



# Comparative health systems: a global perspective

**Global Health CME Course**

**January 17, 2018**

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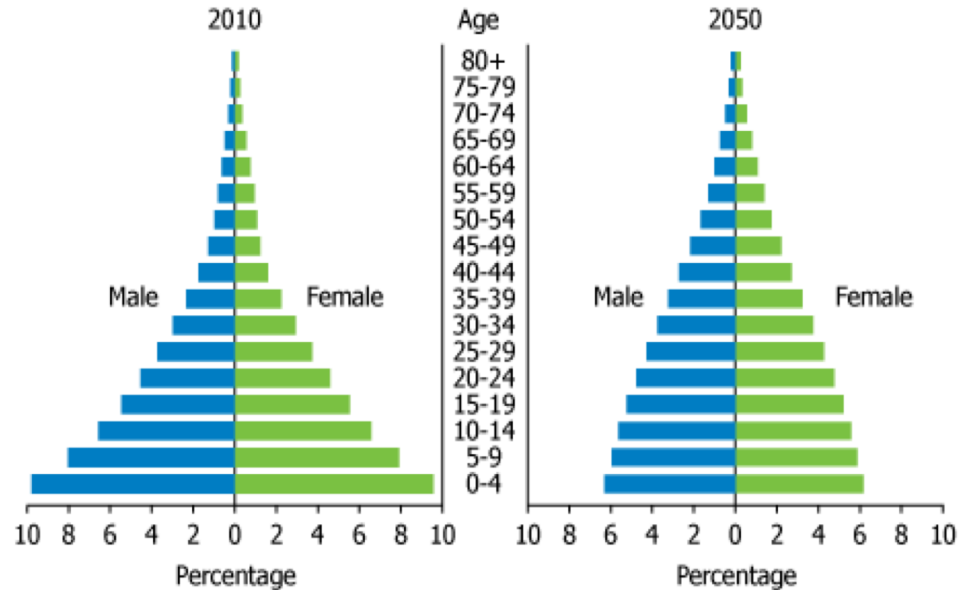
# Objectives

- 1 The Health Sector Globally
- 2 Comparing Health Systems
- 3 Organizing Health Systems
- 4 Practice Using the Health System Map



# Everyone Is Living Longer

## UGANDA



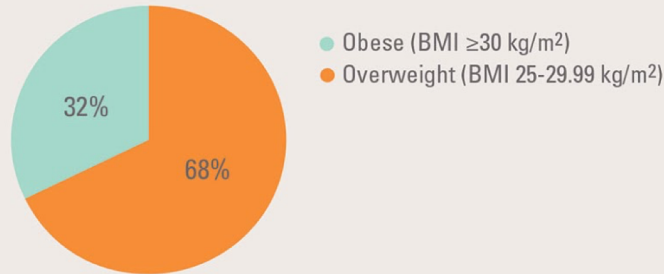
United Nations Population Division. (2011). World Population Prospects: The 2010 Revision. Retrieved October 13, 2017, from <http://www.prb.org/publications/datasheets/2011/world-population-data-sheet/uganda.aspx>



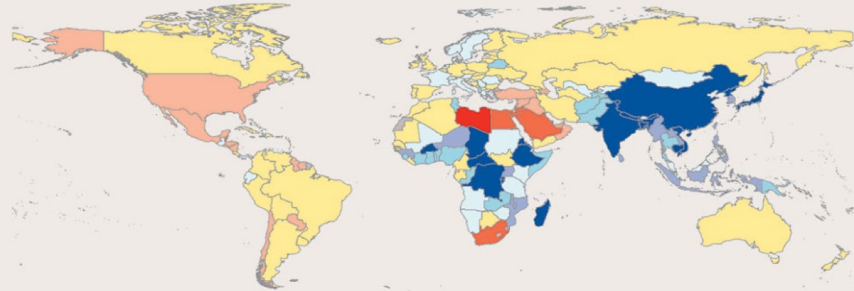
# Too Many People Are Getting Fatter

**7** COUNTRIES THAT HAVE OBESITY PREVALENCE  
EXCEEDING 50% IN WOMEN:  
TONGA, KUWAIT, KIRIBATI, THE FEDERATED STATES  
OF MICRONESIA, LIBYA, QATAR, AND SAMOA

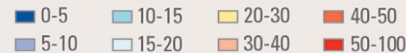
GLOBAL BREAKDOWN OF **OBESITY AND OVERWEIGHT**, 2013



## OBESITY IN WOMEN WORLDWIDE, 2013



Prevalence (%)



Based on findings published in *The Lancet* in 2014. Learn more at: [www.healthdata.org/gbd](http://www.healthdata.org/gbd)



**W** UNIVERSITY of WASHINGTON

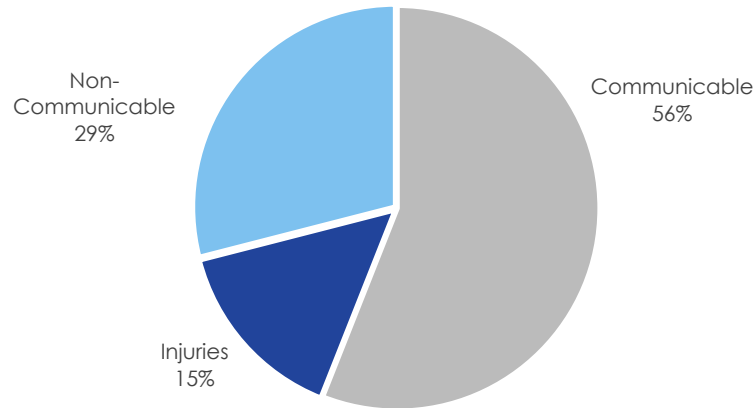




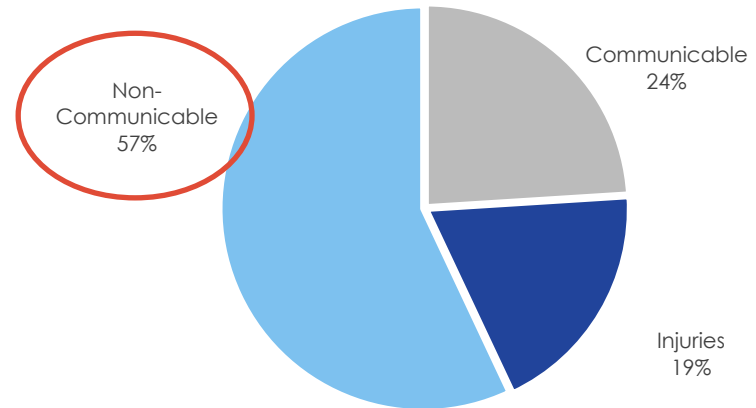
# Diseases of the rich ... aren't just of the rich anymore

## Third Epidemiologic Transition

Disease Burden Estimates - India 1990



Disease Burden Projections – India 2020



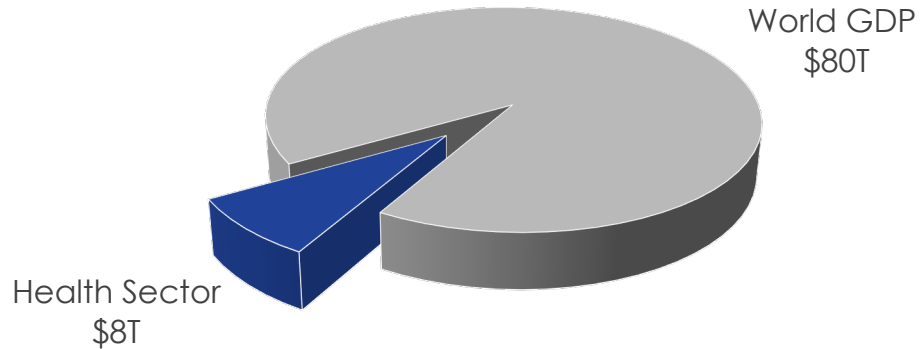


# The Facts

**The health sector is:  
One of the world's largest industries  $\approx$  \$ 8 trillion/year**

 **10% of global GDP**  
(bigger than defense  $\approx$  2.3%)

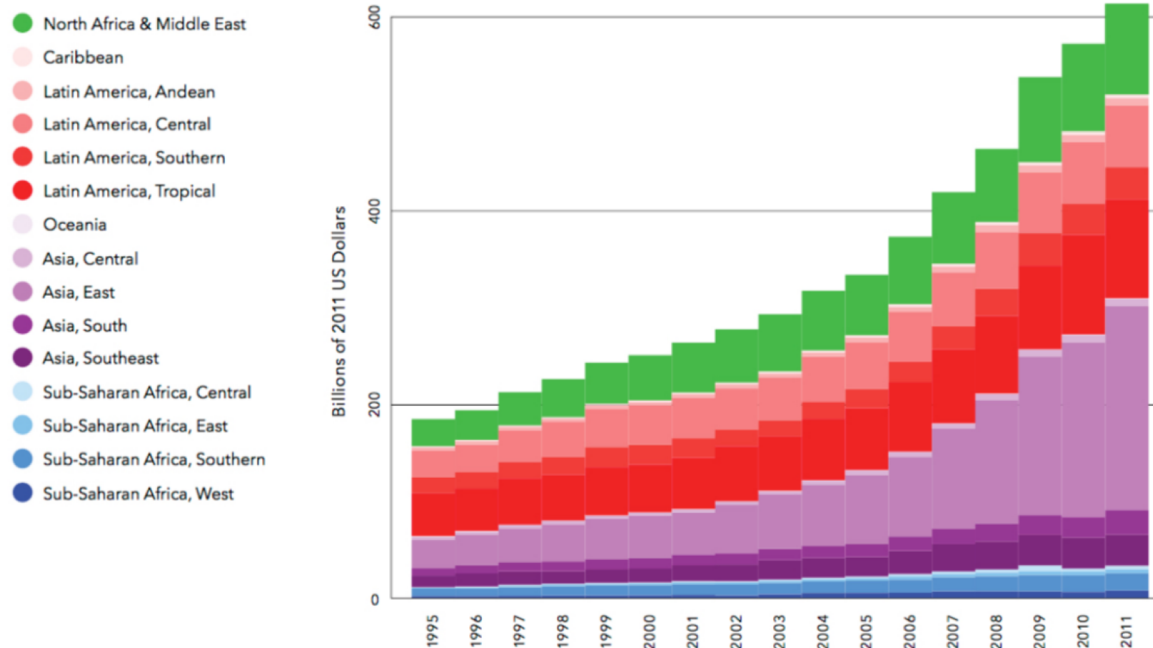
Health Sector Spending as a Percent of World GDP (in trillions)





