

HEALTH SYSTEM TRANSFORMATION IN MYANMAR: ARE THE CURRENT CHANGES PROMISING?

Phyu Phyu Thin Zaw, MBBS, PhD
Visiting Scholar/WHO-HRP Career Development Fellow
Asia Health Policy Program
Shorenstein-APARC



1



STANFORD
UNIVERSITY

5/26/2015

Outline

- Myanmar profile
- Myanmar's current health status
- Myanmar Health System
 - Overview
 - Comparison with South East Asian countries
- Equity of access to Reproductive Health services
- Current Changes in Myanmar Health System
- Conclusions and Recommendations



MYANMAR/BURMA

COUNTRY PROFILE

OFFICIAL NAME : REPUBLIC OF THE UNION OF MYANMAR

POPULATION : **51.9** MILLION

RURAL POPULATION : **70%**



Administrative Division

- 7 Regions
- 7 States

Area :Slightly smaller than the U.S. state of *Texas*.

Neighbors : China, India, Thailand, Bangladesh and Laos

- ❖Once South East Asia's wealthiest nation

Politics

- ❖ Was the second most isolated country next to North Korea from 1962 to 2012
- ❖In a transitional period after 63 years of military regime
- ❖Increased transparency
- ❖ More freedom of speech, moderate media freedom
- ❖Some positive approaches

(Ref: 2014 census, WHO 2011)



Beautiful Myanmar



Ethnicity

- **Over 130 ethnic groups** with 8 major groups
- **Internal Conflicts:** One of the longest civil wars
- **Abundant natural resources:** 2nd lowest Human Development Index in Asia Pacific Region

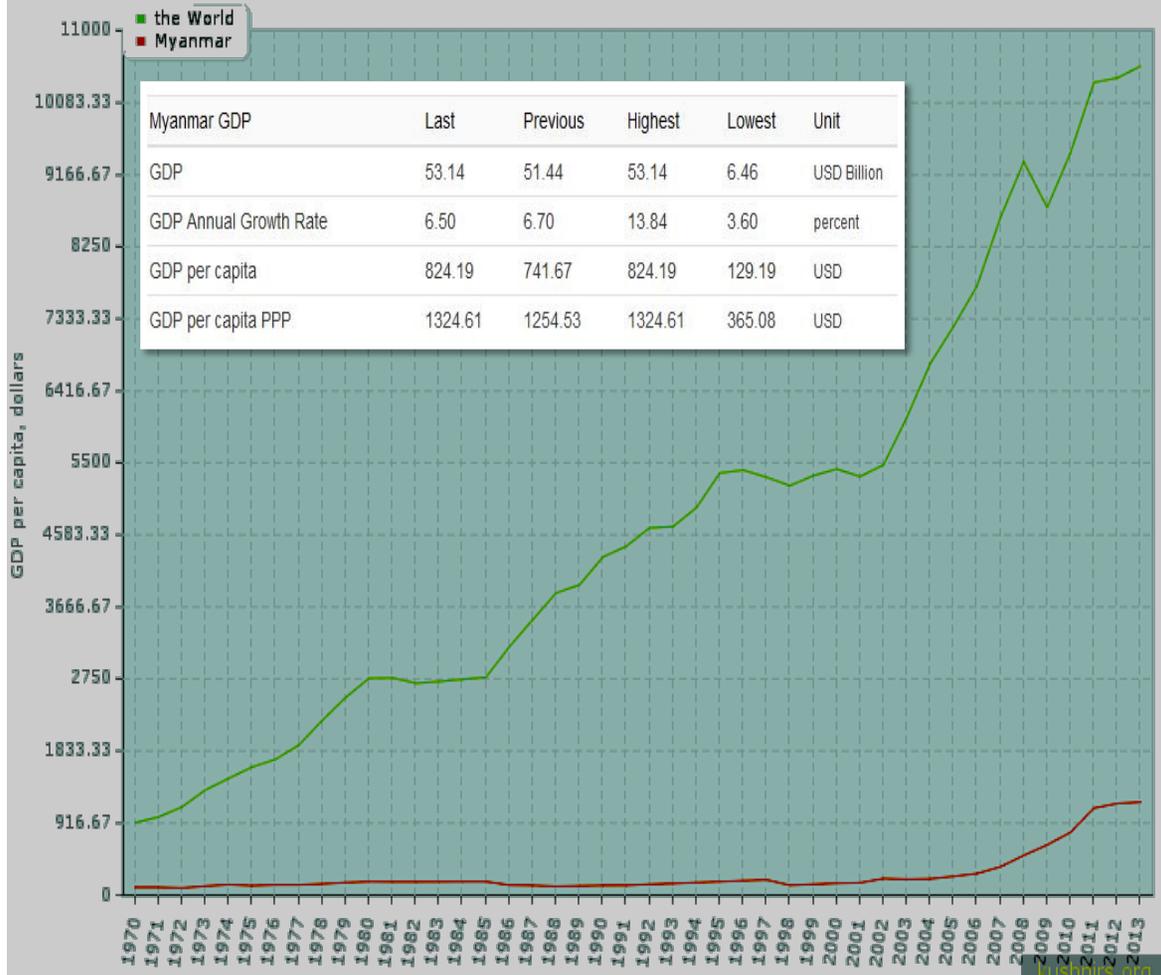


Beautiful Myanmar

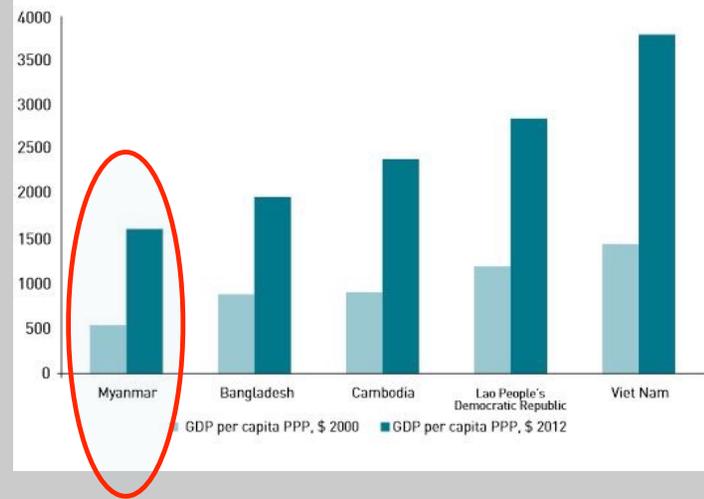


<http://www.placestoseeinyourlifetime.com/bagan-a-strikingly-beautiful-ancient-city-in-myanmar-8843/> PHOTO CREDIT

GDP per capita in Myanmar, dollars, 1970-2013, current prices



GDP per capita PPP of Myanmar compared with Bangladesh, Cambodia, Lao People's Democratic Republic and Viet Nam, 2000 and 2012



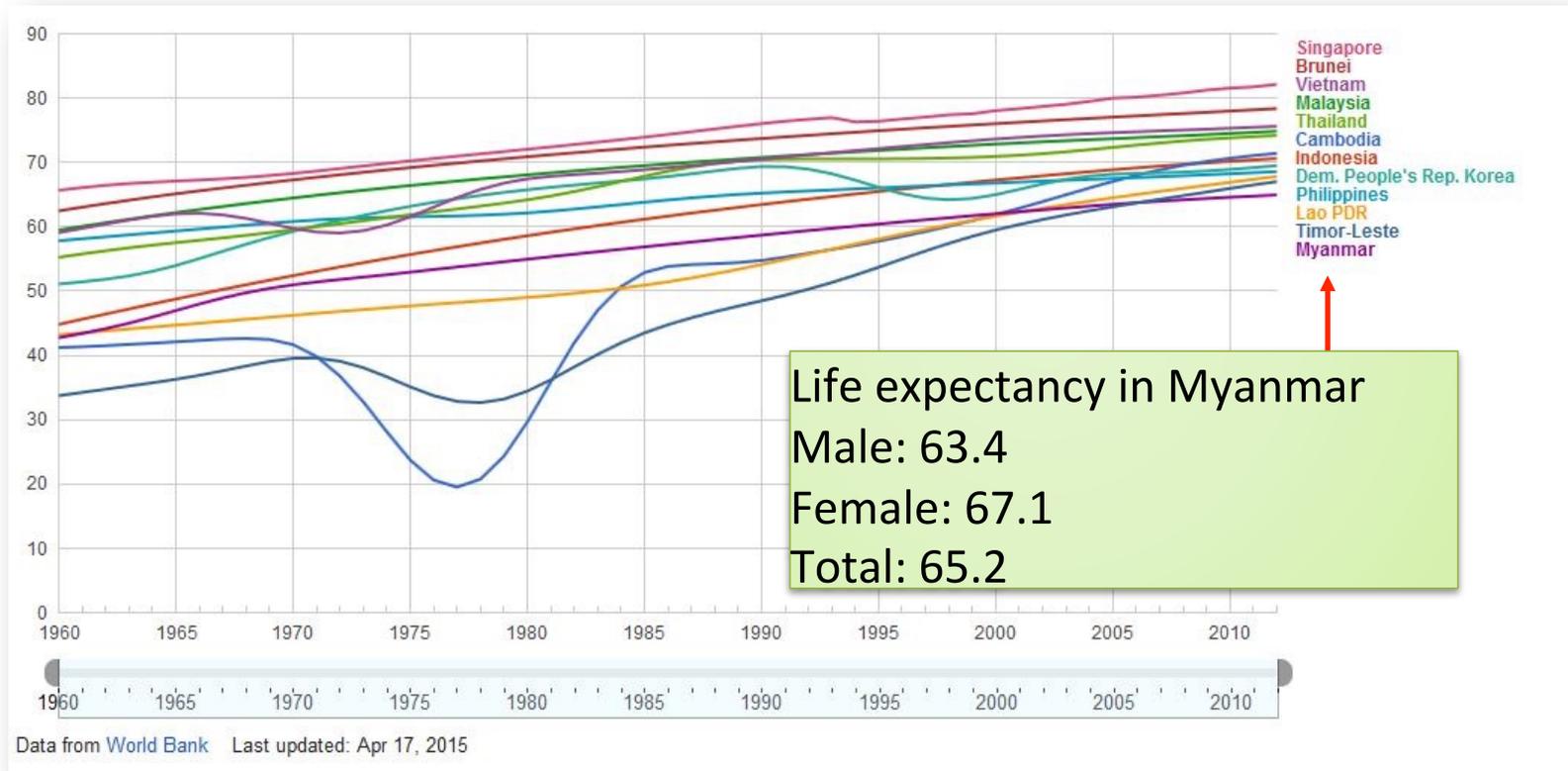
World Bank, 2013
Wikipedia contributor 2013

Overall Health Status

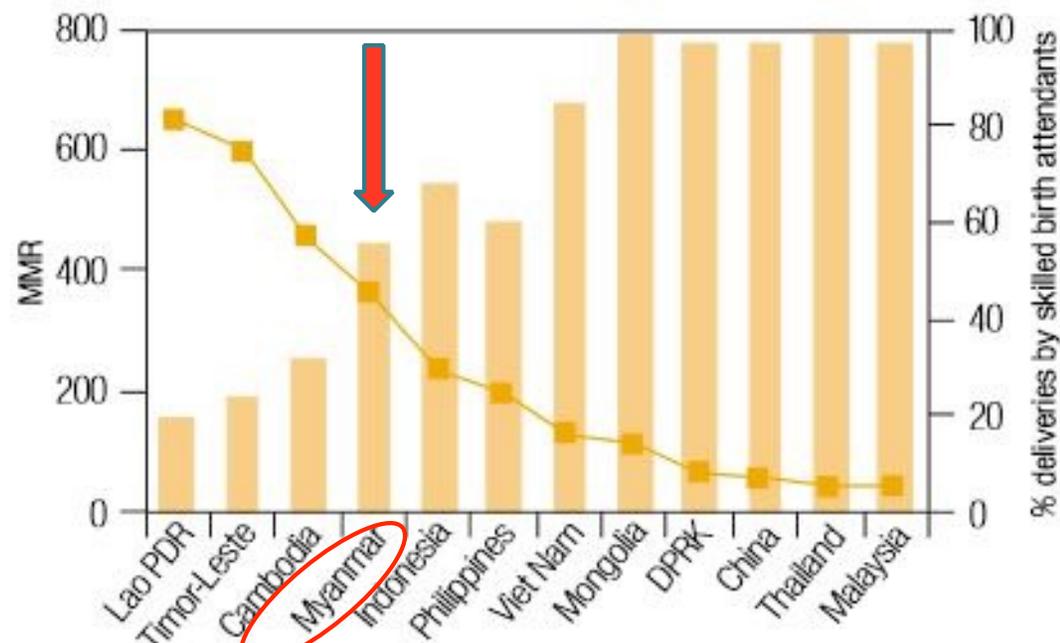
1. Life Expectancy
2. Maternal Mortality
3. Infant Mortality
4. Prevalence of Communicable Diseases (HIV/
TB/Malaria)
5. Prevalence of Non-communicable diseases



1. Life Expectancy at Birth in SEAR



2. Maternal Mortality



Sources: WHO 2004a and UNFPA 2005.

