financing Reforms in East Asia

- JAPAN
  Universal health insurance (1922/1939)
  National Health Insurance amended (1984/1990)
  Public long term care insurance (2000)
- KOREA
  Universal health insurance (1976/1989)
- TAIWAN
  Universal health insurance (1995)
- CHINA
  New Rural Cooperative Medical Scheme (2003)
  with Medical Assistance (safety net program)
  Urban social health insurance program (2000s)

Health Care Financing Reforms in South East Asia

- SINGAPORE

  National Health Plan (1983)

  Medisave/Medishield/Medifund (1984/1990/1993)

  Review Committee on National Health Policies (1992)

  White Paper "Affordable Health Care" (1993)

  Casemix Funding introduced (1999)

  Eldershield – Severe Disability Insurance (2002)

- HONG KONG

  Consultation Paper "Towards Better Health" (1993)

  Harvard Health Care Financing Study (1999)

  Consultation Paper "Lifelong Investment in Health" (2000)

  Healthcare Reform Consultation "My Health My Choice" (2010)

Health Reform Policy Options

- **Resource Mobilization**

  - diversify financing from pay-as-you-go (PAYGO) to pre-funded, social insurance or savings schemes

- **Efficiency**

  - optimize resource allocation, cost-effective supply and demand utilization (pricing/subsidy, etc)

- **Equity**

  - better targeting of public subsidies, shift well-off from public to private sector (means testing, etc), public-private-people balance

Observations on Health Reform Policies

- Health sector reforms in response to demographic, epidemiological and socio-economic transitions
- Typology of common challenges and responses of health systems at different stages of development
- Evaluative criteria proposed to measure reforms – efficiency, equity, quality and sustainability
- More detailed data and comprehensive analysis of reforms required to assess impact in the long term
- ? Effects of globalization, democratization and future social, economic and political developments

Future Directions of Health Systems Development in Asia

- Strong fundamentals and driving forces for continued health care demand
- Greater liberalization, privatization and foreign participation with globalization
- Growing trade in health services/medical tourism
- Balance cost-containment versus higher quality
- ? Towards more sustainable and affordable health care systems

Special Conditions in Asia

- Highest rates of population ageing
- Fastest pace of economic transition
- Significant role of private markets
- Great propensity for savings and investments
- Strong family and informal support systems (social capital)
- Cultural traditions, values and social norms

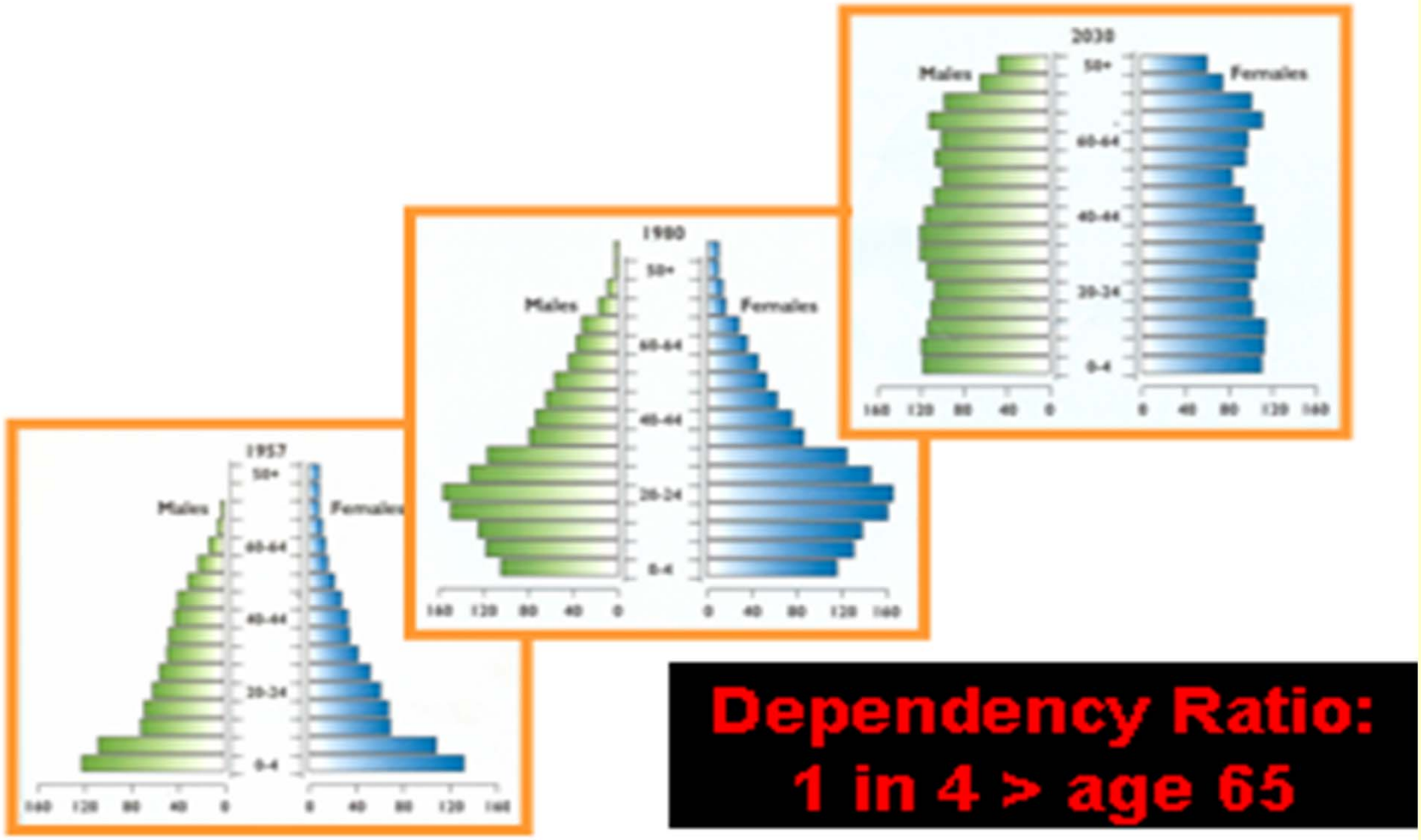
Health reforms must contend with such special contexts