# And Spending on Health Is Growing

Public health expenditure in developing countries excluding funds from development assistance – IHME (2013)



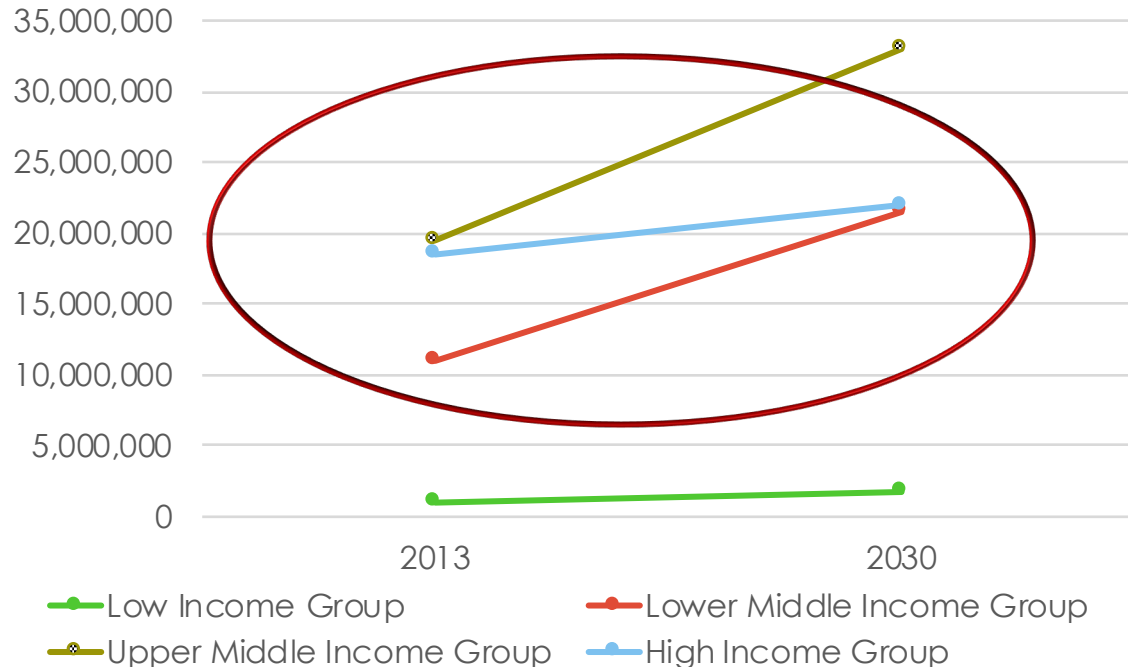
Source: Institute for Health Metrics and Evaluation. Financing Global Health 2013: Transition in an Age of Austerity. Seattle, WA: IHME, 2014.  
Available online from [www.healthdata.org](http://www.healthdata.org). (Formatted by [www.OurWorldInData.org](http://www.OurWorldInData.org))



# As Wealth, Access, and Quality Increase ... So Does Demand for Healthcare

**Demand for  
healthcare and  
health workers  
estimated for 2013,  
projected for 2030**

Demand for Health Workers by World Bank Income Group  
(2013-2030)

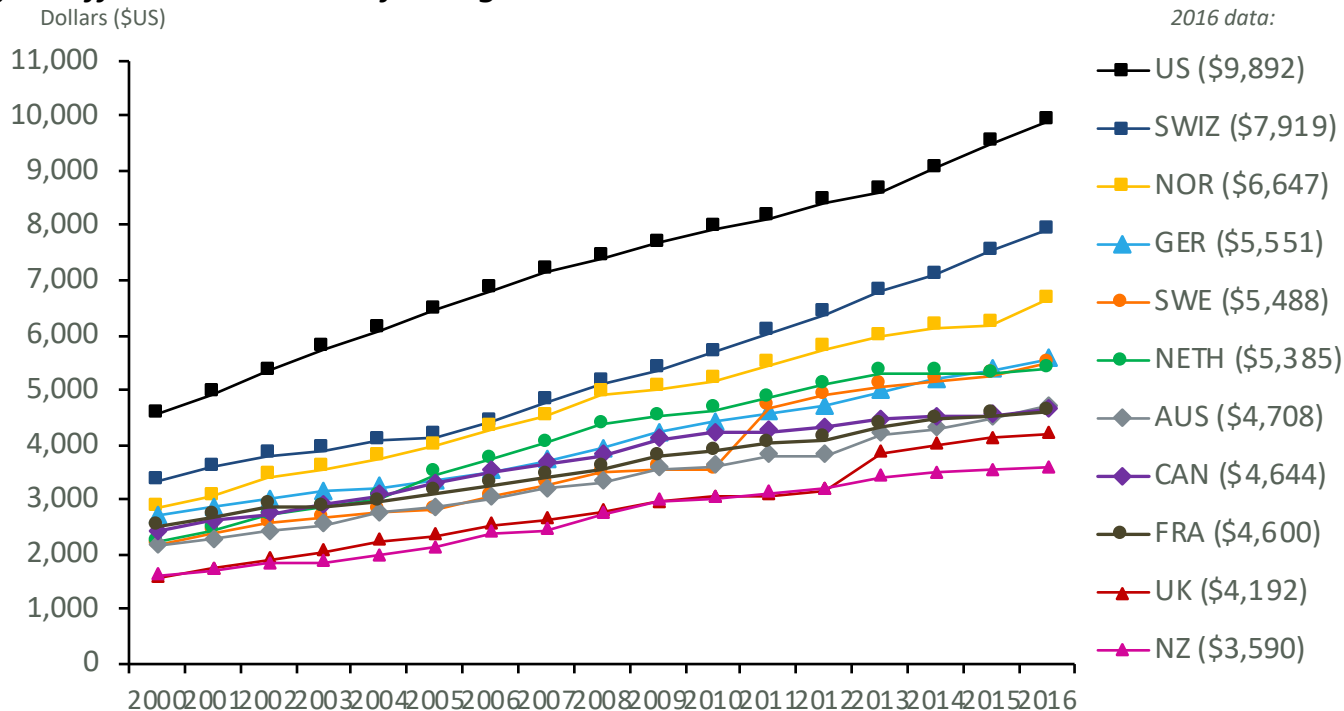


# Objectives

- The Health Sector Globally
- **Comparing Health Systems**

# Health Care Spending per Capita, 2000–2016

*Adjusted for Differences in Cost of Living*

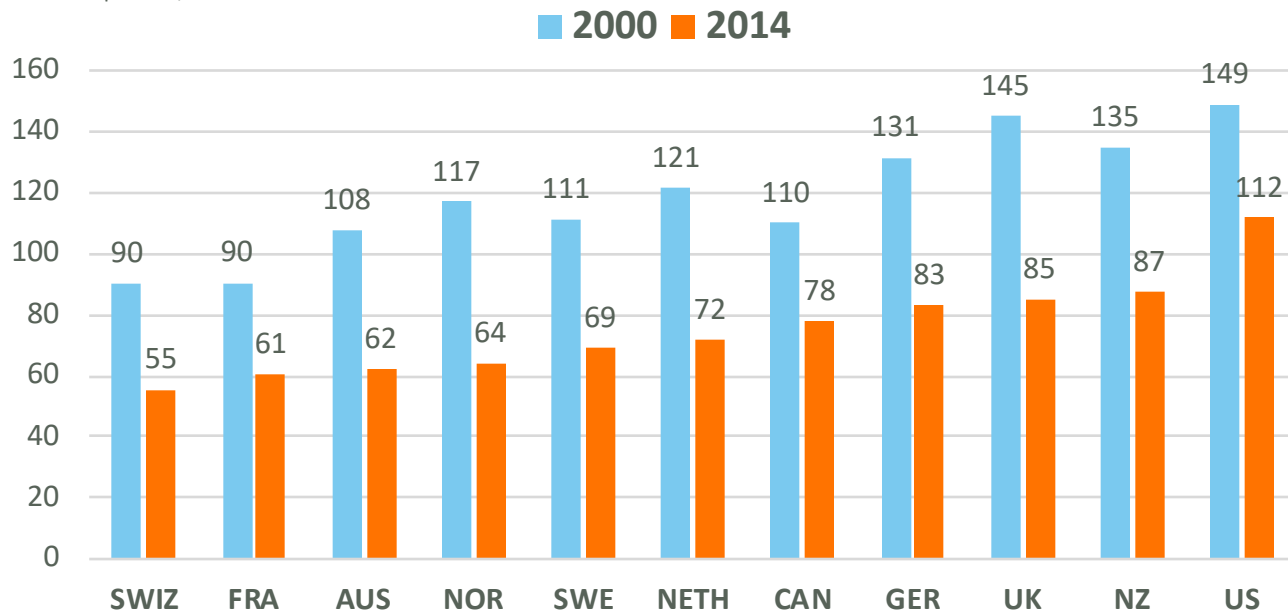


Current expenditures on health per capita, adjusted for current US\$ purchasing power parities (PPPs). Based on System of Health Accounts methodology, with some differences between country methodologies (Data for Australia uses narrower definition for long-term care spending than other countries).

Source: OECD Health Data 2017.