9

Maternal Mortality Ratios and Percentage of Skilled Birth Attendant in SEAR

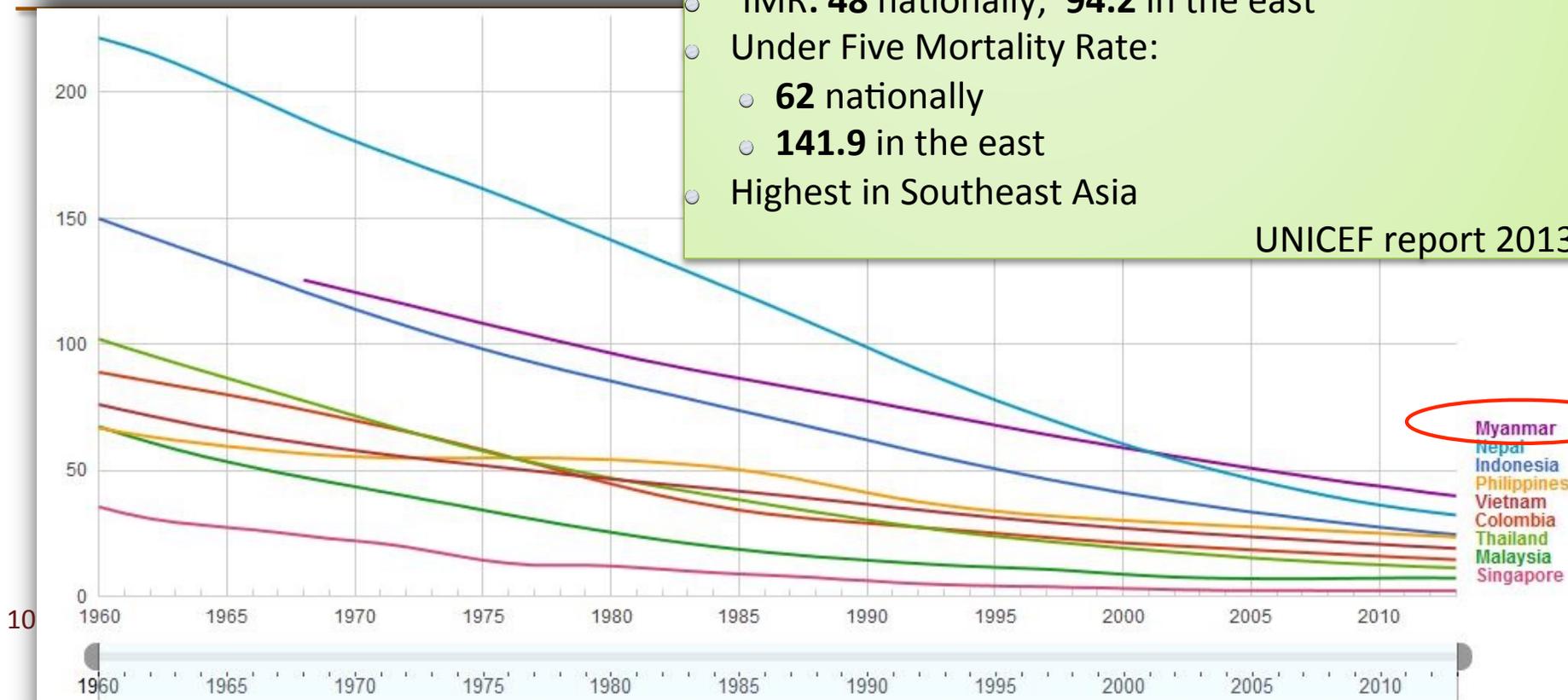
- **200 per 100,000 live births**
- **Three quarters** of all maternal deaths occur:
 - Delivery
 - Immediate post-partum period
- Low access to essential maternal health services



3. Infant Mortality Rate (per 1,000 live births)

- IMR: **48** nationally; **94.2** in the east
- Under Five Mortality Rate:
 - **62** nationally
 - **141.9** in the east
- Highest in Southeast Asia

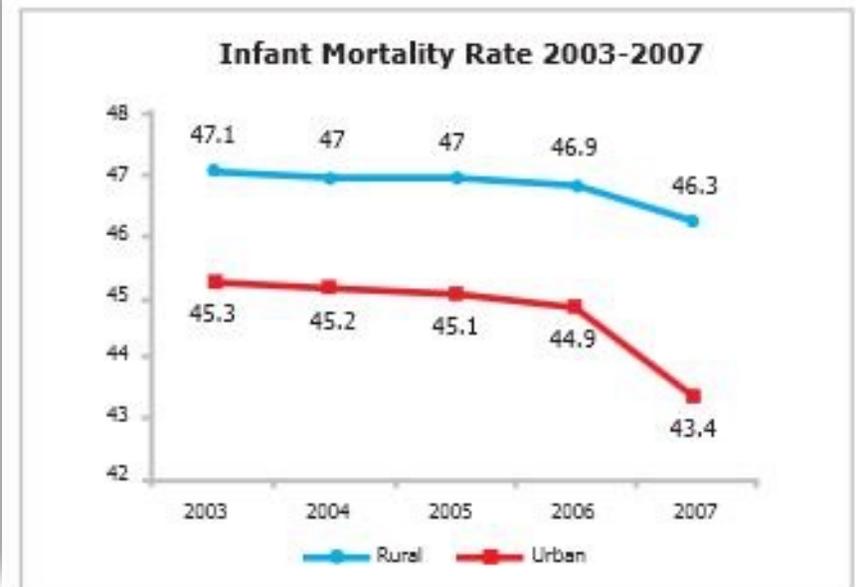
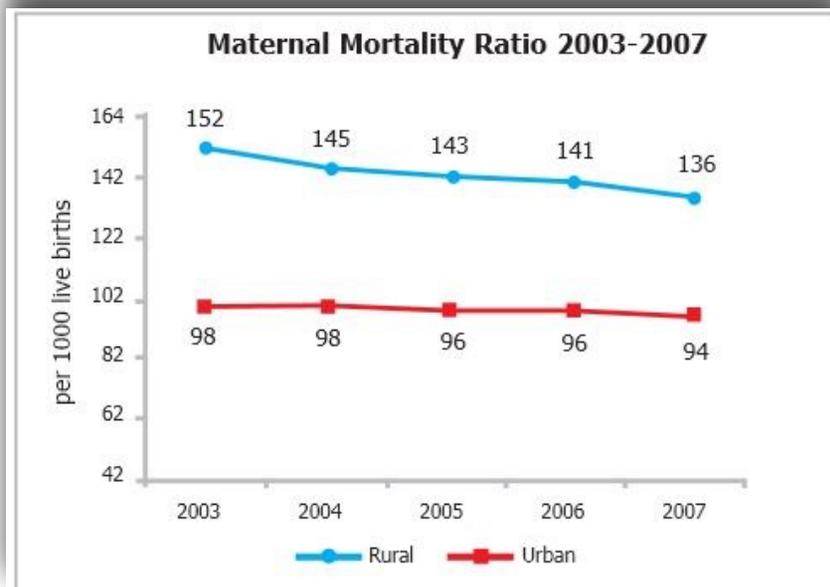
UNICEF report 2013



Data from World Bank Last updated: Apr 17, 2015



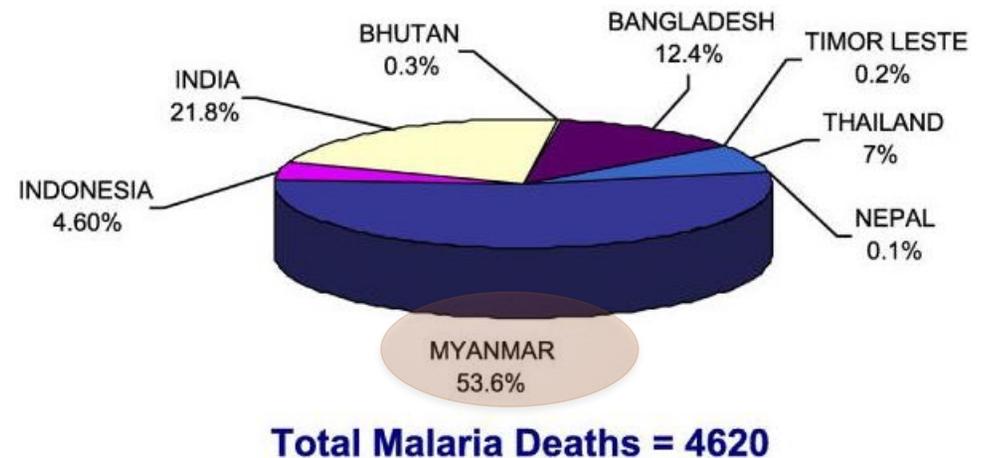
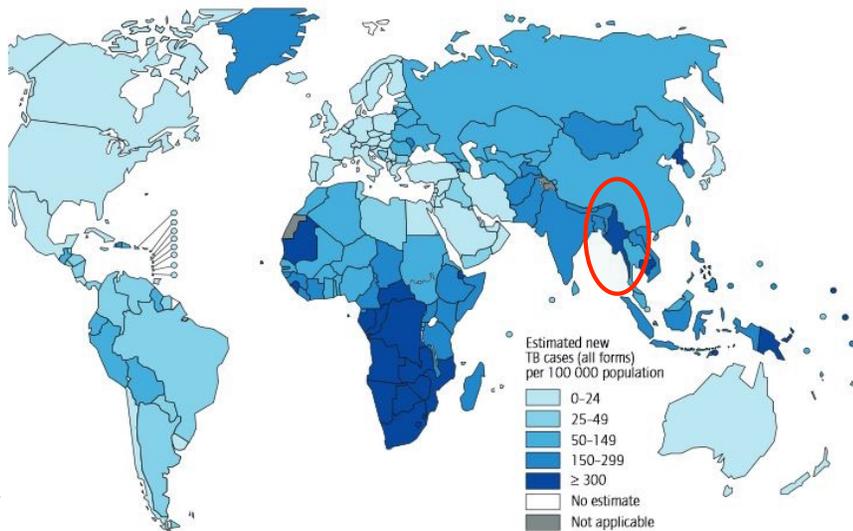
Rural-Urban Difference



4. Communicable Diseases: HIV/TB/Malaria

- High burden of CD: tuberculosis (TB), malaria and HIV/AIDS
- Top three national priority diseases of Myanmar (MOH, 2013)