Demographics and Economics of Population Ageing in Asia

- Asia's population becoming older
- Rising life expectancy throughout the region
- Regional variations in ageing rates
- Rural ageing due to population migration
- Increase in old age dependency ratios
- Feminization of ageing with poverty
- Higher education levels of older population
- Fastest rates of ageing with rapid development

"But Asia is becoming old before getting rich!"

Demographic Transition:
Population Age Structure Changes

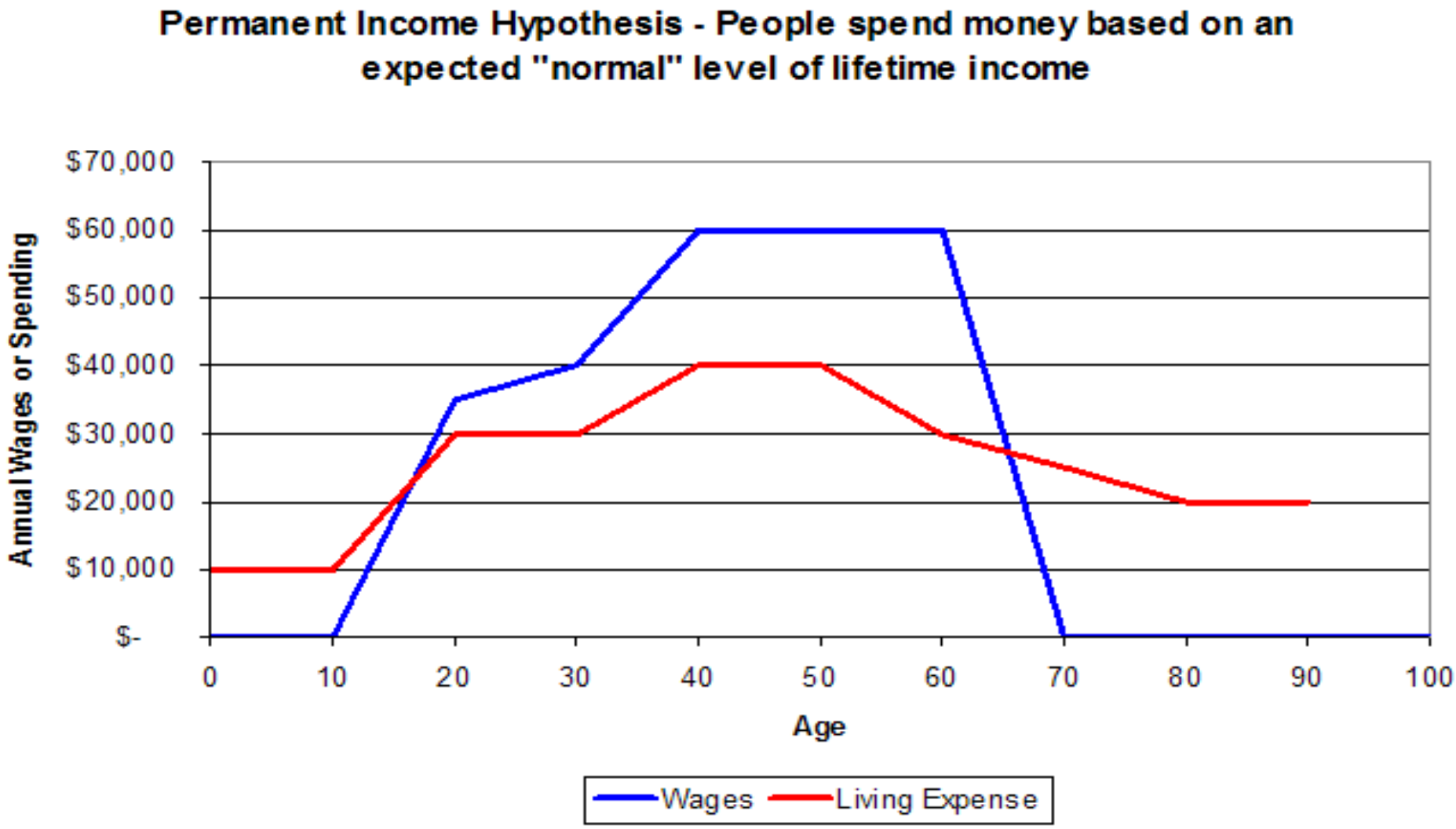


Dependency Ratio:
1 in 4 > age 65

Population Ageing: Impact on Health Expenditure

- Health expenditure will increase with growing proportion of the aged
- Health expenditure will increase with longer survival of the aged population