# Mortality Amenable to Health Care, 2000 and 2014\*

Deaths per 100,000

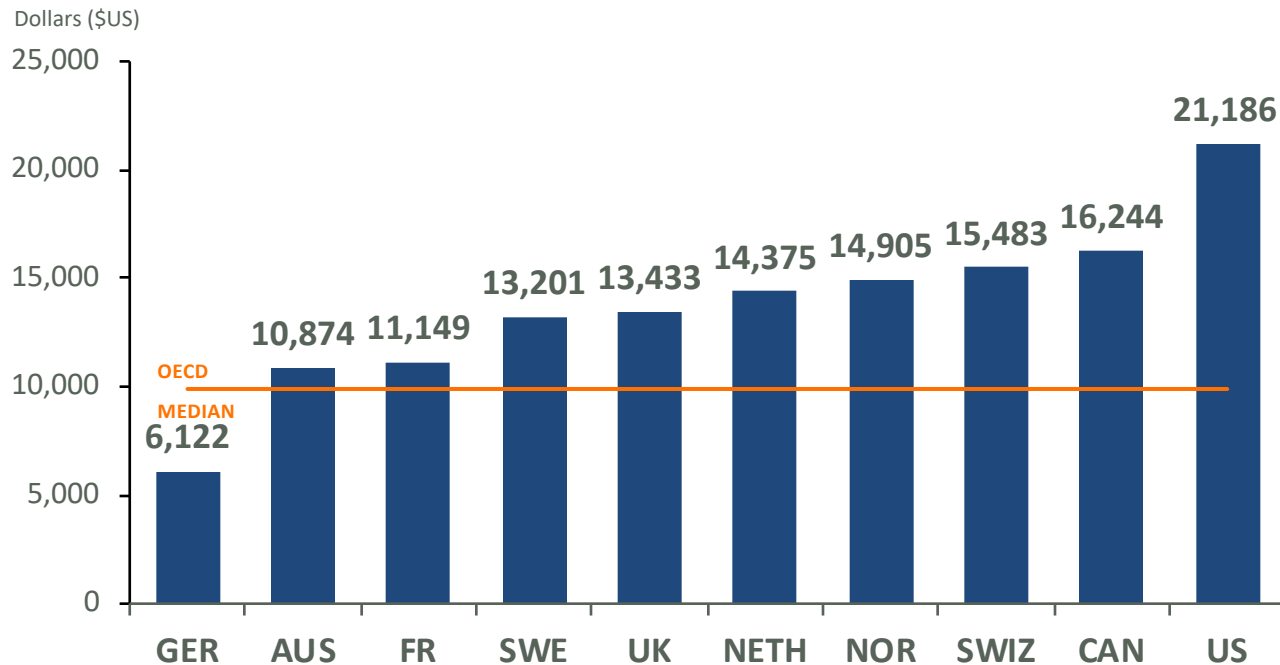


\*Trends in amenable mortality for selected countries, 2000-2014. Data from 2014 in all countries except Canada (2011), France (2013), Netherlands (2013), NZ (2012), Switzerland (2013), UK (2013). WHO Mortality files (number of deaths by age group) and populations (except Human Mortality Database for Canada, UK and the USA). List of amenable causes: Nolte & McKee 2004 (Australia, Canada, NZ, Nor, US) Calculations by European Observatory on Health Systems and Policies (2016), Amenable mortality causes based on Nolte & McKee, 2004. Mortality and population data from WHO mortality files, released September 2016 (population data for Canada and the USA from Human Mortality Database). Age-specific rates standardised to European Standard Population 2013.

Source: Marina Karanikolos, European Observatory on Health Systems and Policies (2017).

# Hospital Spending per Discharge, 2015\*

*Adjusted for Differences in Cost of Living*



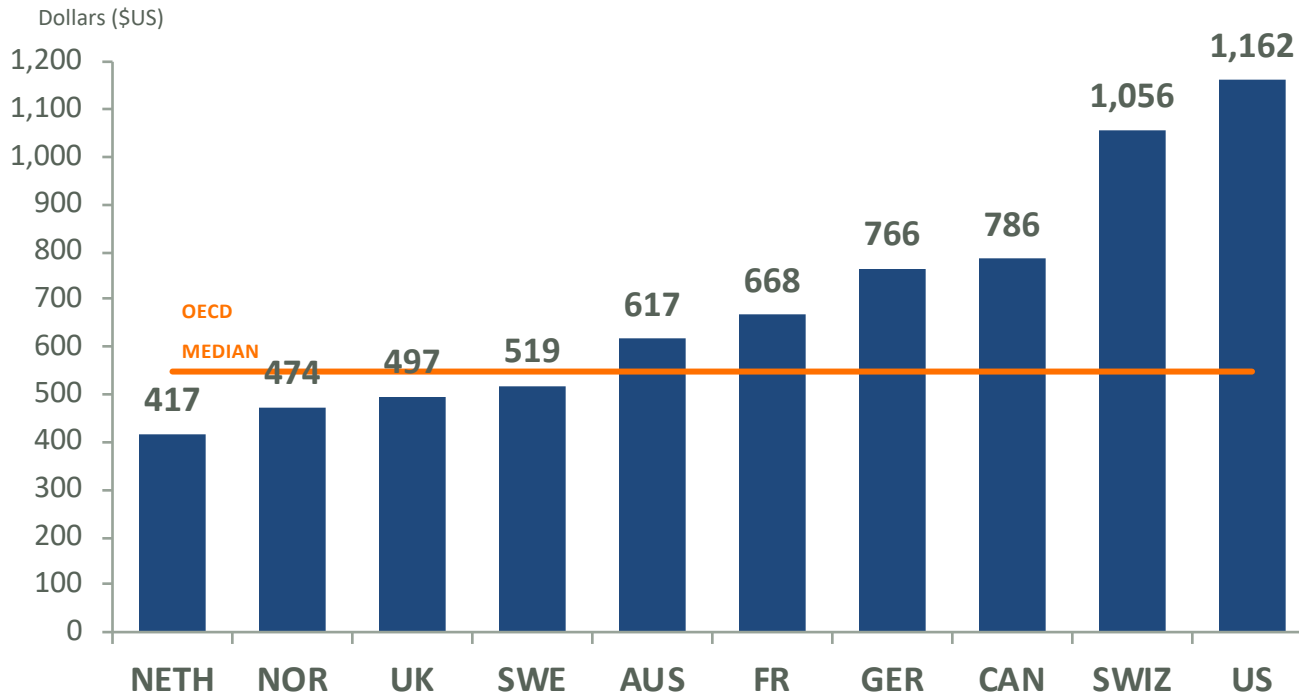
\* Or nearest year; data from 2014 for Australia and Canada, 2012 for the Netherlands, 2010 for the US. No recent data for New Zealand (since 2007). Data calculated as: (Current expenditures on hospitals in current prices, current PPPs / Number of discharges). 'OECD median' reflects the median of 35 OECD countries.

Source: OECD Health Data 2017.



# Pharmaceutical Spending per Capita, 2015\*

*Adjusted for Differences in Cost of Living*



\* Or nearest year; data from 2014 for Canada and Australia. No recent data available for New Zealand (since 2007).

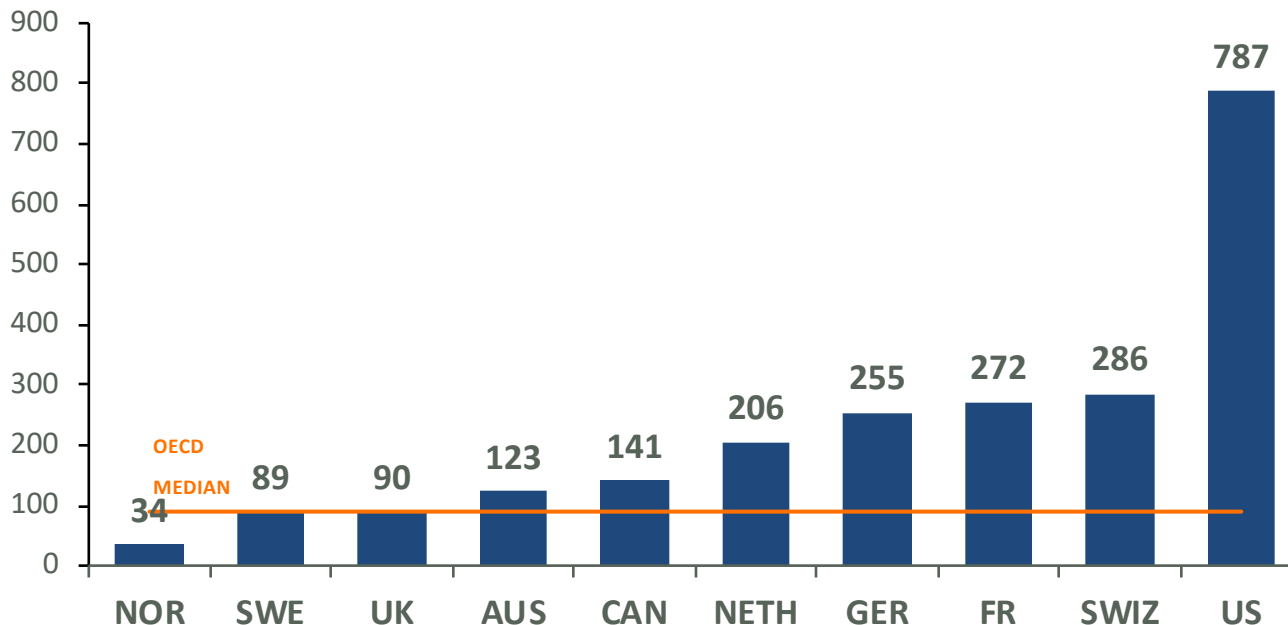
Current expenditures on pharmaceuticals (prescribed and over-the-counter medicines) and other medical non-durables, per capita, adjusted for current US\$ PPPs), representing retail spending of pharmaceuticals delivered outside provider settings. 'OECD median' reflects the median of 35 OECD countries.