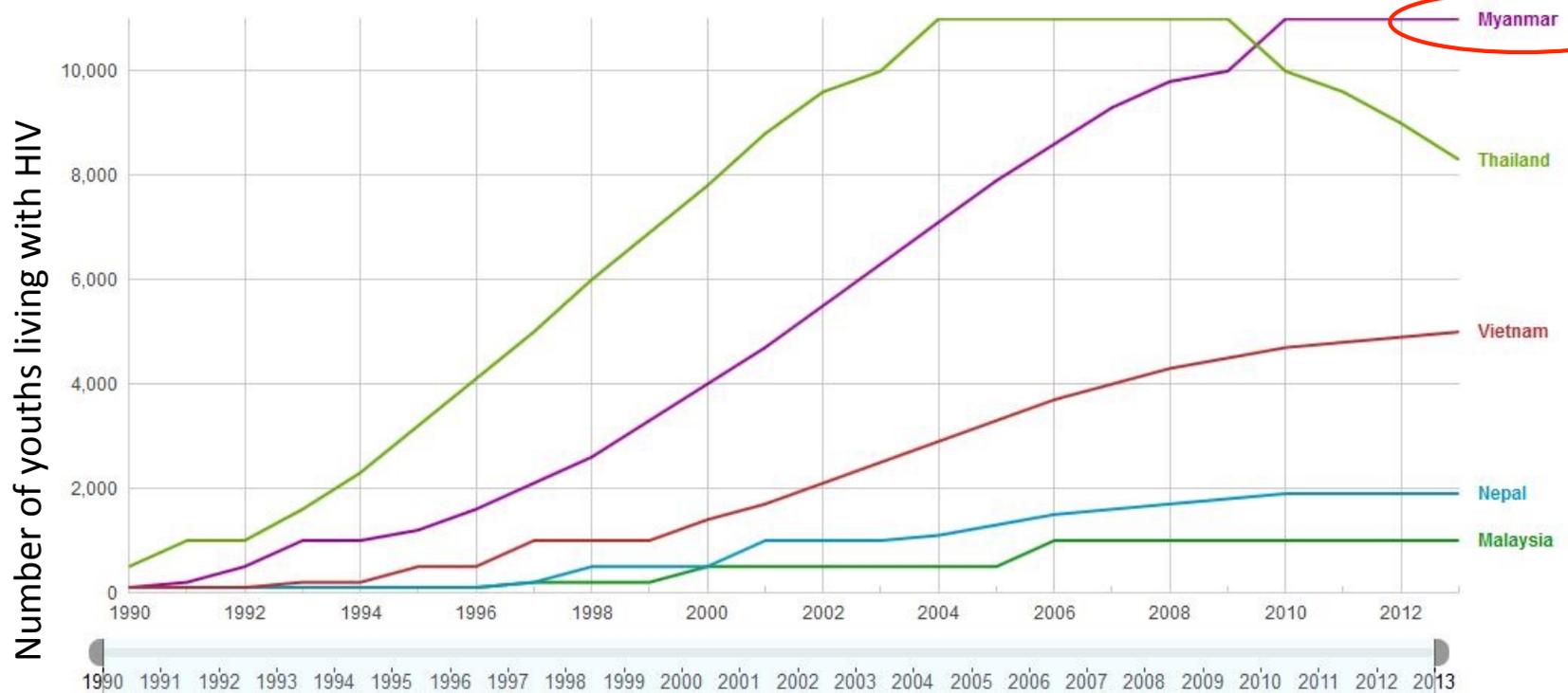
Estimated TB incidence rates, 2011



Distribution of Reported Malaria Deaths in Southeast Asia, 2003



Number of HIV-infected Youths in SEAR (2013)

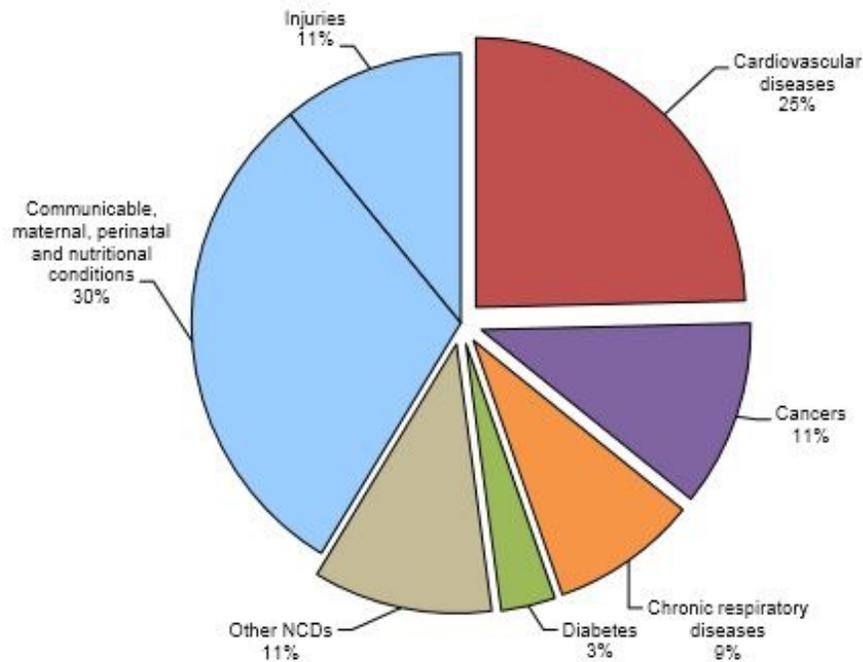


Data from World Bank Last updated: Apr 17, 2015



5. Non-Communicable Diseases

Proportional mortality (% of total deaths, all ages, both sexes)*



Total deaths: 441,000
NCDs are estimated to account for 59% of total deaths.

Five Risk Factors

1. Dietary risks
2. Tobacco smoking
3. Household air pollution from solid fuels
4. High blood pressure
5. High fasting plasma blood sugar

(IHME, 2010)

Source: World Health Organization - *Noncommunicable Diseases (NCD) Country Profiles, 2014.*

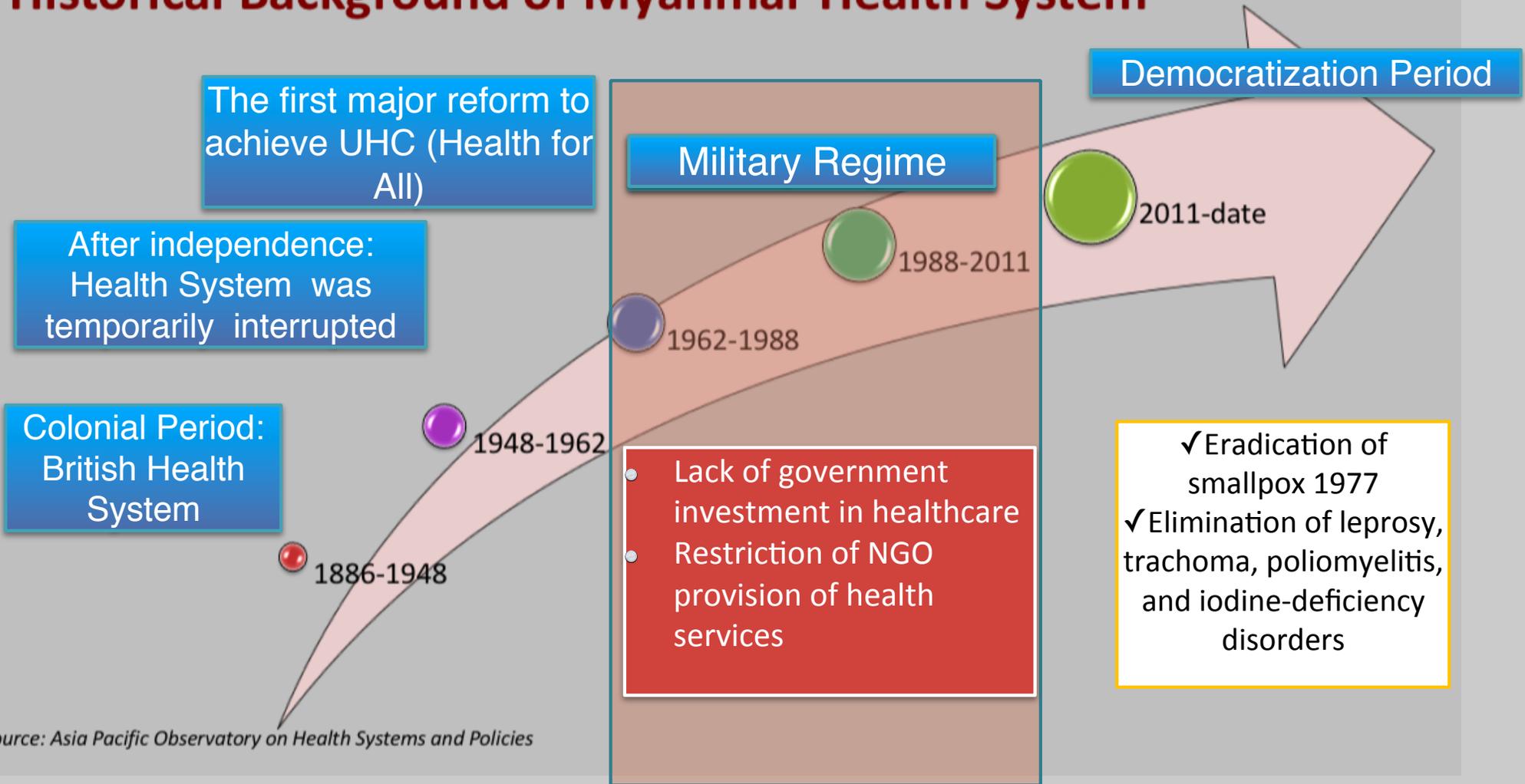


MYANMAR HEALTH SYSTEM

PAST AND PRESENT



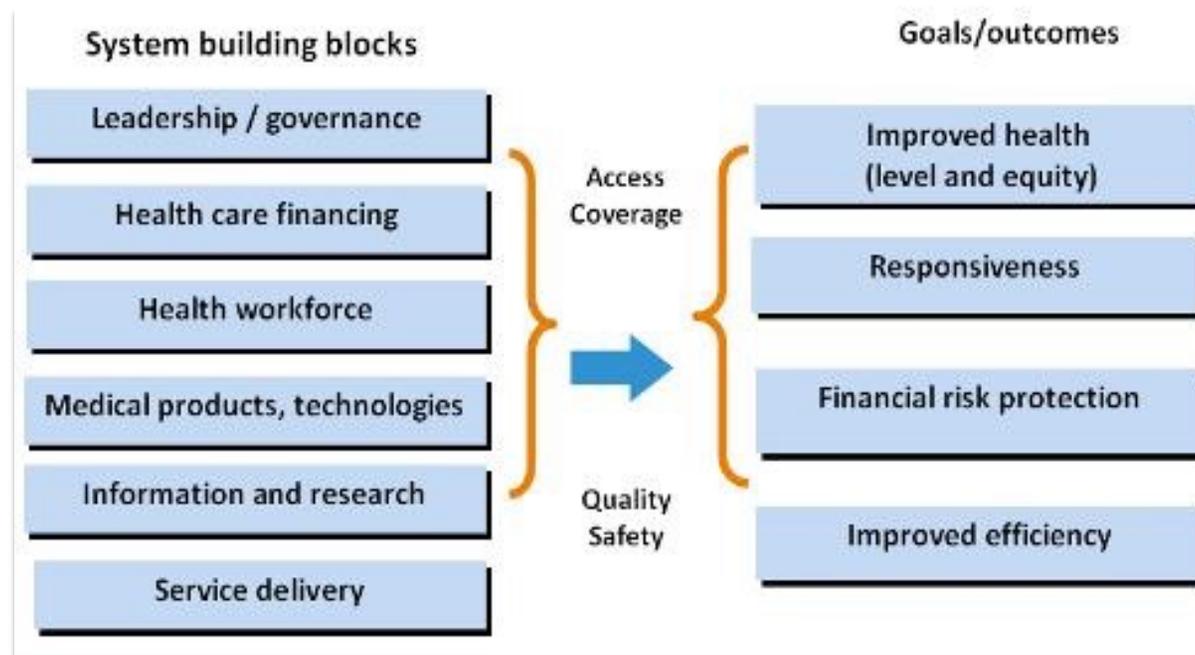
Historical Background of Myanmar Health System



Myanmar Health System in General



A pluralistic mix of public and private systems both in financing and provision



The WHO Health Systems Framework



1. Leadership



Ministry of Health

Union Minister for Health



Deputy Minister

Deputy Minister

Permanent Secretary Office

Department of health professional Resource development and management

Department of Medical Care

Department of Public Health

Department of Medical Research

Department of FDA

Department of Traditional Medicine

UN Agencies, Bilateral, INGOs, ...