- Health expenditure will increase with widening periods of morbidity and disability before death

Modigliani's Life Cycle Theory



Personal and Policy Options in Response to Ageing

- Reduce consumption while young and build up savings early
- Lengthen working and productive life as long as possible
- Balance consumption with dissavings during retirement

What about healthcare expenditure?

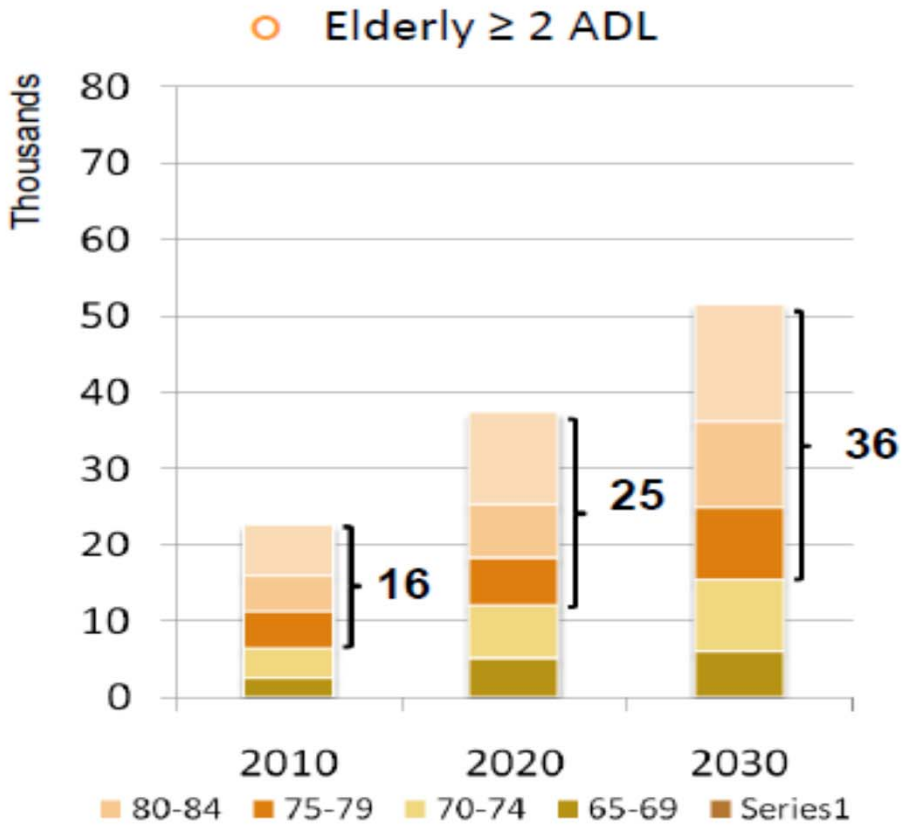
Health Statistics, Singapore - Past and Present

	1980	2010
• Life expectancy	70 years	81 years
• Infant mortality	12/`000	2/`000
• Aged/total population	5 %	10 %
• Public hospital mix	85 %	80 %
• Health expenditure/GDP	3 %	4 %
• Health expenditure/ government budget	6 %	7 %
• User fees recovered / public expenditure	3 %	60%