Source: OECD Health Data 2017.

# Spending on Health Insurance Administration per Capita, 2015\*

*Adjusted for Differences in Cost of Living*

Dollars (\$US)



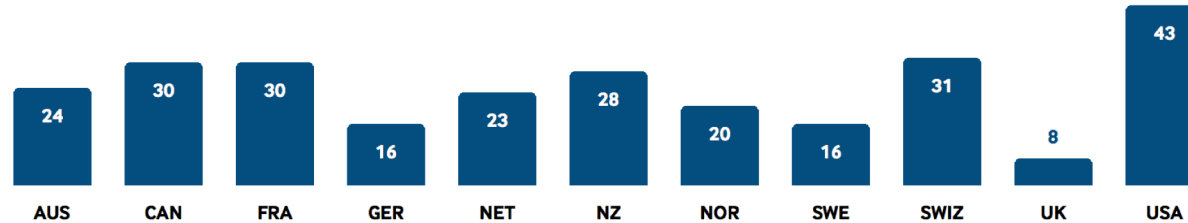
\* Or nearest year; data from 2014 for Australia and Canada. No recent data for New Zealand (since 2007). Data reflect current spending on governance and health system and financing administration, in current prices, current PPPs. 'OECD median' reflects the median of 34 OECD countries.

Source: OECD Health Data 2017.

## Key Health System Indicators Among Adults with Low Incomes

### COST-RELATED ACCESS BARRIERS IN THE PAST YEAR, AMONG LOW-INCOME ADULTS

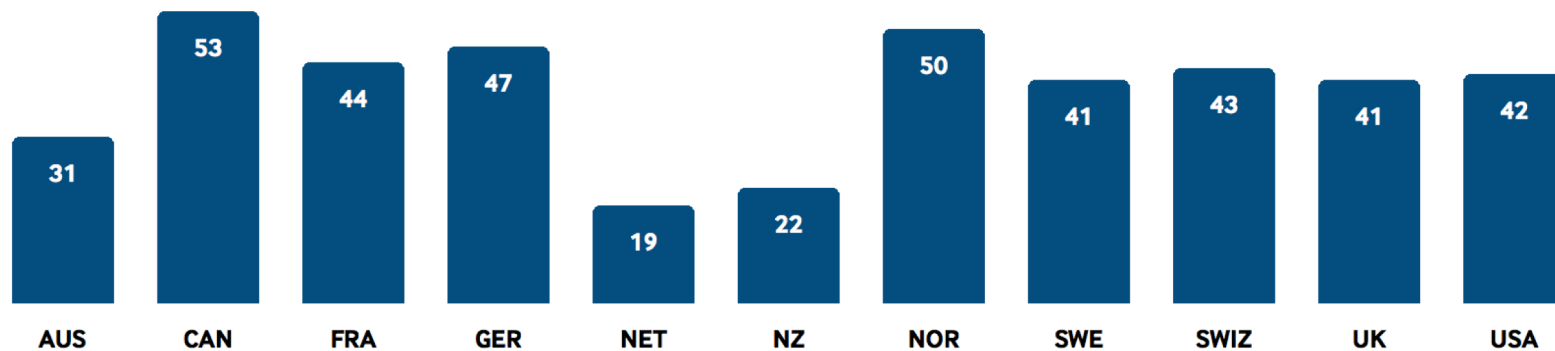
Percent of low-income adults



Respondents are categorized as earning less than half their country's median if they said that their household income was less than: Australia, AUD \$35,000; Canada, CAD \$35,000; France, €21,000; Germany, €23,000; Netherlands, €17,000; New Zealand, NZD \$33,000; Norway, NOK 340,000; Sweden, SEK 170,000; Switzerland, CHF 48,000; United Kingdom, £14,000; United States, USD \$25,000.

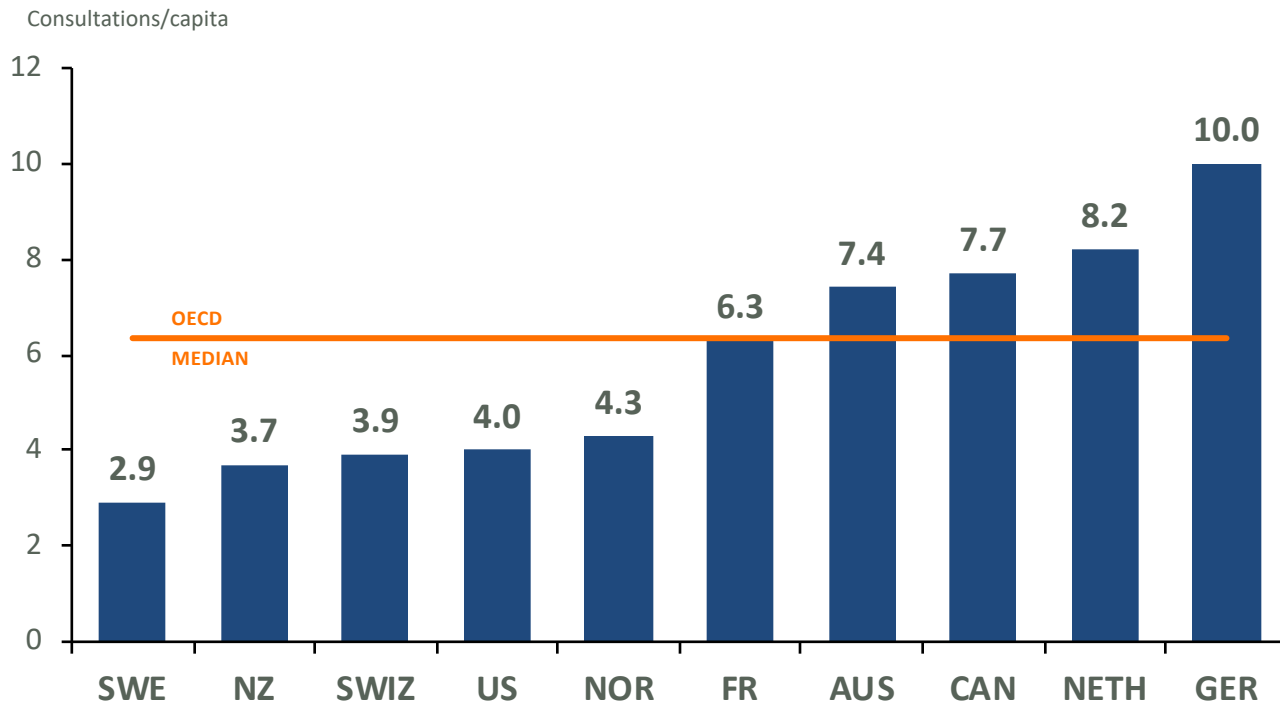
## DID NOT GET SAME- OR NEXT-DAY APPOINTMENT LAST TIME YOU NEEDED CARE

Percent



Base: Excludes adults who did not need to make an appointment to see a doctor or nurse

## Doctor Consultations per Capita, 2015\*

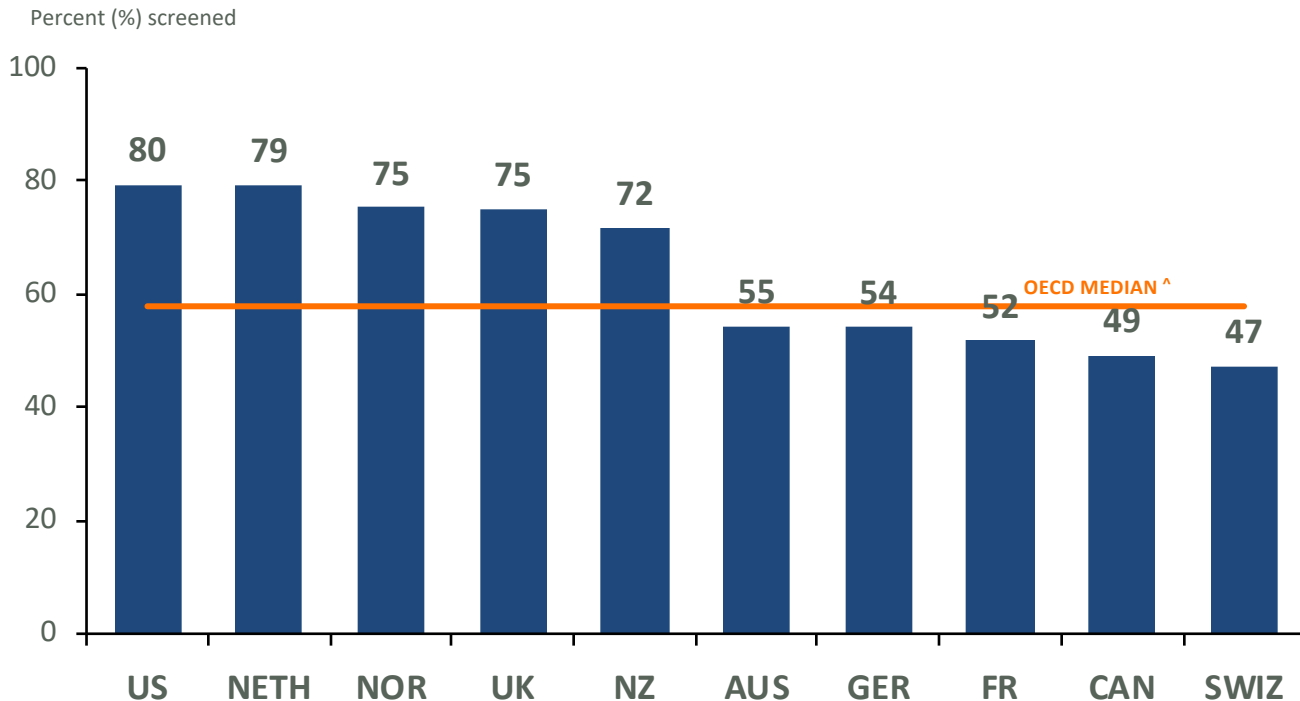


\* Or nearest year; 2014 for France; 2012 for Switzerland and New Zealand; 2011 for United States. No recent data for the UK (since 2009). Data reflect consultations delivered in all settings, including in the patient's home, but excluding telephone and email contacts. 'OECD median' reflects the median of 35 OECD countries.