- ❖ National Health Policy
- ❖ National Health Plan
- ❖ Myanmar Health Vision 2030
- ❖ Rural Health Development Plan

Other Ministries National NGOs, Private Sector



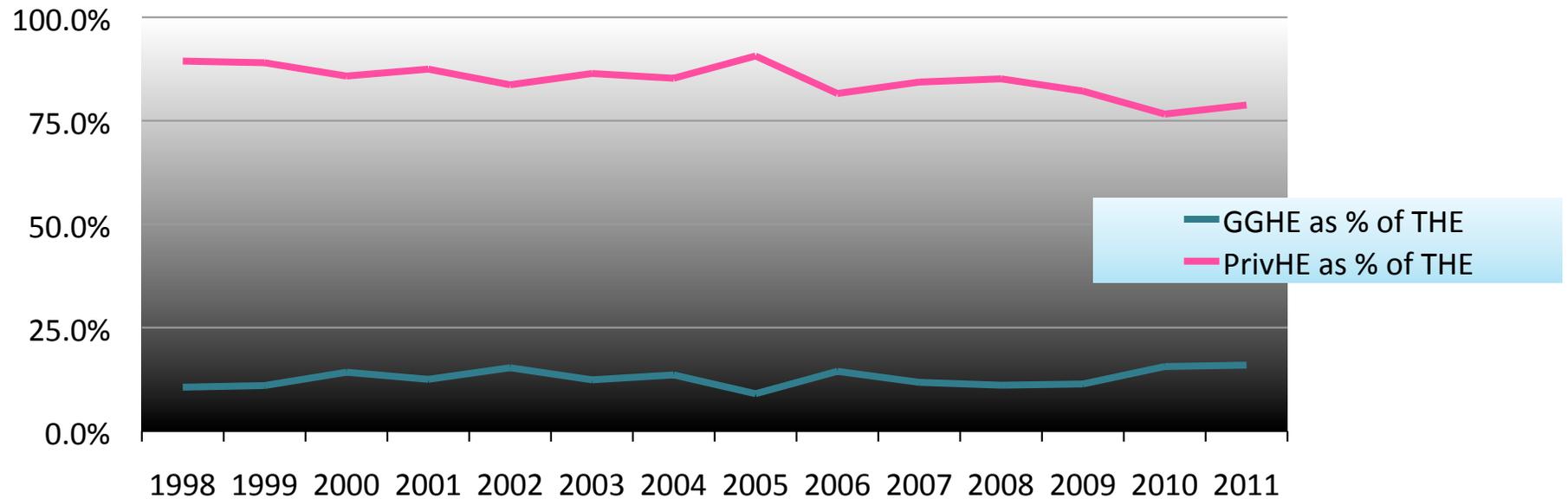
2. Health Financing

- **The government used to be** the main source of financing
- Private out-of-pocket (**OOP**) **payment became the main source** of finance: **cost sharing** in 1993
- Total health expenditure in Myanmar: **2.0–2.4%** of its GDP between 2001 -2011
- **The lowest** among countries in the World Health Organization
- **Donor contributions** remain substantial, at 7% of total health expenditure in 2011 (half what the government spends on health).

Source: Asia Pacific Observatory on Health Systems and Policies



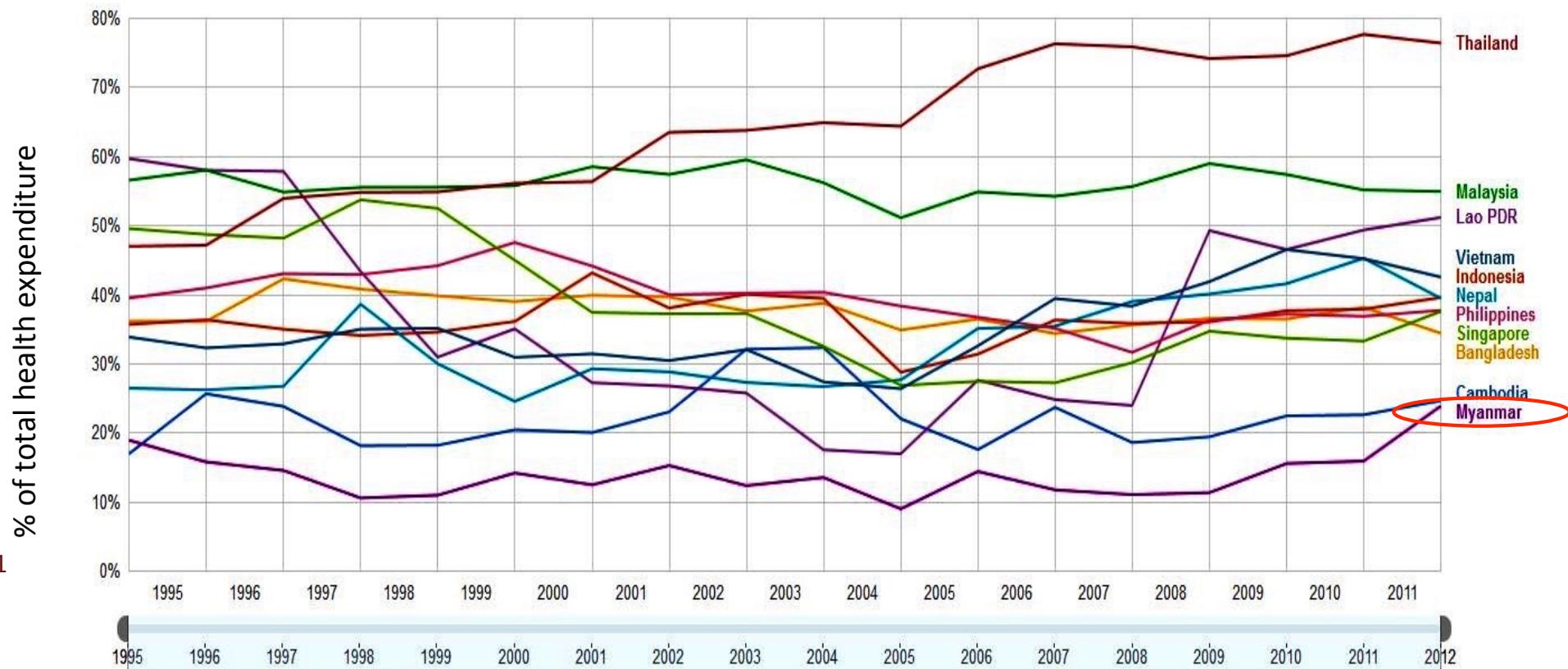
Government and Private Health Expenditure in Myanmar (1998-2011)



²⁰Source: Department of Health Planning, Ministry of Health, Myanmar

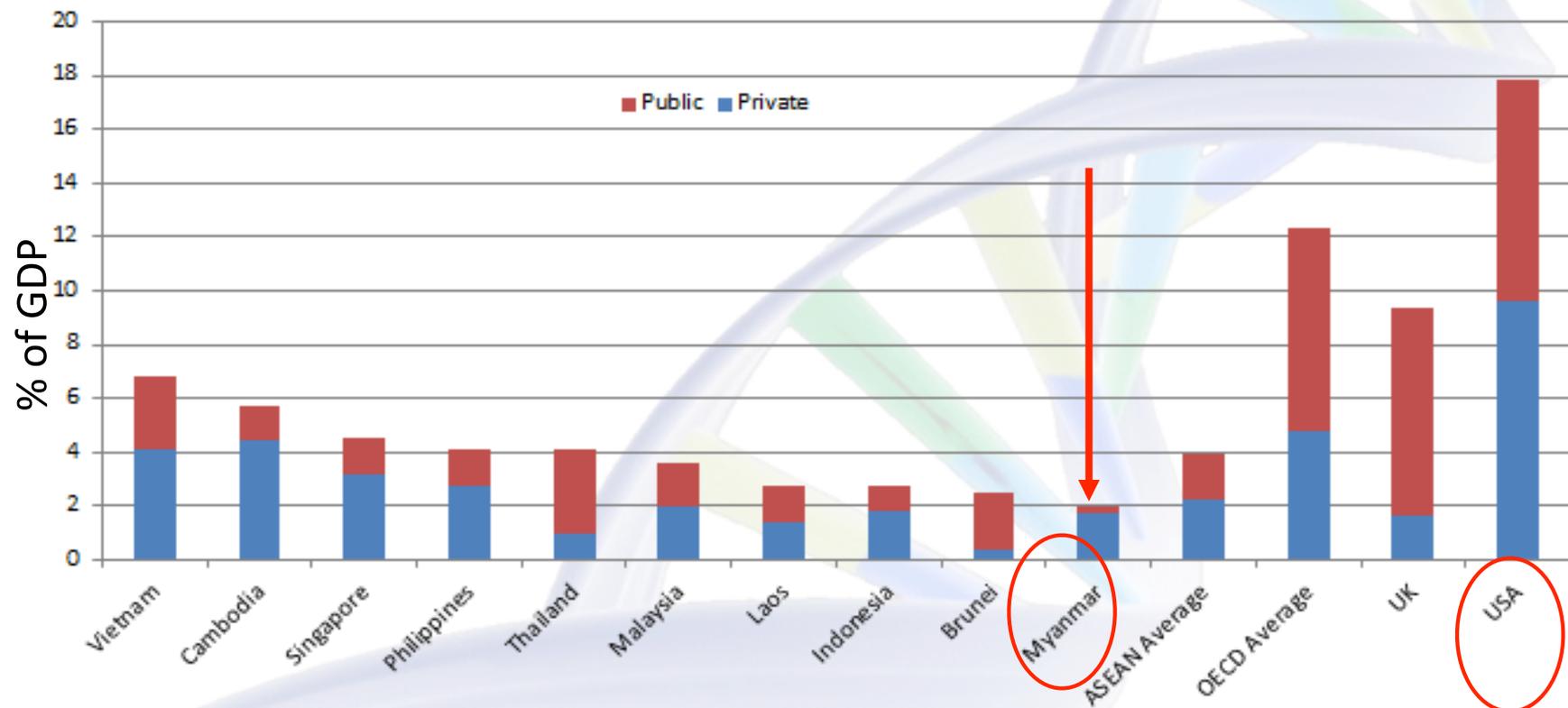


Government Health Expenditure in SEAR



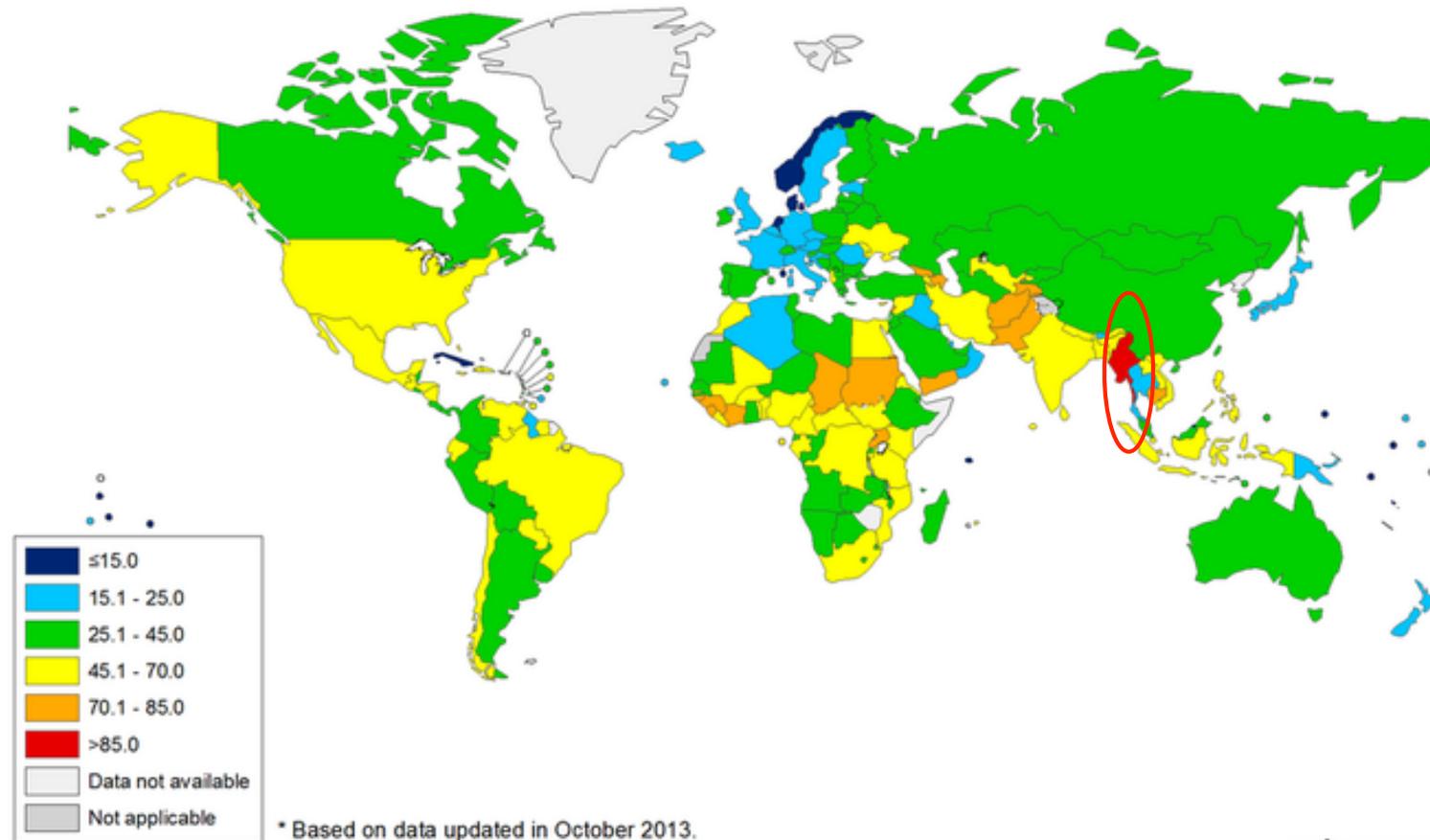
Data from World Bank Last updated: Apr 17, 2015