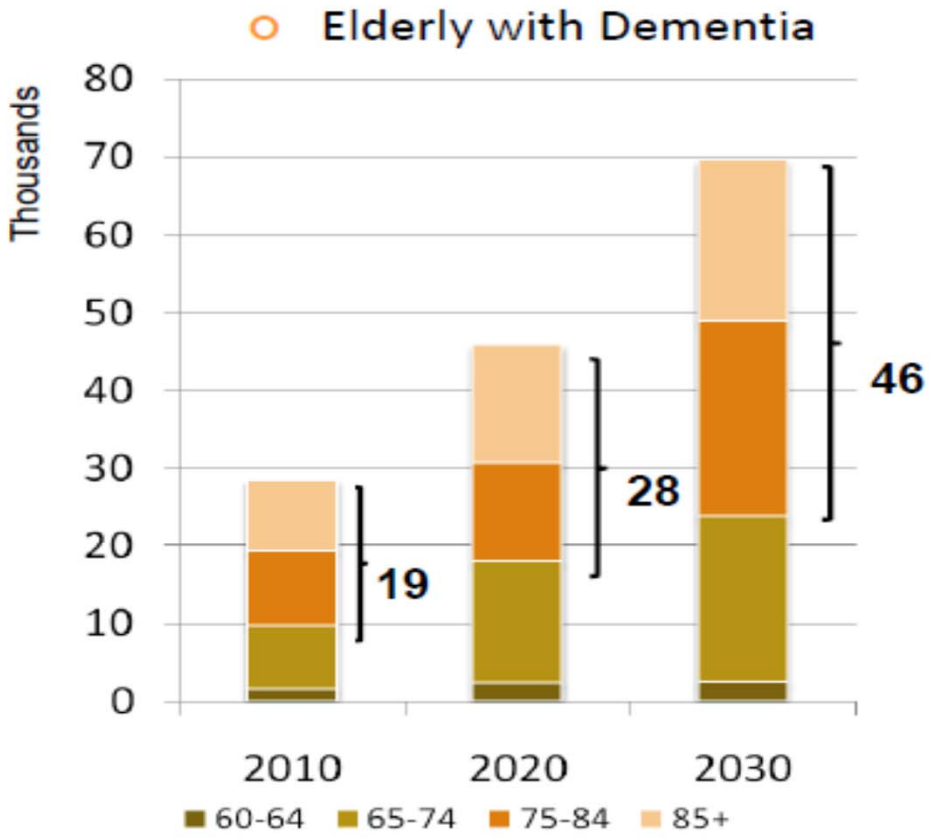
Future Health Statistics, Singapore

Local Elderly Population Trends

Older-old will require more care...



Source: Projected using NSSC 2005 data



Source: Projected using 2004 National Mental Health Survey, MOH

Current Acute Care-Centric Model

HOME

HOSPITAL

1. Long length of stay for elderly patients in expensive acute care

2. Intermittent access to community healthcare services contributes to worsening health

4. Frequent readmissions to hospitals

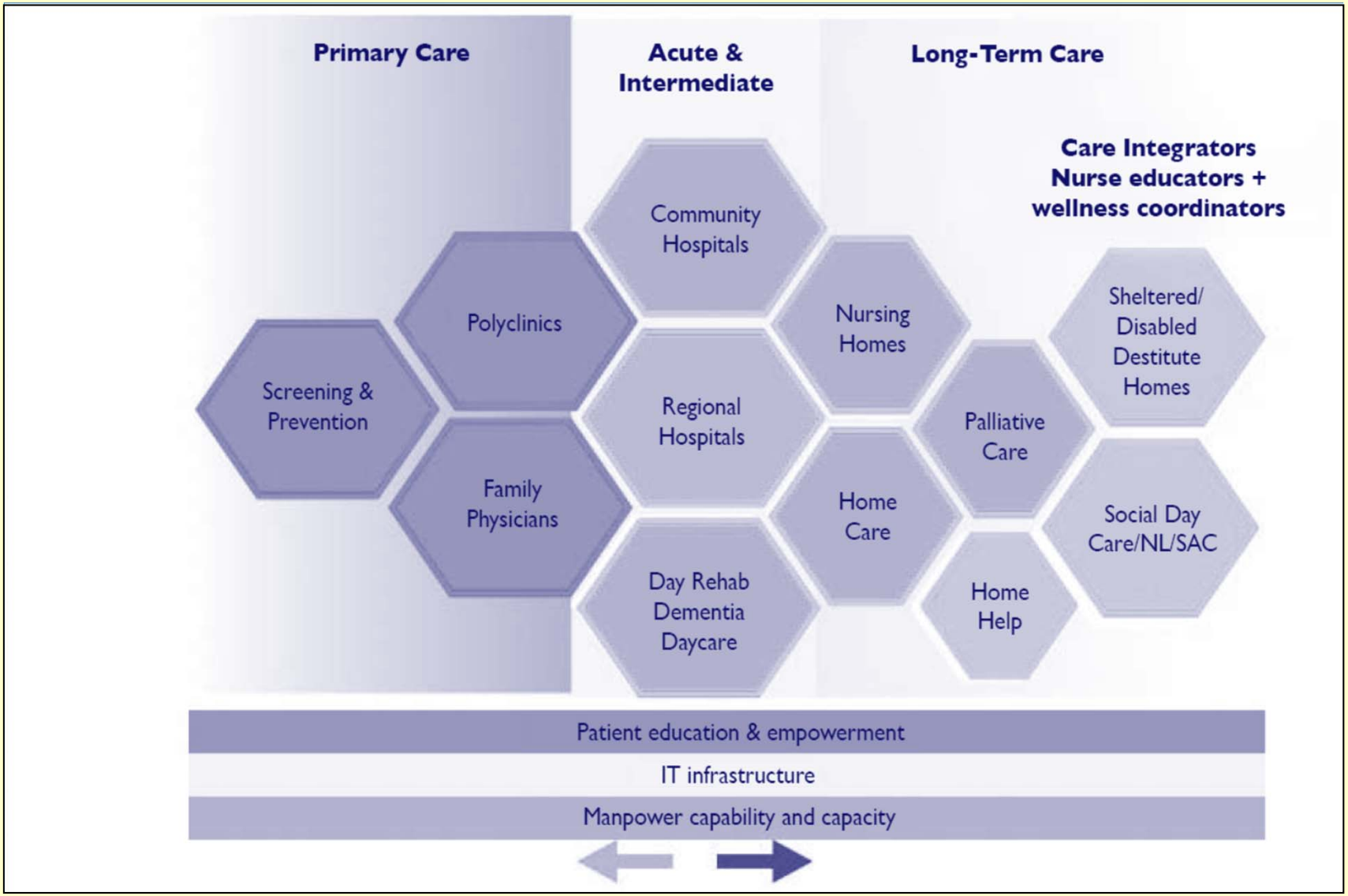
3. Primary, intermediate and long-term services are not well-integrated; some services do not exist