Source: OECD Health Data 2017.

# Breast Cancer Screening Rates, 2015\*

Among women 50-69 years



\* Or nearest year; 2014, data for Netherlands, Germany; 2012 data for Switzerland; 2011 data for Canada.

^ OECD median based on data for 28 OECD countries (26 countries based on program data; 2 based on survey data).

Note: US, Switzerland, based on survey data; all other countries based on program data. No data for Sweden.

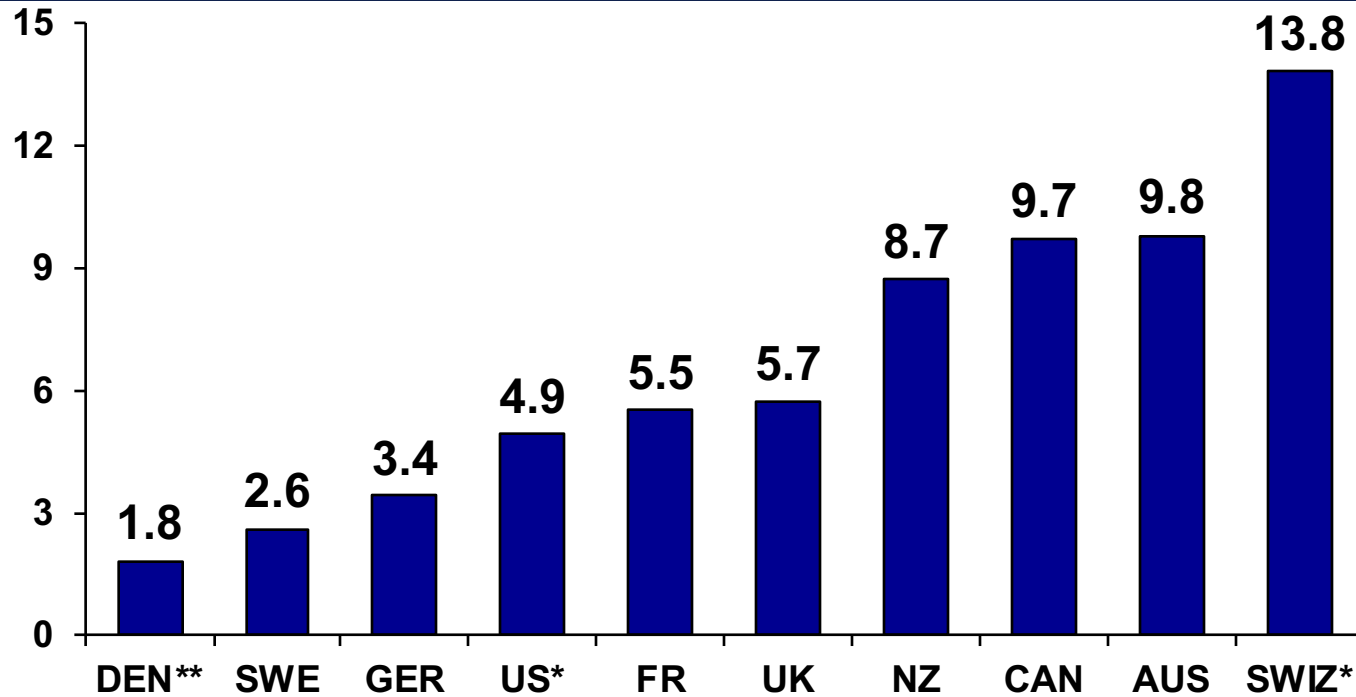
Source: OECD Health Data 2017.



The  
Commonwealth  
Fund

## Foreign Object Left in Body During Procedure per 100,000 Hospital Discharges, 2009

19



Note: Age-sex-SDX standardized rates.

\* 2008.

\*\* 2010.

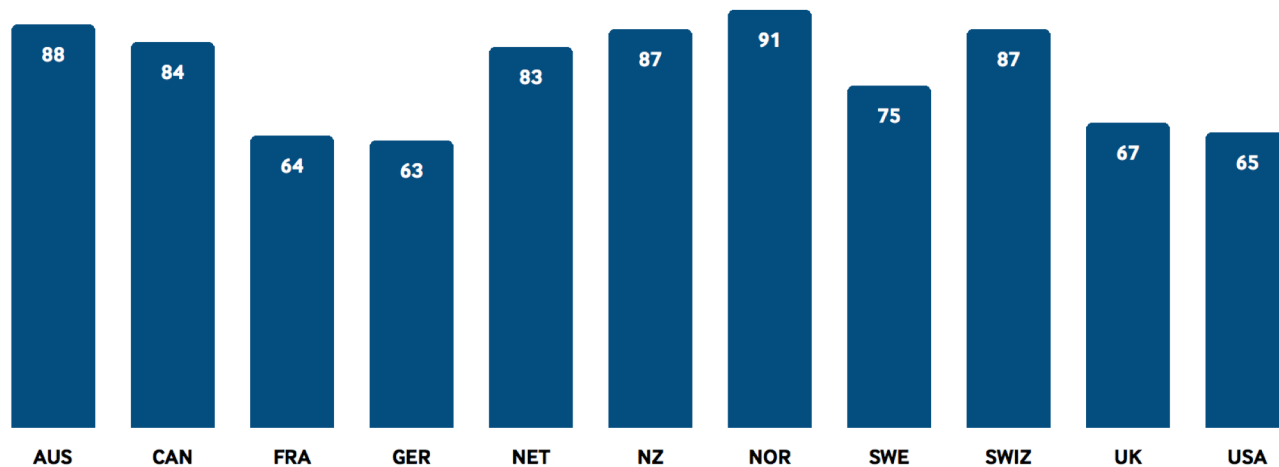
Source: OECD Health Data 2013.



## Primary Care Doctors' Views

### PHYSICIAN SATISFACTION WITH PRACTICING MEDICINE

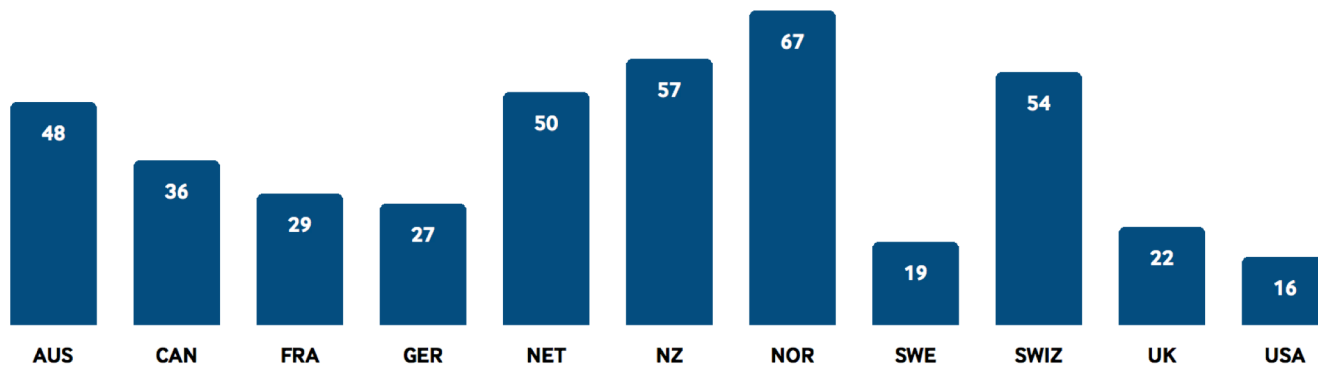
Percent of primary care physicians reporting they are 'very satisfied' or 'somewhat satisfied' practicing medicine





## OVERALL VIEW OF HEALTH CARE SYSTEM AMONG PRIMARY CARE PHYSICIANS

Percent of primary care physicians reporting their 'System Works Well,  
Only Minor Changes Needed'



## Public Views of Health System

Country	Works well, only minor changes	Fundamental changes	Completely rebuild
✕ Australia	48.0%	43.0%	9.0%
✕ Canada	42.0%	50.0%	8.0%
✕ France	40.0%	49.0%	11.0%
✕ Germany	42.0%	48.0%	10.0%
✕ Netherlands	51.0%	44.0%	5.0%
✕ New Zealand	47.0%	45.0%	8.0%
✕ Norway	46.0%	42.0%	12.0%
✕ Sweden	44.0%	46.0%	10.0%
✕ Switzerland	54.0%	40.0%	7.0%
✕ United Kingdom	63.0%	33.0%	4.0%
✕ United States	25.0%	48.0%	27.0%