ASEAN TOTAL HEALTHCARE SPEND AS % GDP = Public + Private



Data from World Bank 2011 (latest available)
(Total health expenditure is the sum of public and private health expenditure)

Private expenditure on health as a percentage of total expenditure on health (in US\$), 2011 *



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: Global Health Observatory, WHO
Map Production: Public Health Information and Geographic Information Systems (GIS)
World Health Organization

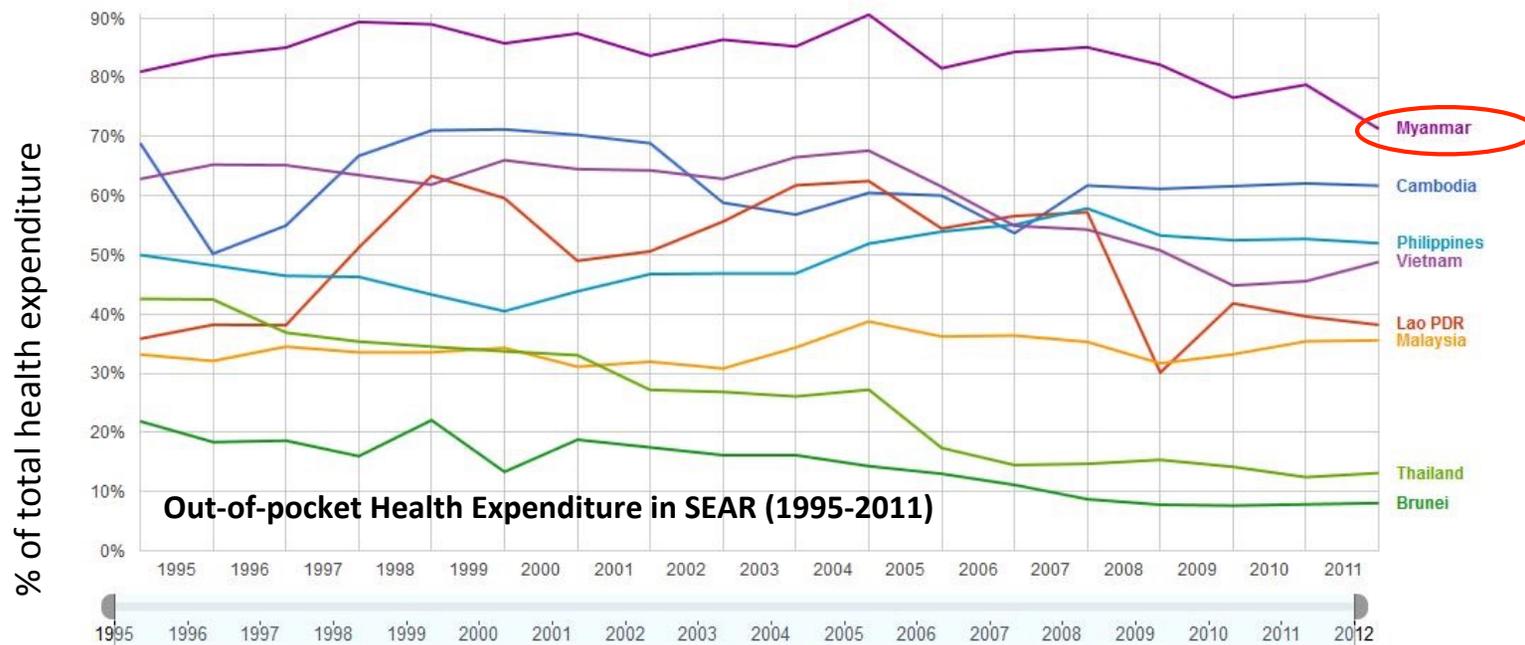


© WHO 2013. All rights reserved.

Out of Pocket Health Expenditure

- Nearly 100% of private health expenditure (2001 -2011)
- Over 30% of households encountered catastrophic health expenditure

(MOH & UNICEF unpublished information, 2012)



Data from World Bank Last updated: Apr 17, 2015



Health Insurance System

- **No health insurance system at all** in Myanmar
- **Social security system** : established in 1956
 - For insured workers who are **employed in the private sector**
 - For enterprises having more than **five employees**
 - **Benefits** : free medical care during illness, payment of 75% of basic salary during maternity leave, full salary for one year for severe injuries, cash payments for death and injury, and survivors' pension
- The scheme covers **less than 1% of the population**

Source: Asia Pacific Observatory on Health Systems and Policies



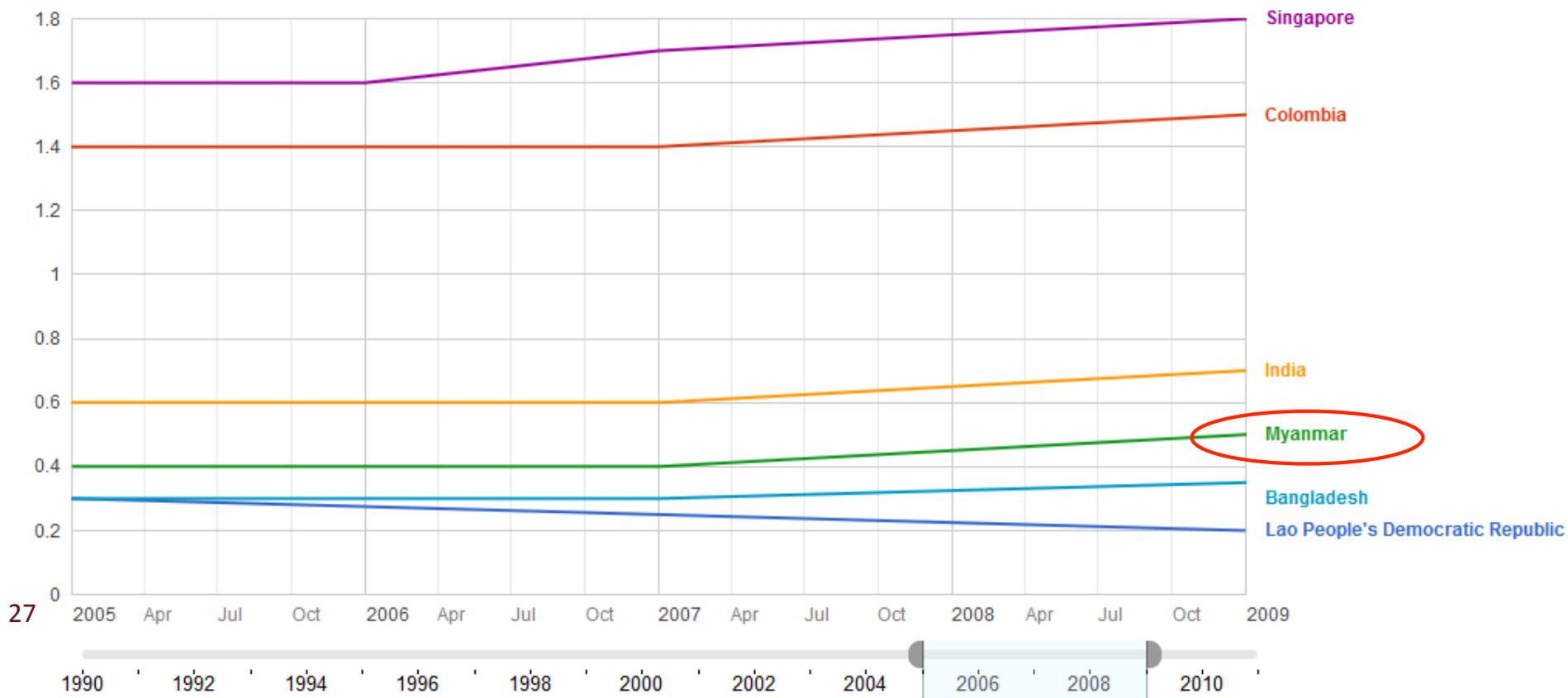
3. Human Resources and Infrastructure

- **The Department of Medical Science** : doctors, nurses and health care workers
- **Density of physicians:** 0.501 per 1000 population
- It was still **far below the global standard** of 2.28 health workers per 1000 population
- **Underproduction** of dental surgeons, pharmacists and technicians as compared to doctors and nurses.
- **Limited registration for foreign doctors** to work in Myanmar

Source: Ministry of Health, Myanmar, unpublished data



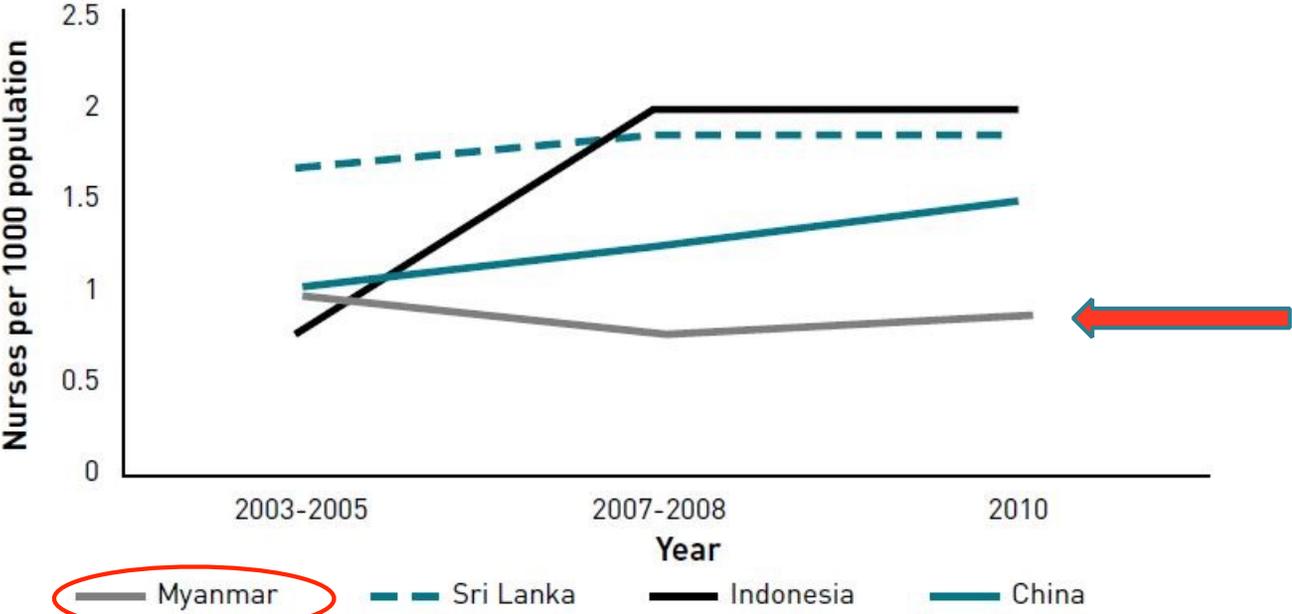
Physicians Per 1000 Population in Selected Countries (2005-2009)



27

Data from Human Development Report 2014, United Nations Development Programme Last updated: Jul 21, 2014