Continuum of Intermediate and Long Term Care Services

- Community hospital
- Day rehabilitation centres
- Social day care centres with rehabilitation services
- Home care providers
- Private nursing home
- VWO-run nursing home
- Dementia day care centres
- Psychiatric nursing homes
- Hospice care providers

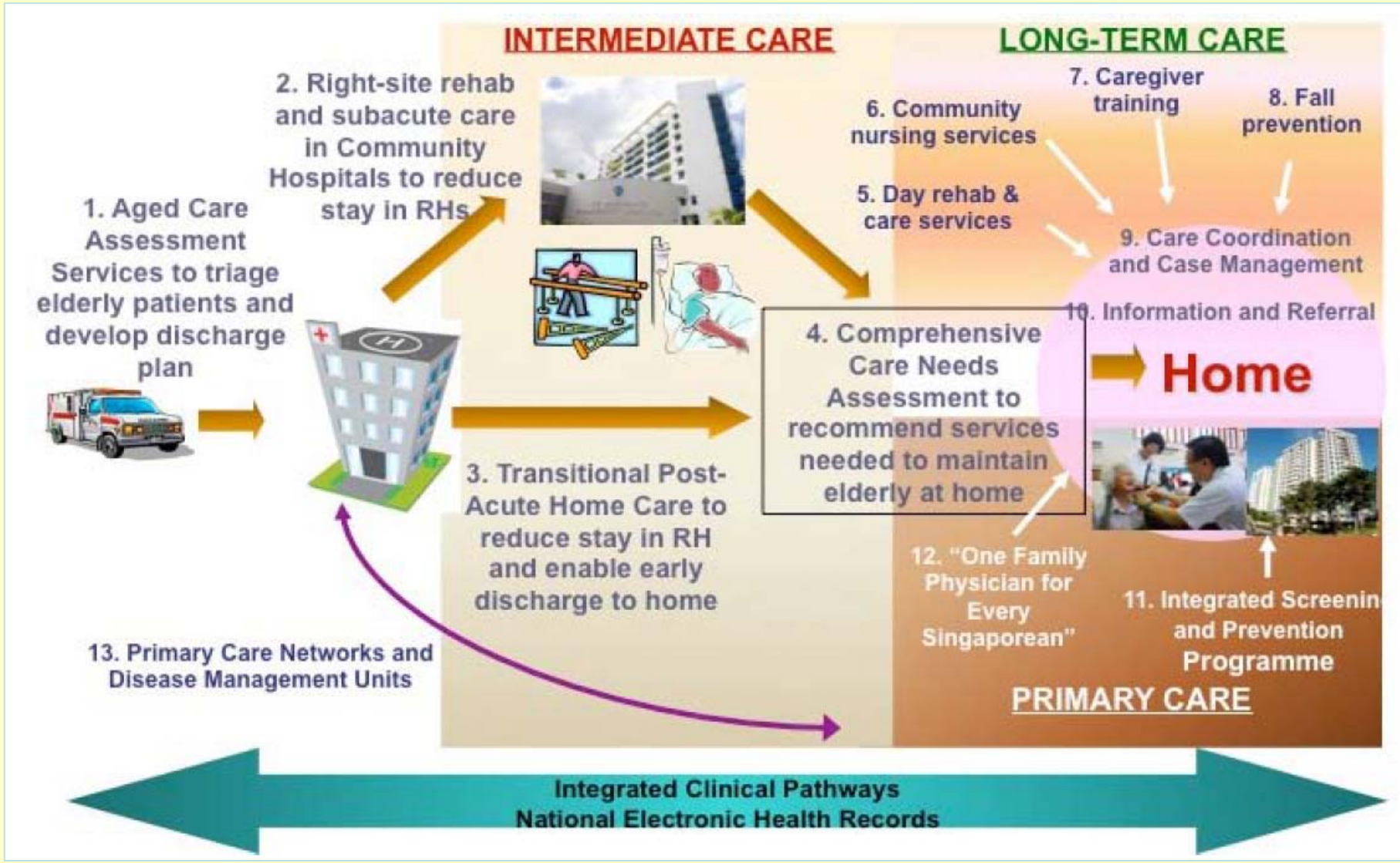
Source: http://www.aic.sg/silverpages/default.aspx