Base: Adults Age 18 and Older

Units: Percent

Source: 2013 International Health Policy Survey in Eleven Countries

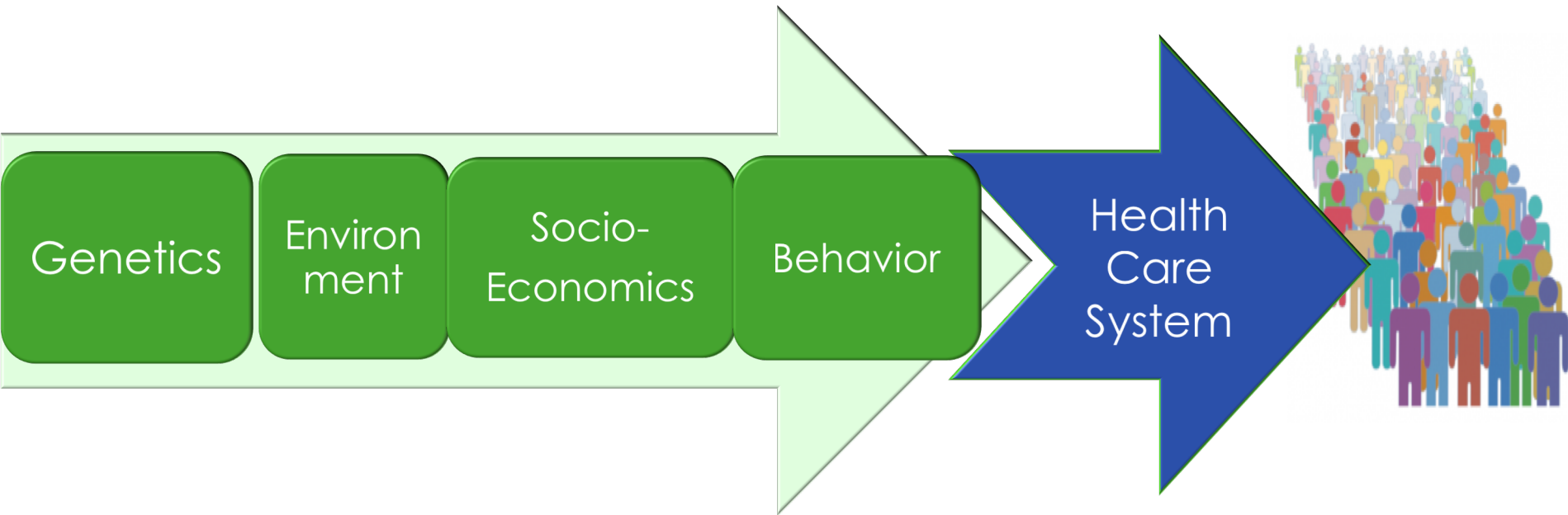
Data collection: Social Science Research Solutions



# Organizing A Health System



# Where do Healthcare Systems Fit?





# What is Universal Health Coverage?

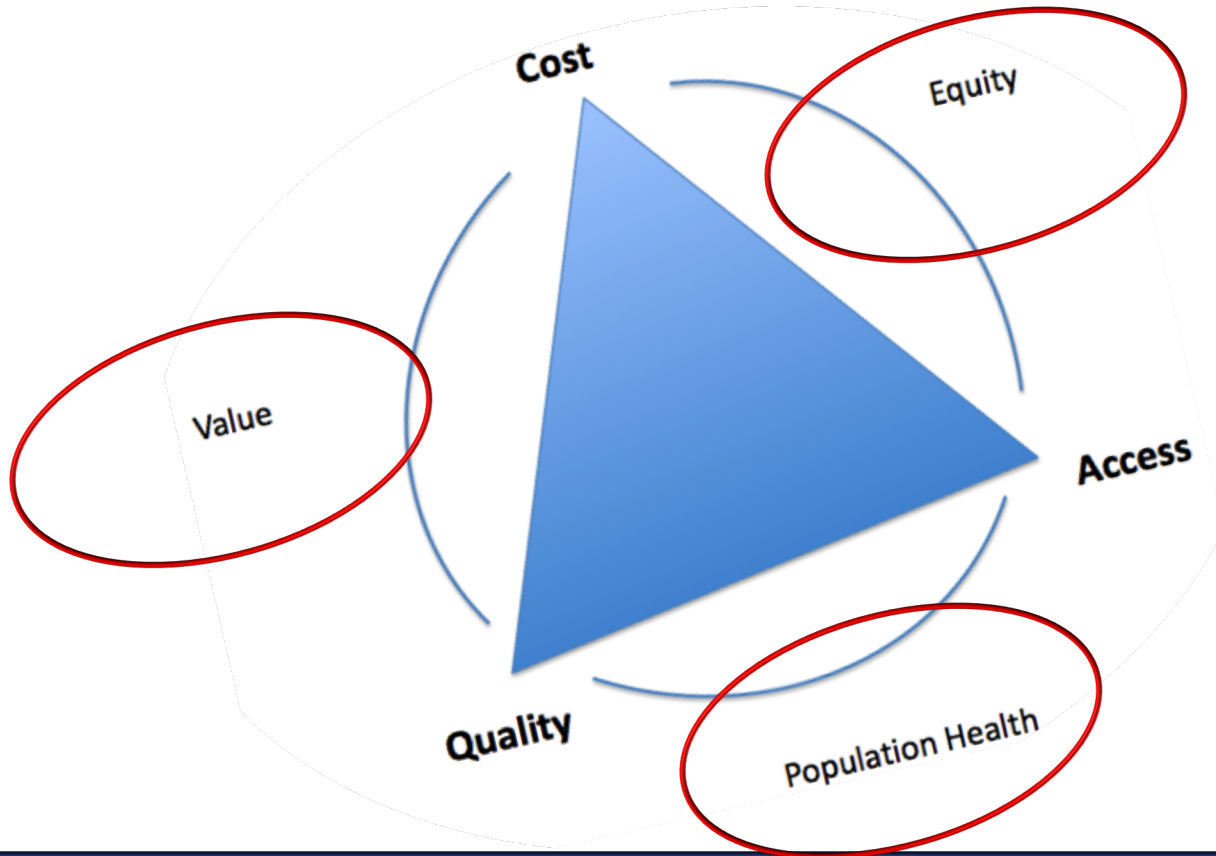
*Sustainable Development Goal: 3.8.*

By the Year 2030...