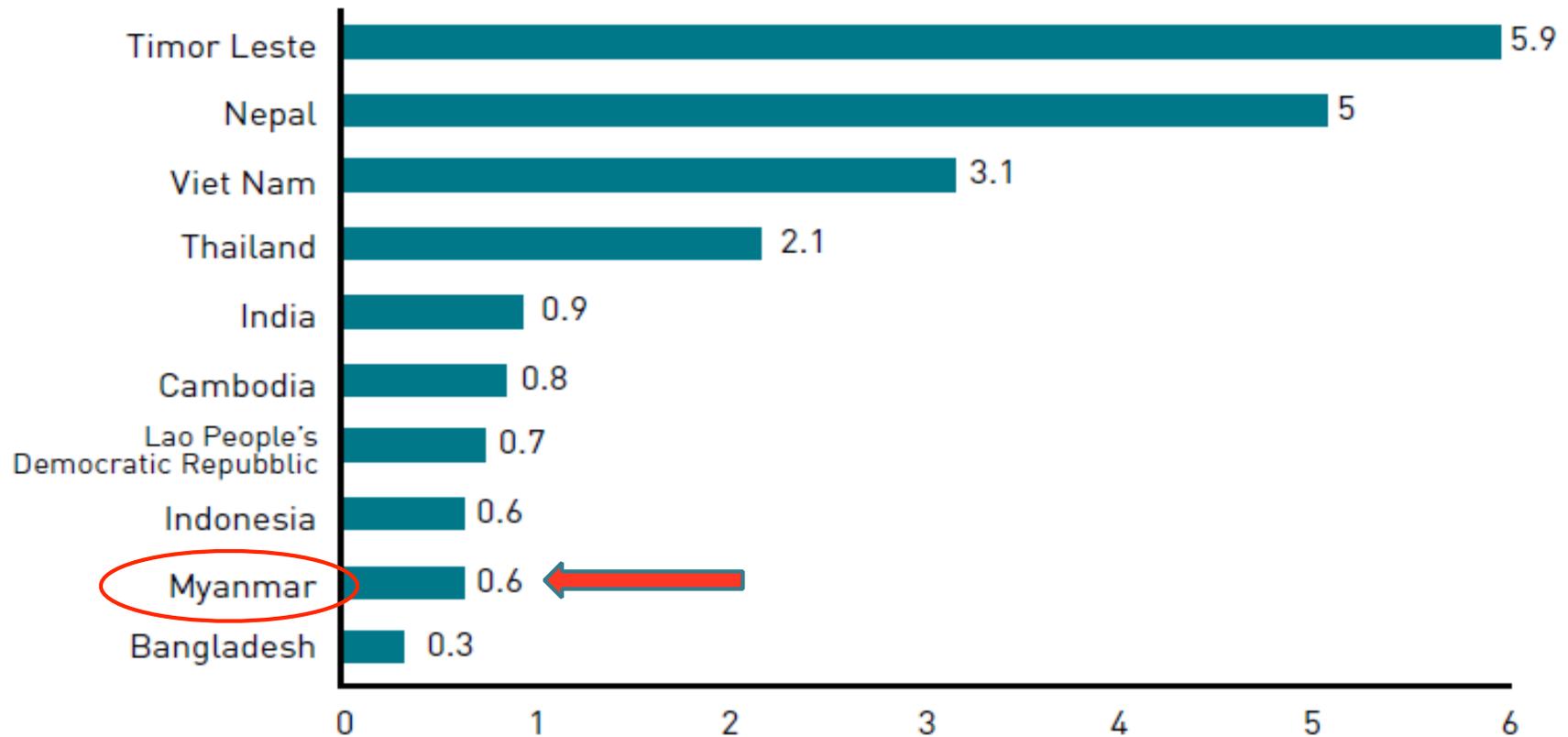
Number of Nurses and Midwives Per 1000 Population (1990-2010)



Source: Asia Pacific Observatory on Health Systems and Policies



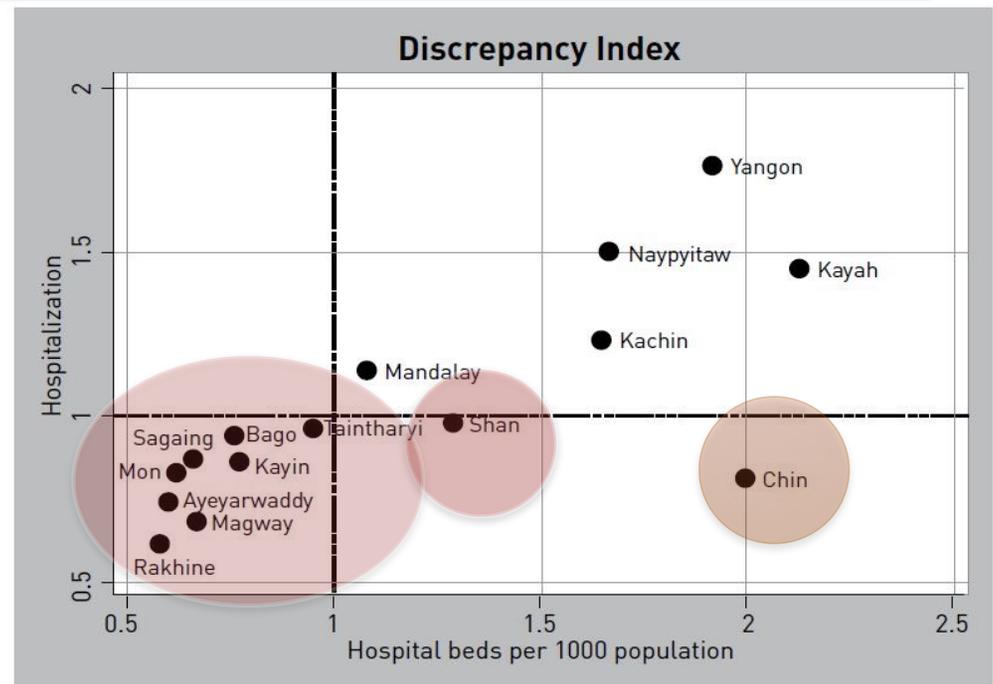
Hospital Beds Per 10,000 Population in SEAR



Source: WHO Global health observatory. Accessed 9 March 2014
<http://apps.who.int/gho/data/view.main.1860>

Inequities in Distribution of Health Care Facilities

- Looking at the distribution of health care facilities and beds across the country, inequities are evident.
- A discrepancy index lower than 1.0 means that a region or state has fewer beds per 1000 population than the national average (1.0).



Source: Health Management Information System, Department of Health Planning, MOH (4 July 2013)

Scatter plot showing discrepancy index of hospital beds and hospital utilization



4. Essential Medical Products and Technologies

Essential Medicine List

- The Myanmar Essential Drugs Programme has revised the National List of Essential Medicines
- The Central Medical Store Depot (CMSD) procured a subset of 92 medicines from the essential medicine list in 2010
- The Ministry of Finance did not provide enough funds to procure all the needed essential medicine (Holloway, 2011)

Ministry of Health, Myanmar, unpublished data



Medical Equipment

- General radiography (e.g. X-ray machines) represents as most basic equipment available at township and station hospitals across the country.
- Computed tomography (CT) was only available in Yangon and Mandalay General Hospitals until 2012.
- Five magnetic resonance imaging (MRI) scanners are operated in big cities.
- There is a need to strengthen regular maintenance mechanism of medical devices.

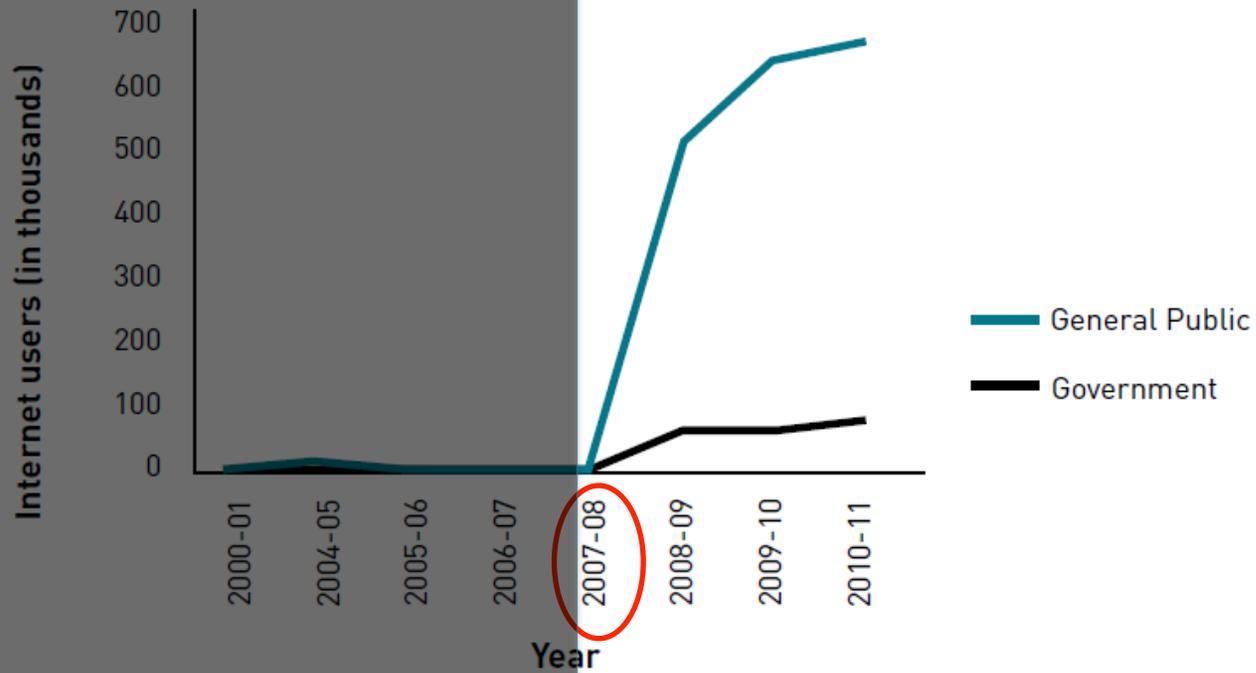


5. Health Information System

- Comprises hospital information, public-health information, human-resources information and logistical information
- Data are collected **manually by individual** using standardized forms
- Dissemination of statistics : **an annual public health statistics report**
- Due to lack of adequate resources and capacity, population-based surveys could not be carried out as frequently as needed



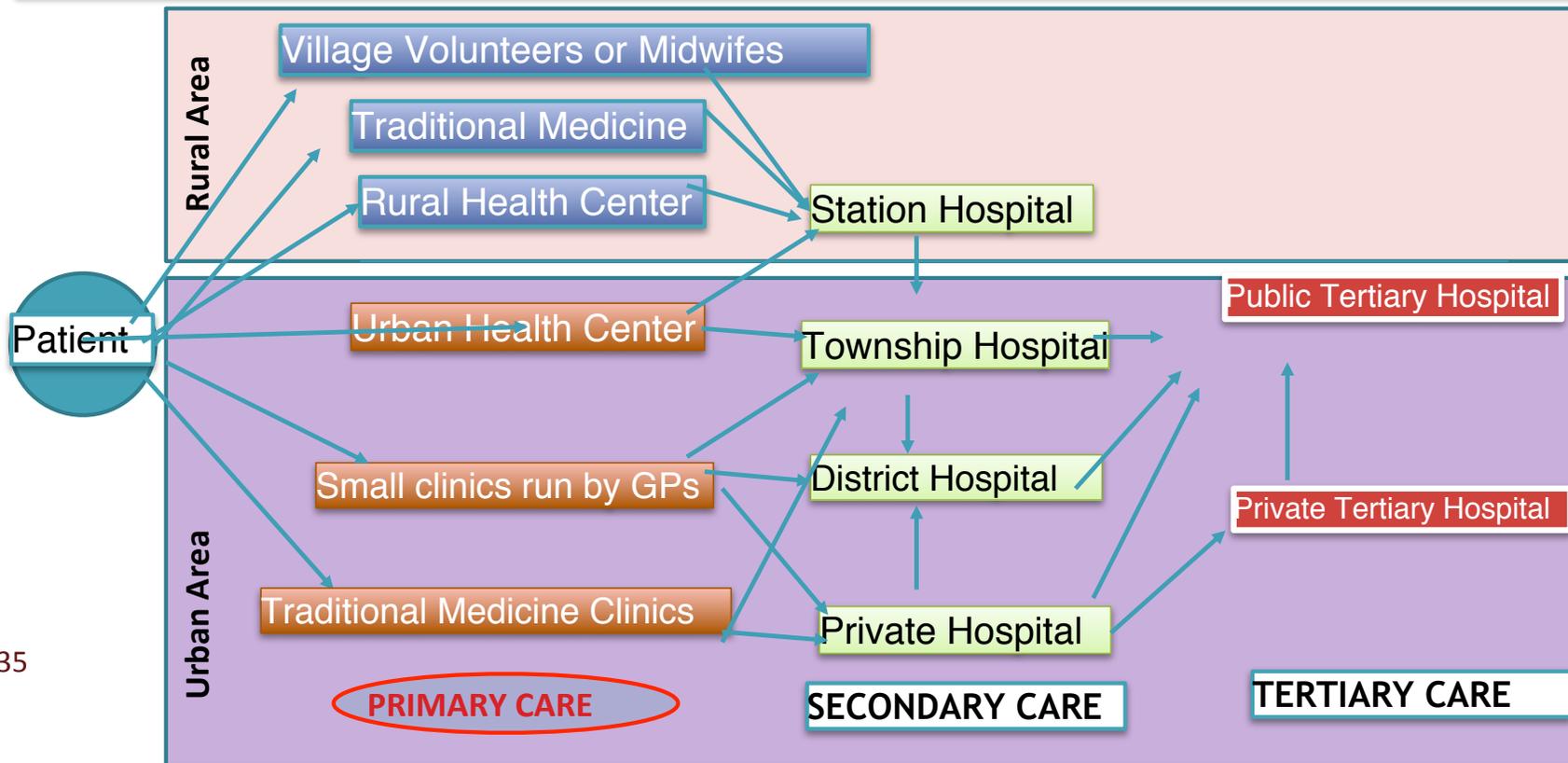
Information Technology



Source: CSO (2012).