Integrating Health Care by Levels of Care



Faezah Shaikh Kadir. Singapore Family Physician 2011; 37(3):15

Future Integrated Care in Action



Faezah Shaikh Kadir. Singapore Family Physician 2011; 37(3):15

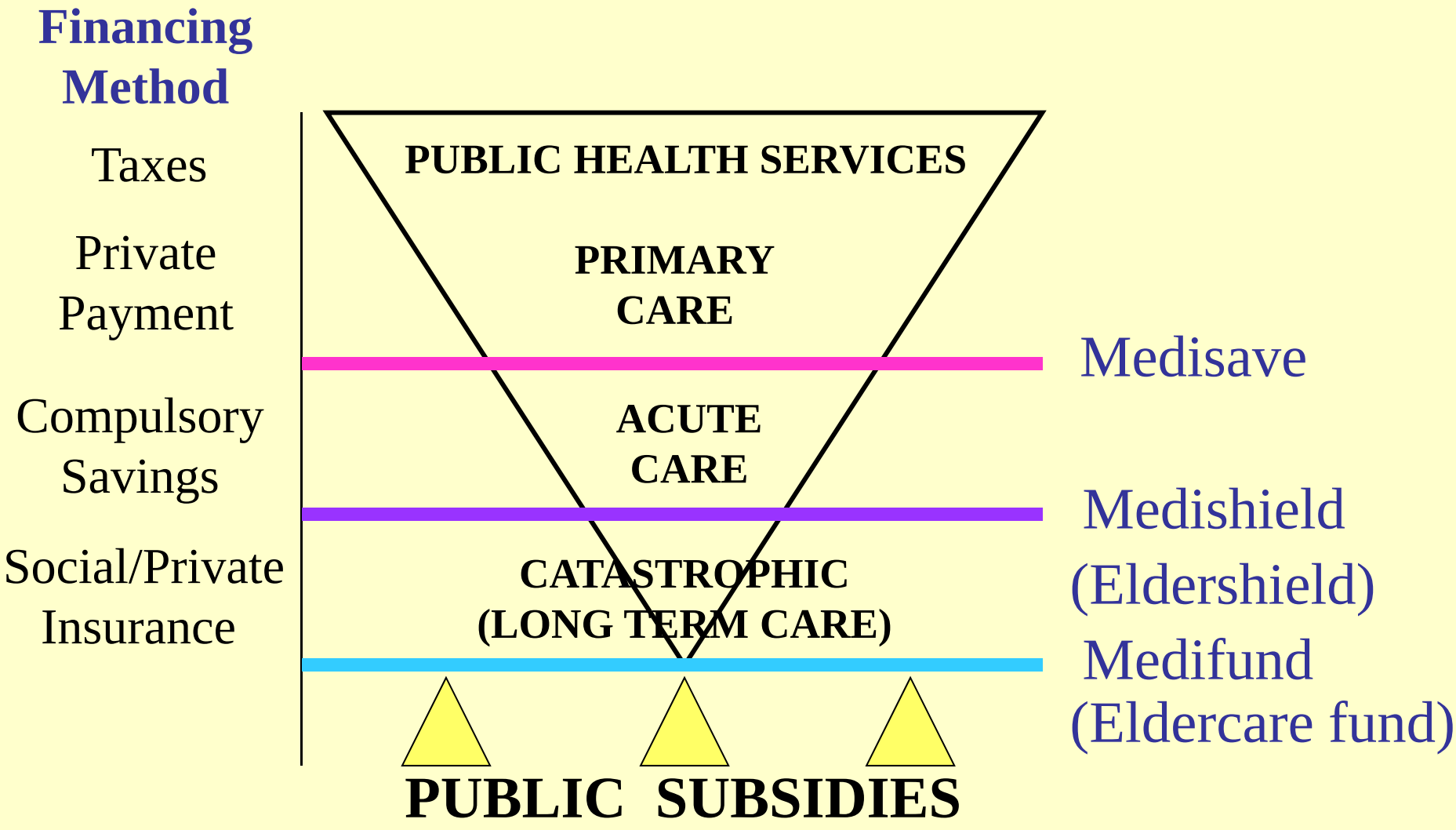
The Public-Private Mix in Health and Long Term Care Facilities

	Private	Public	Voluntary
Specialist Care	Private Hospitals Specialist Centres	Public Hospitals National Specialist Centres	
Primary Care	GP Clinics	Polyclinics	
Intermediate and Long Term Care	Nursing Homes Home Care	Transitional Care	Community Hospitals Nursing Homes Hospice Care Day Rehab Centres Home Care