***“Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.”***



# The Iron Triangle of the Healthcare System





# Values Matter!





# Hard truths about health care systems....

**Values**

**History**

**Politics**

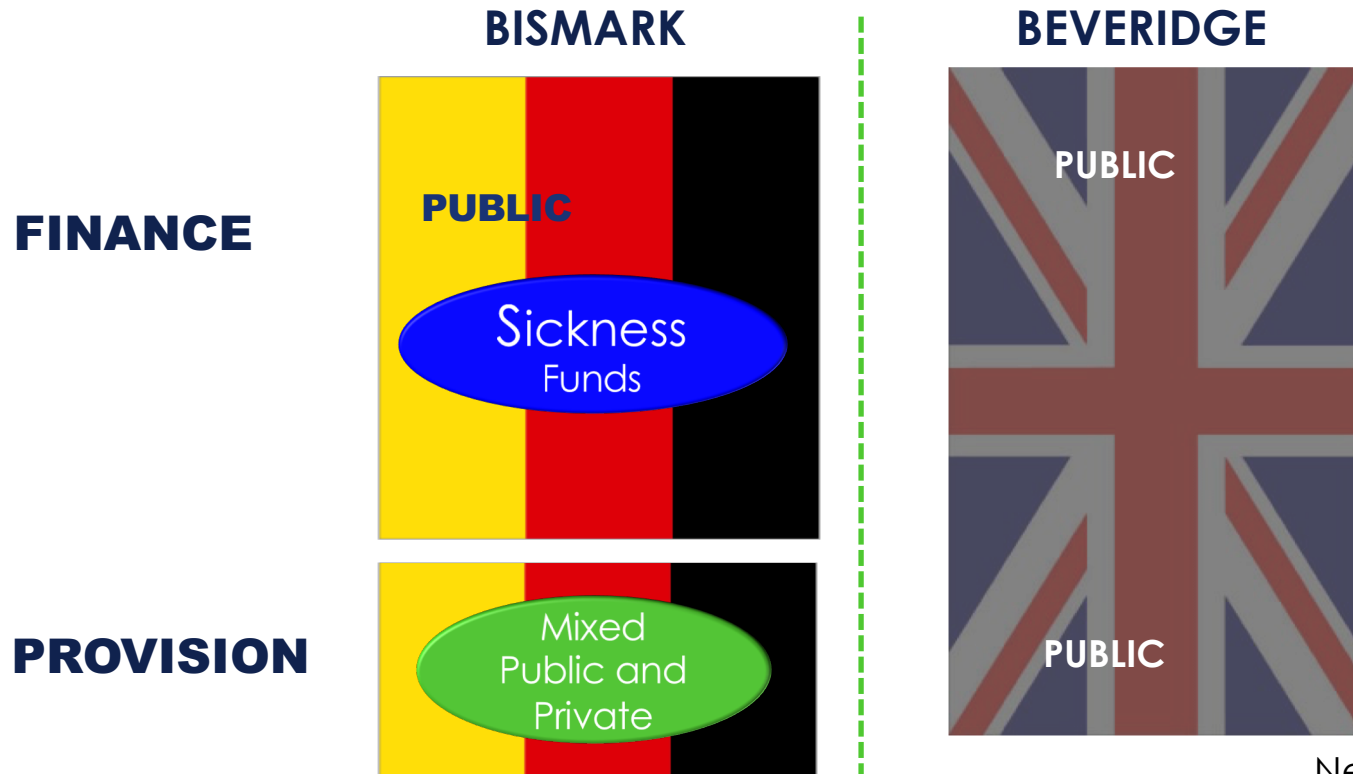


**And then there's the evidence**





# Organizing financing & delivery of UHC: Historical models





# Organizing financing & delivery of UHC: Historical models

**FINANCE**

**BISMARCK**

**PUBLIC**

Sickness  
Funds

**PROVISION**

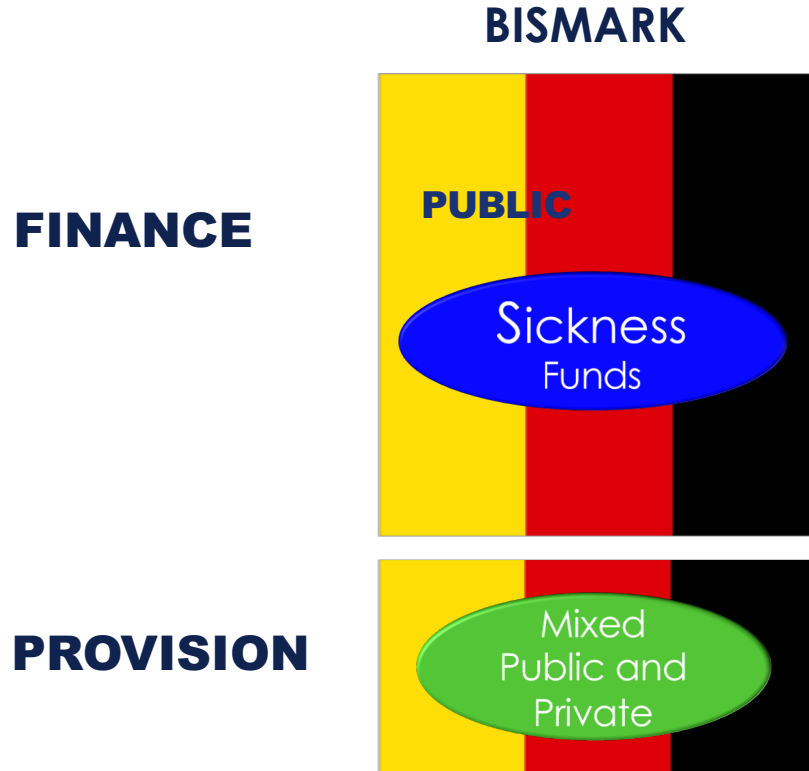
Mixed  
Public and  
Private

**BEVERIDGE**





# Organizing financing & delivery of UHC: Historical models



## BEVERIDGE





# Where in the world is socialized medicine?

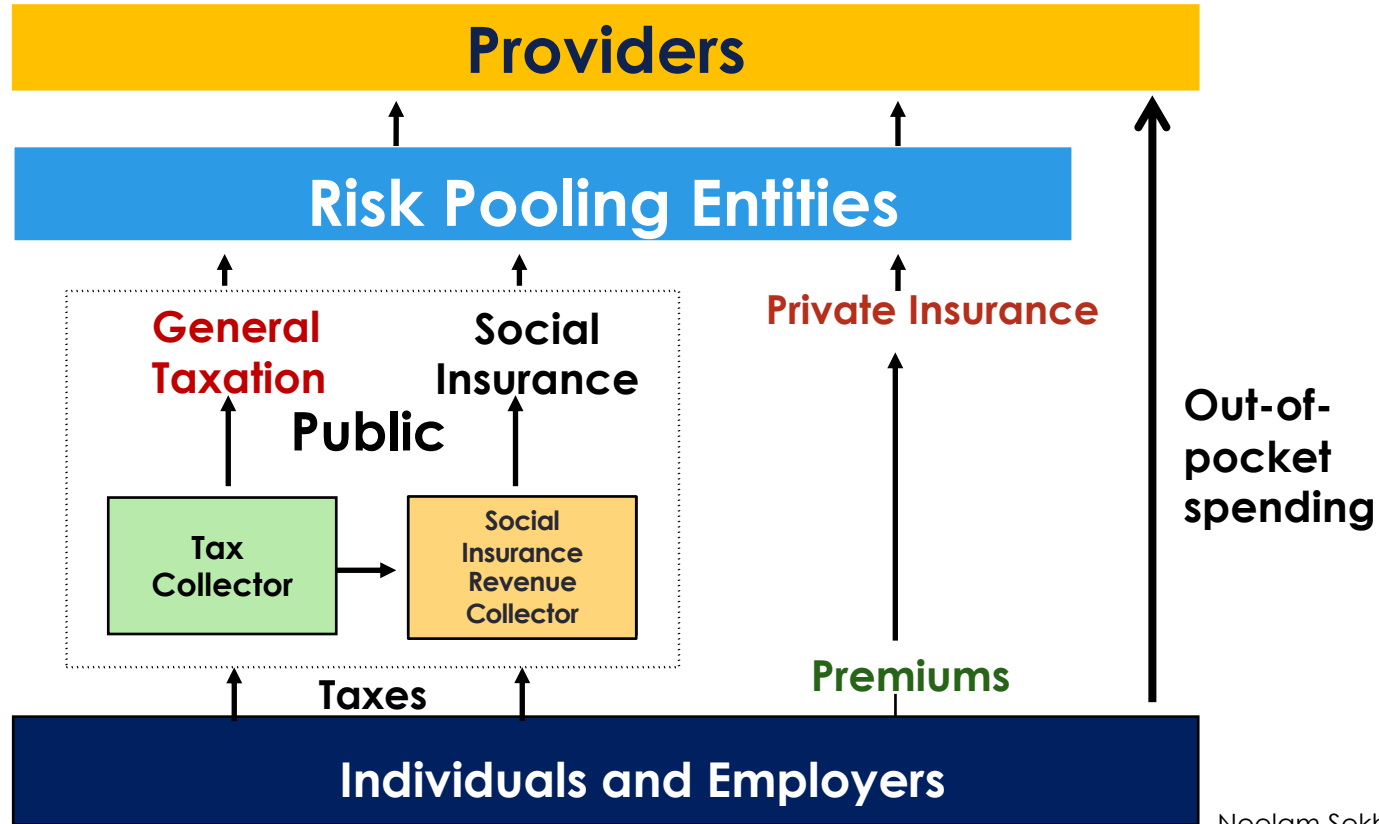
Public **Financing** of Healthcare



Public **Provision** of Healthcare

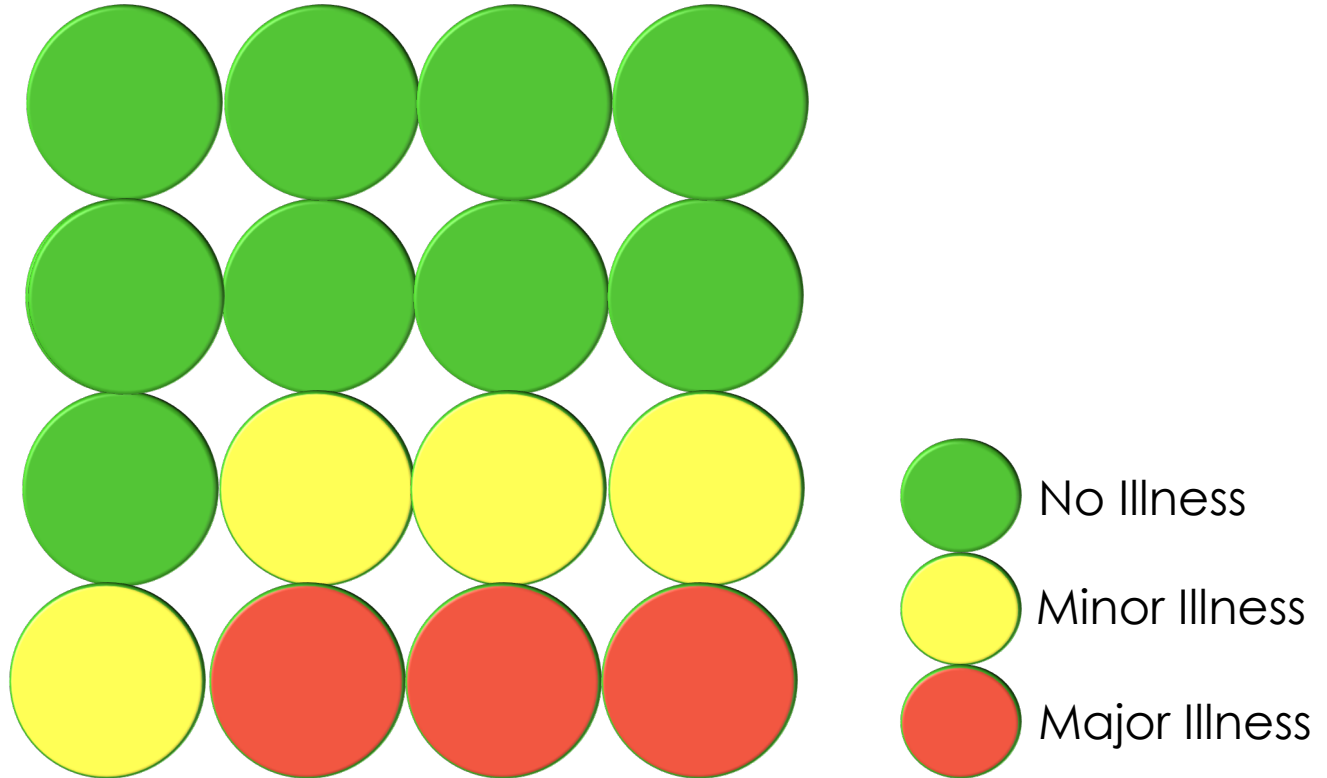


# Financing a Healthcare System: The BIG FOUR



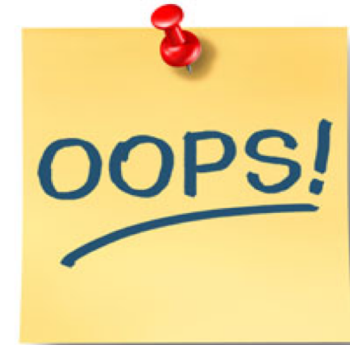


# What is Risk Pooling?



# Out-of-pocket spending (OOPS)

- **Most common source of financing in low income countries**
- **“Risk pool” is the (extended) family**
  - Share genes
  - Share environment
  - Share pathogens
  - Share behaviors
  - Share economic status