Trends in Internet Users in Government Sector and General Public

6. Service Delivery



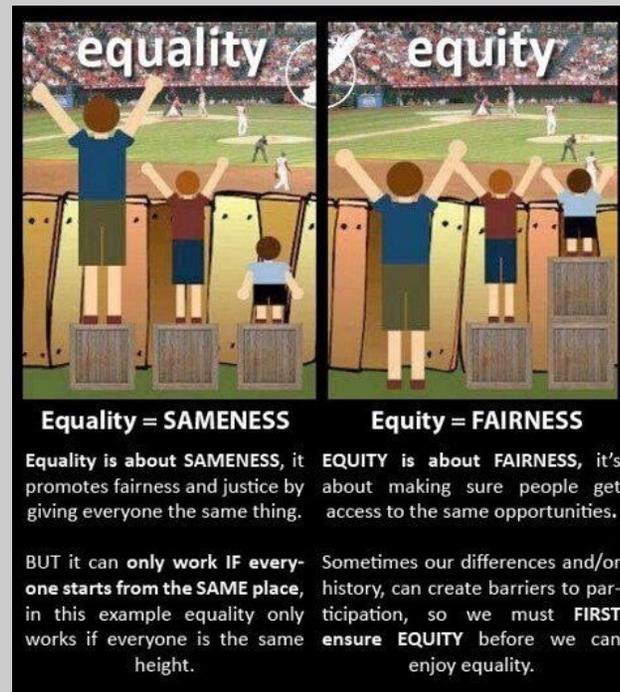
International Ranking

- **Second worst** in terms of ‘overall health system performance’ by the WHO in 2000
- OOP payment is **the highest** in the world, at 81% of total health expenditures
- Estimated three-quarters of Myanmar’s citizens find themselves with **very limited access** to essential health services

World Bank (2012)



Equity of Access to Reproductive Health Services Among Youths in Poor Communities of Mandalay City



Phyu Phyu Thin Zaw, Tippawan Liabsueltrakul, Edward McNeil, Thein Thein Htay
[BMC Health Serv Res.](#) 2012 Dec 15;12:458. doi: 10.1186/1472-6963-12-458.

Study setting background



Map of Myanmar

Mandalay city

- Population: nearly 1 million
- Estimated 10 'resource-limited' suburban communities
- 50,000 living in 'resource-limited' suburban communities



Urban 'Poor' Communities

- Overcrowding
- Poor housing and low socio-economic status
- Unemployment, violence, crime
- Poor schooling facilities
- Poor maternal outcomes

Methodology

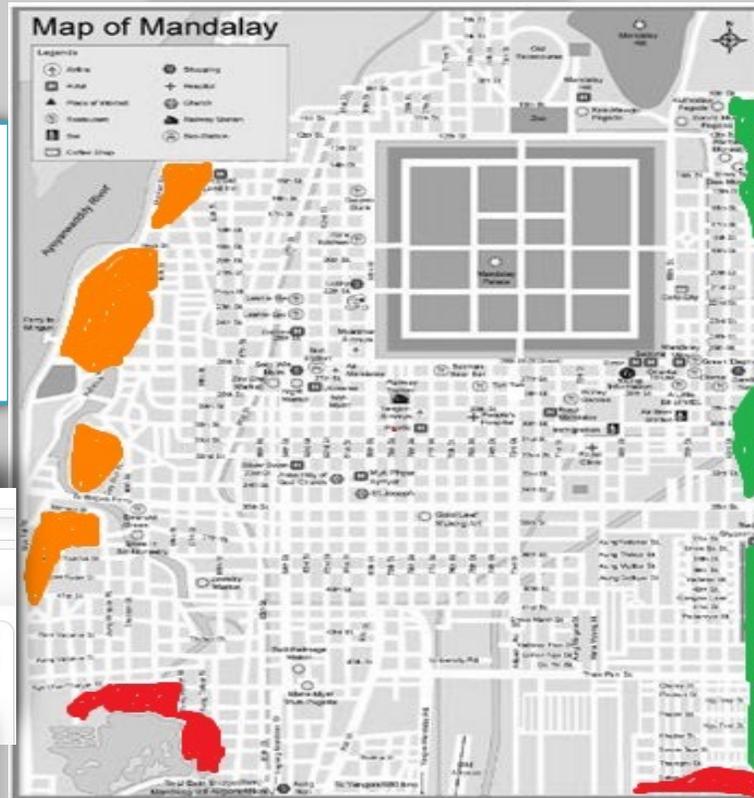
Study Design

Community-based cross-sectional study

Part I :Quantitative methods

Part II: Qualitative methods

Map of Mandalay city



- Formal settlements
- Riverbank settlements
- Polakee settlements

Study setting

All resource-limited suburban communities in Mandalay city

BMC Health Services Research **IMPACT FACTOR 1.66**

Search this journal for

Home Articles Authors Reviewers About this journal My BMC Health Services Research

Research article **Open Access**

Equity of access to reproductive health services among youths in resource-limited suburban communities of Mandalay City, Myanmar

Phyu Phyu Thin Zaw^{*}, Tippawan Liabsuetrakul, Thien Thien Htay and Edward McNeil

Log on BioMed Central Journals

BMC Public Health **IMPACT FACTOR 2.32**

Search BMC Public Health for

Home Articles Authors Reviewers About this journal My BMC Public Health

Research article **Open Access**

Gender differences in exposure to SRH information and risky sexual debut among poor Myanmar youths

Phyu Phyu Thin Zaw^{*}, Tippawan Liabsuetrakul, Edward McNeil and Thien Thien Htay



Data collection at one of the Polakee Communities

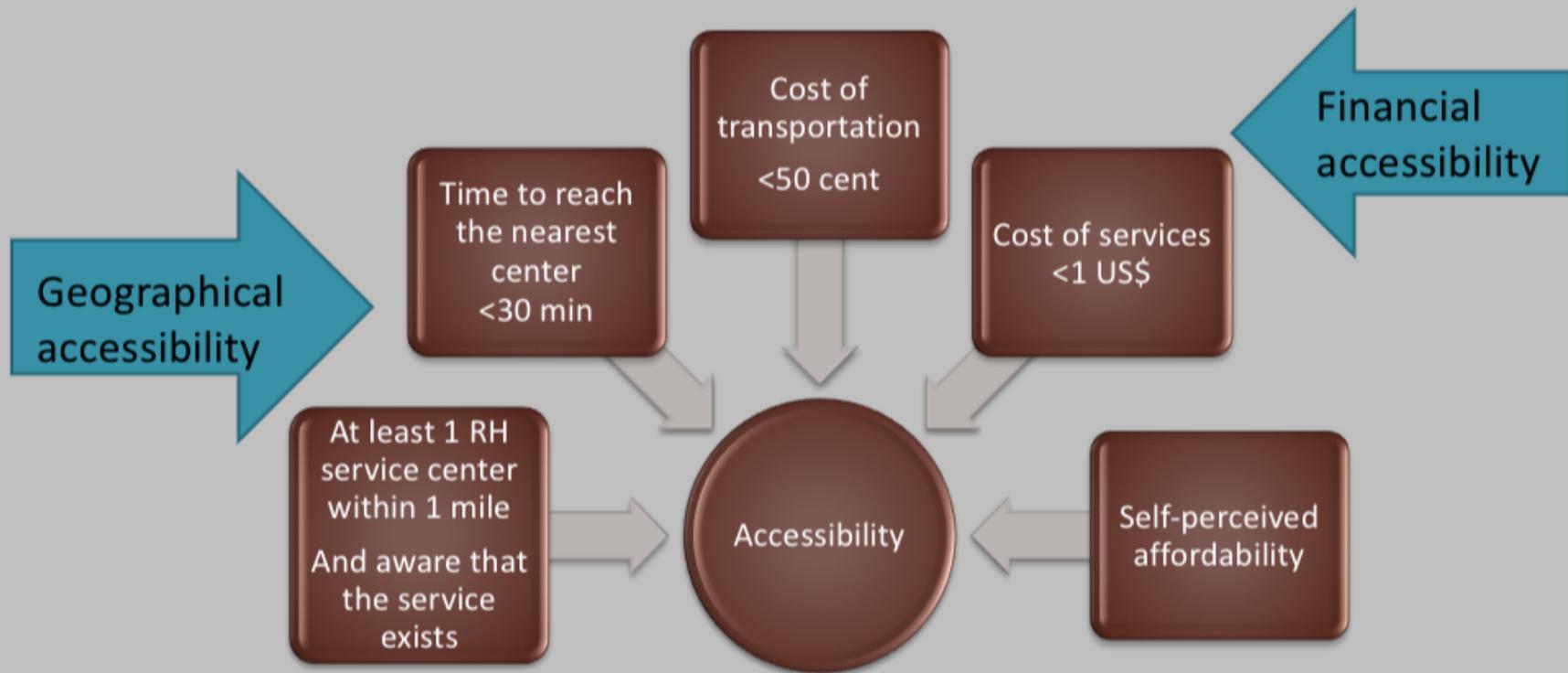
I really want to go to school.



During data collection at one of the Polakee Communities

Outcome Measure: Accessibility to RH Services

The most appropriate method of measurement of accessibility was used.



High accessibility = All criteria met

Accessibility to Reproductive Health Services

- Geographical accessibility (79%)
- Financial accessibility (19%)
- Overall, only **34%** were able to access at least one RH service centre within 30 minutes walk at an affordable cost and were aware that the service existed.

Residence Did Play a Role Even Among the Poorest: Factors associated with high accessibility

Factor	Adjusted OR (95% CI)	P-value*
Youth's place of residence: ref.= Formal Settlements		< 0.001
Polakee Settlements	0.36 (0.15-0.84)	
Riverbank Settlements	0.29 (0.16-0.52)	

Logistic regression analysis adjusting all confounding factors OR: Odds Ratio; CI:Confidence Interval

Recent Changes in Myanmar Health System (2011-2015)



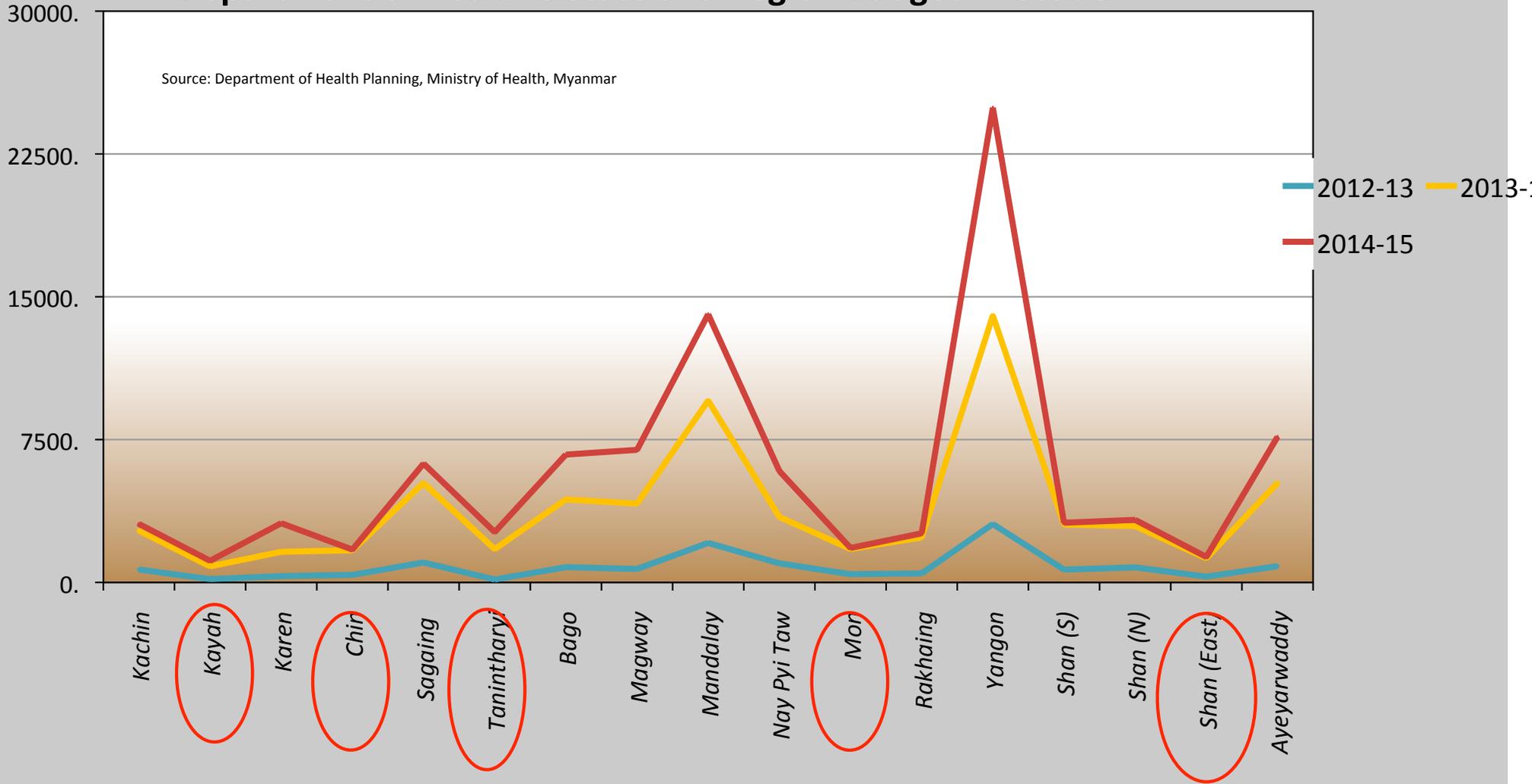
1. Increased in Government Health Expenditure