Health Care Financing Strategies

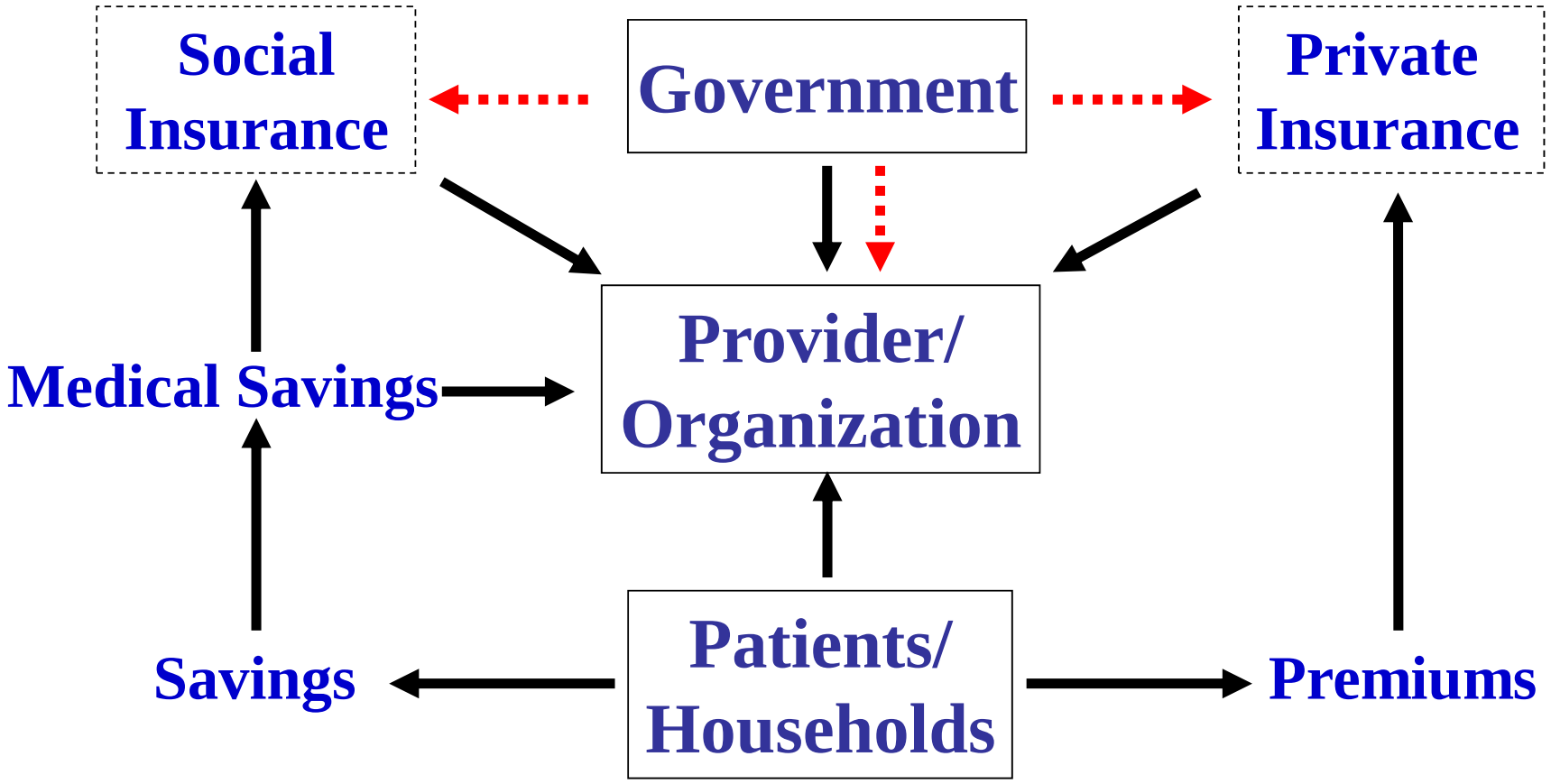
Instill personal and family responsibility
(Cost-sharing)
+
Ensure future sustainability with ageing
avoid inter-generational problems
(Savings)
+
Enhance risk-pooling and social protection
(Insurance)
+
Target subsidy and equitable distribution
(Taxation)

Health Care Financing in Singapore



Source: Dr. Phua Kai Hong

Future Policies to Enhance Financing with Savings and Insurance?



Fine-tuning the Healthcare Balance?

Equity versus Efficiency

Demand-side (Patient)	Supply-side (Provider)
Cost-sharing Savings Insurance Subsidy Means-testing	Case-mix funding Price Quality Outcomes Provider payments?

Domestic versus External Needs?

Health Policy Challenges in Asia – Facing Diversity and Disparities!

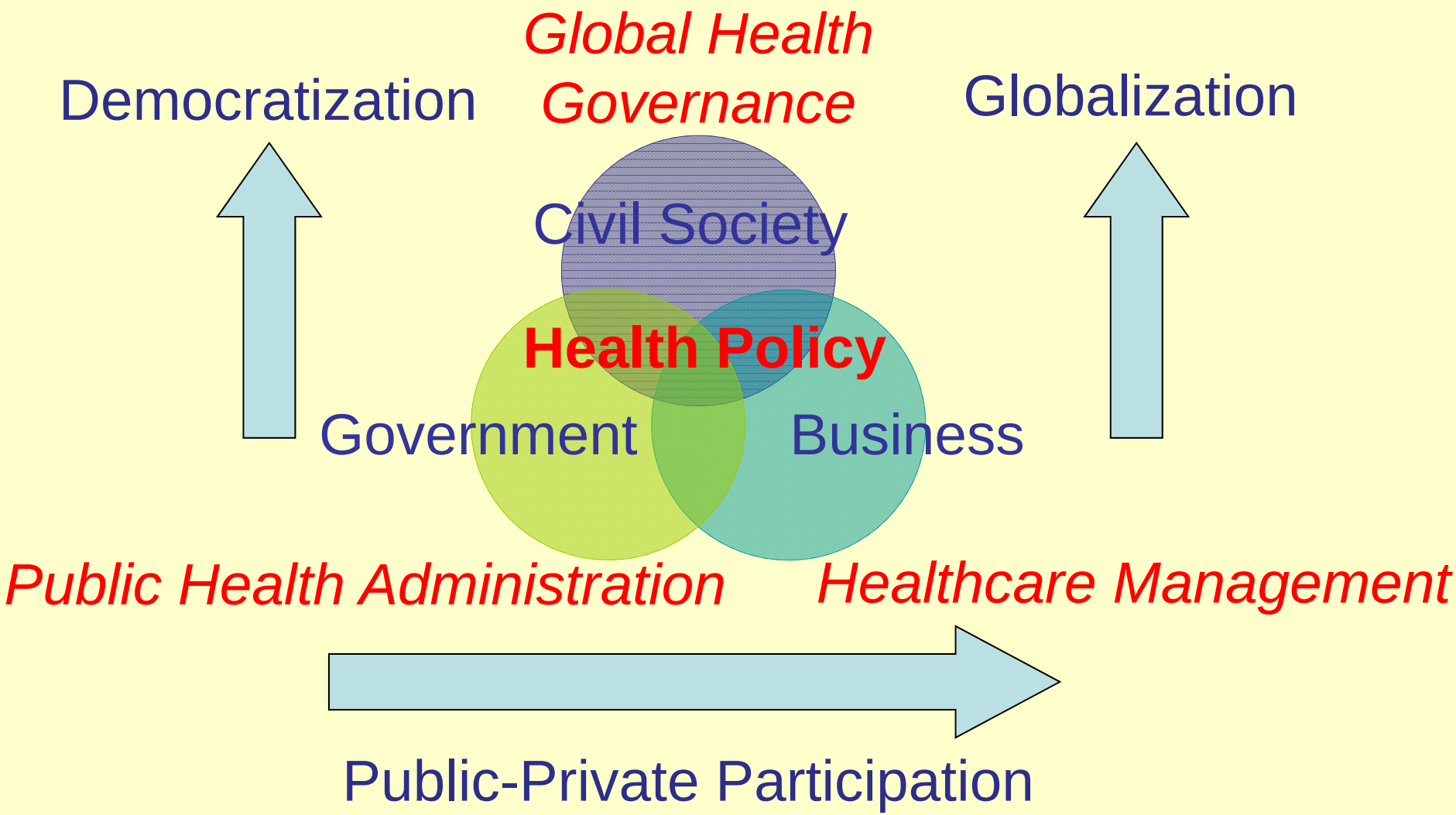
Future Health Policy Challenges – Roles of Research and Training

- Produce information – conduct research, collect, analyze and synthesize evidence
- Communicate evidence – dissemination or publication, media/PR, social marketing
- Build capacity – train policy researchers, broker knowledge transfer and partnerships
- Promote/advocate policy and action
  - engage with stakeholders/policy-makers
  - monitor take-up by policy-makers
  - evaluate policy implementation

Future Health Policy Challenges in the Asia-Pacific Region - What Roles for Research and Training?

- Towards regional centres of excellence
- New innovative models of cooperation
- Collaborative research networks
- Practical training/exchange programs
- Comparative health policy analysis
- Best practices in health governance

Paradigm Shifts in Public Health and Public Policy Education



To our future – the health of our children and our elders …

“The day will come when the progress of nations will be judged not by their military or economic strength, nor by the splendour of their capital cities and public buildings, but by the well-being of their peoples: by their levels of health, nutrition and education;

….. by the provision that is made for those who are vulnerable and disadvantaged; and by the protection that is afforded to the growing minds and bodies of their children….."

(who will become the elders of the future)

The Progress of Nations, UNICEF

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