- Significant increase in health expenditures, which raise the share of GDP allocated to health
 - From 2.4% in 2012 to 3.14% in 2013 and 3.82% in 2015
 - Nine fold increase from 2011 to 2015
 - Share of Public Health Expenditure in Total Health Expenditure from 20% to 34%
- Focus on medicines, medical equipment, and building infrastructure for health insurance
- Level of health investment is still low compared to the demand for health care
- Still the lowest compared to other countries in SEAR



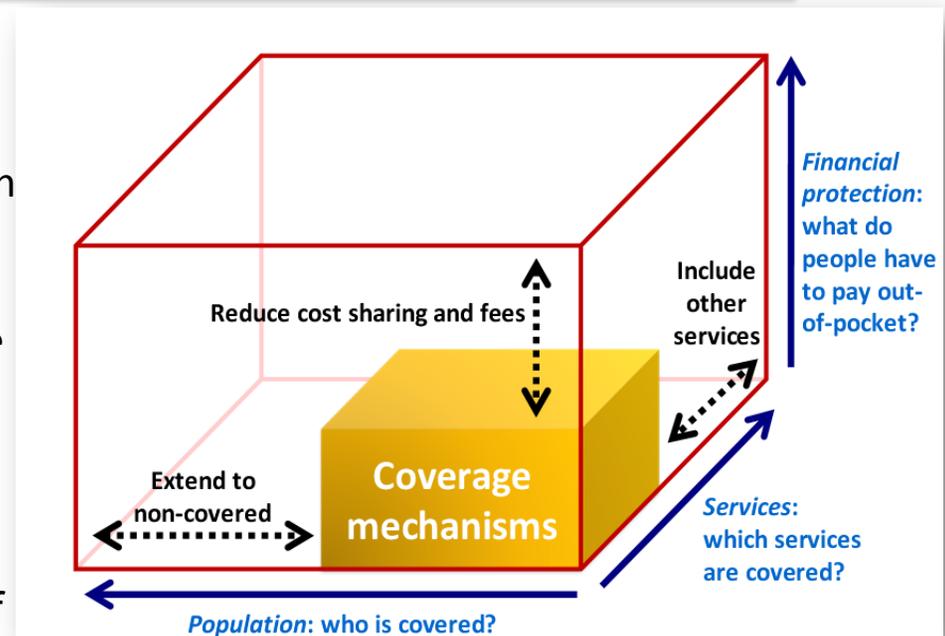
Department of Health's State and Region Budget Allocation

Source: Department of Health Planning, Ministry of Health, Myanmar



2. Actions towards Universal Health Coverage in 2030

- **The Social Security Law** (August 2012)
- **Full medical reimbursement** for every civil servant (Civil Servant Medical Benefit Scheme) in 2016
- **Expansion of payroll tax financed social health insurance** for formal sector (private and civil servant)
- **Development of new social protection policy** (2014) to provide health and social benefit for informal sectors
- Stakeholders' meetings for development of **feasible private health insurance** for affordable population



How to cover the informal sectors

Three mechanism to cover this informal sector:

- Full contributions by members (the Philippines)
- Partially subsidized by the Government either central or local (Vietnam, China)
- Covered by tax financed scheme (Thailand)

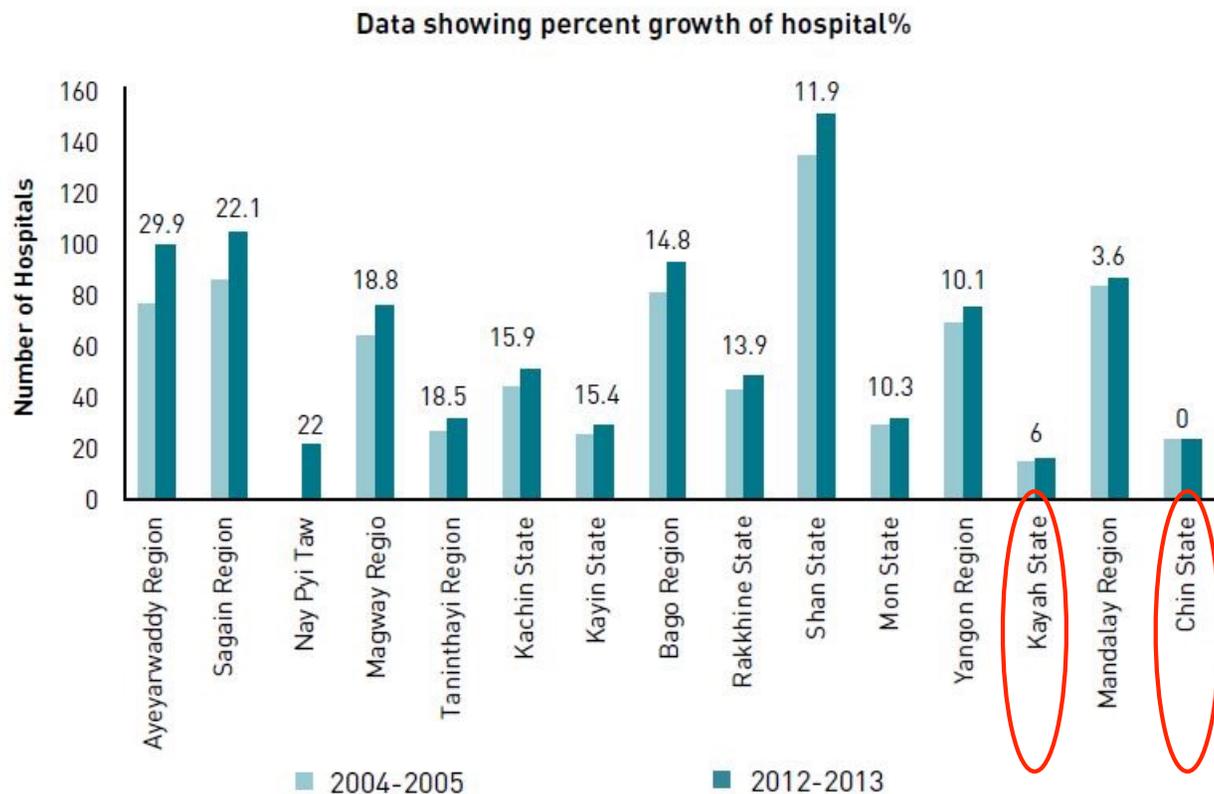


3. Health Infrastructure and Human Resources

- **Human Resources for Health Master Plan:** prepared in 2012 for the next 20–30 years
- **Appointing new health care workers:**
 - Many professionals graduated, but were not employed by the government.
 - Over 28 000 registered medical doctors: about 12 000 were employed by public agencies
- Increased **salary:** Doctors (**from 150 US\$ to 250 US\$**)
- **Expansion of hospitals and beds** provision
- **30 CT scanners** by the end of 2013: available in the general hospitals of all region and state Hospitals.
- Supplied **essential drugs** to the hospitals (Quick-Win approaches)



Growth of MOH hospitals by region and state (2004–2005 to 2012–2013)



4. Increased International Collaborations

- Collaboration with various actors in Health Sector **since 2011**
- The Three Millennium Development Goals (**3MDG**) **Fund** started in 2013
- Many other international nongovernmental organizations **INGOs** (e.g. PATH, MSI, Save the Children, World Vision, Oxfam, Medecins Sans Frontieres, AMDA, ADRA, CARE International, Burnet Institute, Merlyn, Malteser)
- Working separately to finance specific health-development programmes



A Quick Glance at Regional Health Reforms

Singapore - Advanced healthcare, high spend, promotes private contributions

Achieved UHC

Thailand, Brunei, Malaysia - Good to high standard of healthcare with focus on higher quality

Indonesia, Vietnam, Philippines - Basic healthcare provision

2019, 2014, 2016

Cambodia, Laos, Myanmar - Poor and low level healthcare provision

Aimed towards UHC

- Health-care systems are diverse in SEAR
- Range from dominant tax-based financing to social insurance and high Out-of-pocket OOP payments
- Government spending is generally low in ASEAN, except Thailand and Brunei
- Singapore's health system is the best based on international assessments
- Thailand's Universal Health Coverage: the most successful story reaching the poor (98% coverage)
- Increased government health spending: the more significant gains

Source: Stephan Lock, Global Practices, 2013

Summary 1

- Myanmar is facing a **very important transitional period**
- 82% of total health spending in Myanmar is out-of-pocket, the **highest** in the world
- The recent increase in government spending for health is encouraging; however it is **not sufficient**
- **Social Protection System** is in the developmental stage
- **Financial-risk protection** for the majority of the population who are poor and from informal sectors is still lacking



Summary 2

- **Human resources** for health are constrained
- **Job satisfaction** among health care provider is unsatisfactory
- **Inequities in distribution** of the health workforce, particularly at the most peripheral level of the system
- **Very weak health information system**
- **A large influx of international development partners** and donor funding



Conclusions and Recommendations

1. **Equity** of access to health care: of vital importance
2. **Government commitment:** more investment in health
3. **International aid:** adhere to the Paris Declaration on Aid Effectiveness
4. The country's future healthcare advancements will most likely stem from the **private sector:** appropriate policies should be considered
5. No major **evaluation or impact study** has been carried out so far specifically linked to these reforms and such studies are strongly suggested



References

1. Asian Development Bank (ADB) (1996). Country synthesis of post evaluation finding in Myanmar. Manila: ADB Post Evaluation Office.
2. Asian Development Bank (ADB) (2012). Myanmar in transition: opportunities and challenges. 22 February 2013
3. Central Statistical Organization (CSO) (2009). Statistical year book 2008. Nay Pyi Taw: CSO, Ministry of National Planning and Economic Development.
4. Central Statistical Organization (CSO) (2012). Statistical year book 2011. Nay Pyi Taw: CSO, Ministry of National Planning and Economic Development.
5. Department of Health National Tuberculosis Programme (DOH-NTP) (2011). The five-year National Strategic Plan (NSP) (2011–2015). Nay Pyi Taw: DOH.
6. Health System in Transition, The Republic of Union of Myanmar, Health System Review, Asia Health Observatory on Health Systems and Policies
7. World Health Organization (WHO) (2000). The world health report 2000. Health systems: improving performance. Geneva: WHO (http://www.who.int/whr/2000/en/whr00_en.pdf, accessed 26 November 2013].
8. Handler A, Issel M, Turnock B. A Conceptual Framework to Measure Performance of the Public Health System. *American Journal of Public Health*. 2001;91(8):1235-1239.
9. Dhillon PK, Jeemon P, Arora NK, et al. Status of epidemiology in the WHO South-East Asia region: burden of disease, determinants of health and epidemiological research, workforce and training capacity. *International Journal of Epidemiology*. 2012;41(3):847-860. doi:10.1093/ije/dys046.



Acknowledgment

- Prof. Karen Eggleston and all the members of APARC
- WHO-HRP for the financial support
- DMR-UM and Ministry of Health (Myanmar)
- My research team as well as all the poor and marginalized groups from Myanmar



THANK YOU!



Welcome to Myanmar, the Golden Land!