# Health System Goals



Health and Health Equity



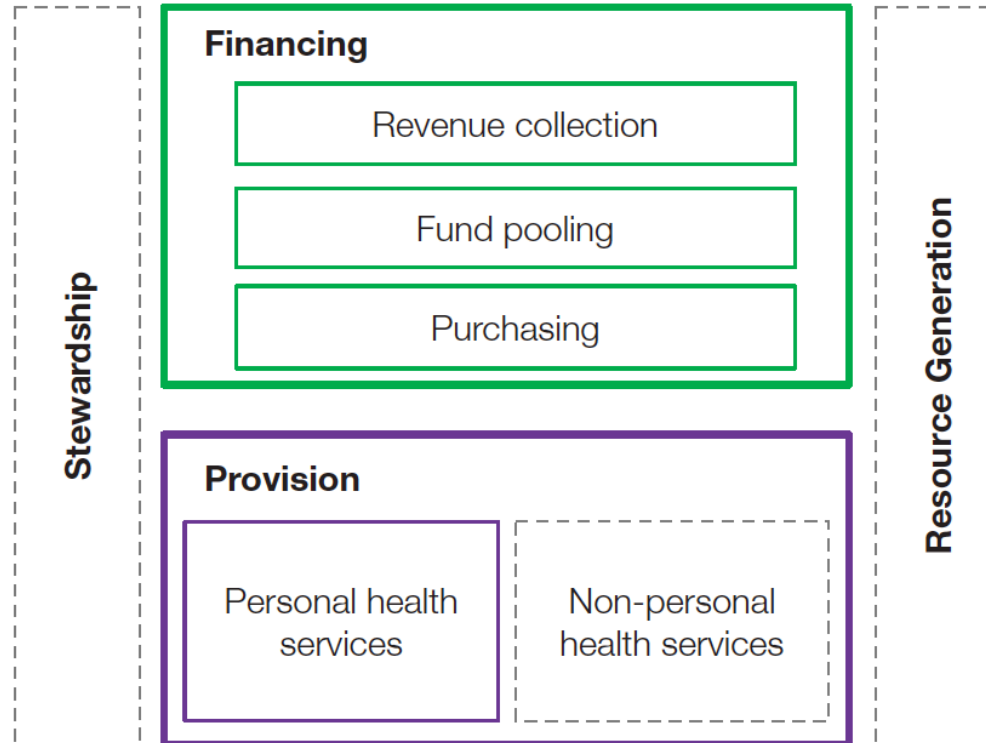
Responsiveness



Financial Protection



# Health Systems Functions





# UCSF Healthcare System Mapping Tool

		<i>Healthcare System Entities</i>	
		Public	Private
<i>Healthcare System Functions</i>	Revenue Collection	General Taxes, Payroll Contributions, Donor Funds....	OOPS/Private Health Insurance
	Risk Pooling	Combined Risk Pools or Separate Pools	<i>Households/Insurers</i>
	Purchasing	Coverage Program/Scheme	<i>Households/Insurers</i>
	Population	Civil Servants, Formal Sector Workers, General Population	Special Groups such as elderly, poor
	Provision	Public Providers	Private Providers
		Informal Sector, General Population/Those with Purchasing Power	

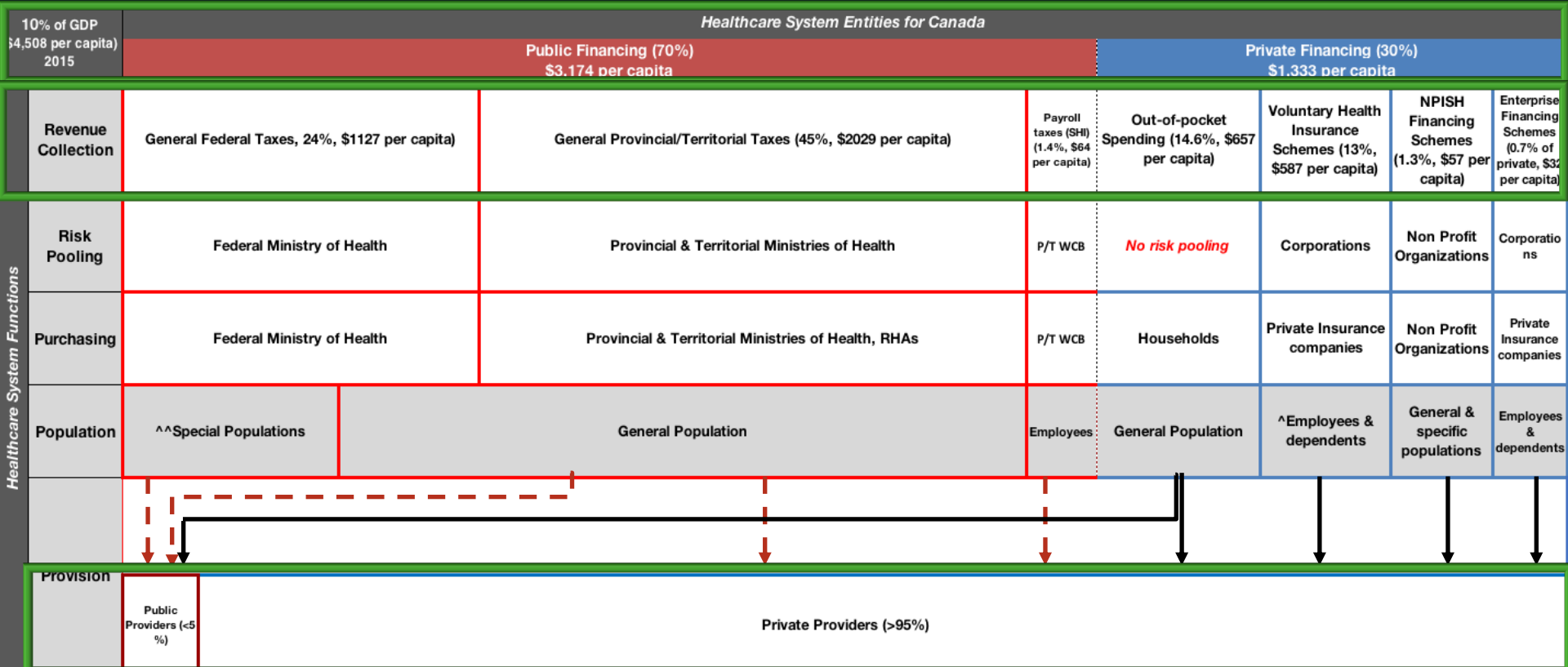
Policy Arena	Key Policy Questions	Potential Domains of Health System Impact
<b>PUBLIC</b>		
<b>Sources and Amount of Funds</b>	Which institutional structures/sources will form the funding basis for public monies (e.g., general taxation, social health insurance, and other hypothecated taxes)? What is the relative mix of each source?	Financial Protection
	What amount of public monies will be devoted to the health sector from these various sources?	Financial Protection
<b>Extent and Levels of Risk Pooling</b>	To what extent will monies from various public or publically mandated revenue sources be combined into a single pool? Will risk pools be segmented by funding source?	Equity, Sustainability
<b>Use of Public Funds</b>	Will public monies only pay for public providers or will public monies be used to buy care delivered by a mix of public and private providers?	Access, Consumer Choice, Quality
<b>Purchasing/ Provision Integration</b>	Will the public sector focus on the delivery of care (the inputs of the health system) or will there be a purchaser-provider split in which the public sector purchases a package of services from providers based on outputs or outcomes?	Efficiency, Quality, Responsiveness
<b>Coverage</b>	To what extent will coverage programs focus on a universal package of services for the entire population; or will separate coverage schemes exist for different population segments?	Equity, Financial Protection, Access, Quality, Responsiveness
	To what extent will patients experience cost sharing? How will vulnerable populations be protected from catastrophic out-of-pocket spending?	Equity, Financial Protection, Cost
<b>PRIVATE</b>		
<b>Private Risk Pooling</b>	To what extent will risk pooling through private health insurance be encouraged or allowed?	Financial Protection, Equity, Efficiency, Access, Cost

# WHO Global Health Expenditure Database

<http://apps.who.int/nha/database>

→ Data Explorer

# Mapping a Healthcare System: Canada



Source: WHO Global Health Expenditure Database, Retrieved on March 23, 2018  
 Public/Private breakdown source: international Healthcare systems profiles from the Commonwealth fund  
 Sources of private financing: Marchlidon, 2013

Courtesy of Sabrina Alam 2018



# The OLD US Healthcare System

18% of GDP (\$ 10,348 per capita) 2016		Healthcare System Entities								
		Public Financing (49%) \$ 4706 per capita				Private Financing (51%) \$ 4830 per capita				
Healthcare System Functions	Revenue Collection	General Taxes (27%)			Social Health Insurance (23%)		Out of Pocket (11%)	Voluntary Health Insurance (35%)		Enterprise Financing (4%)
	Risk Pooling	Indian Health Service	Veterans Administration	State	Federal		None	Private Insurers		Corp
	Purchasing			State Medicaid & other state and federal programs	Medicare Administration		Households	Empolyers/Individuals		Corp
	Population	Native Americans	Veterans	Low Income/Disabled	Elderly/Disabled		General Population	Primary Employed; Individuals		Employee s/Depend ents
	Provision	Non Profit Providers	Non Profit Providers	Public Providers (21%)		Private Providers (58% non profit; 21% for profit)				

Global Health Expenditure database accessed 10/2018

Neelam Sekhri Feachem



# The New(-ish) US Healthcare System

of GDP \$8988/capita		Public Financing (47%) \$4279 per capita			Private Financing (53%) \$4709 per capita		Part of Public Financing	
		Health System Entities						
Revenue Collection	Health System Functions	Social Security & General Taxes	General Taxes (State and Some Federal)	Federal Subsidy	Employer/Employee Contributions	Out of Pocket Payments (\$1032/capita)	General Taxes	
Risk Pooling		National	State	Private Insurers	Private Insurers	No Risk Pooling	Veteran Affairs	Indian Health Services
Purchasing		Medicare (DHHS)	State Medicaid & Other State and Federal Programs	Federal and State Exchanges	Private Insurance	Households	Veteran Affairs	Indian Health Services
Population		Elderly (+65) & Disabled	Poor/Low Income	Eligible Individuals	Employed/Individuals	All Americans	Veterans	Native Americans
Provision		Public Providers (21% hospitals)		Private providers (55% non-profit /21% for-profit hospitals)			Own Providers	Own Providers

**Note :** All figures from WHO Global Health Expenditure database.

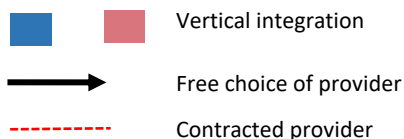
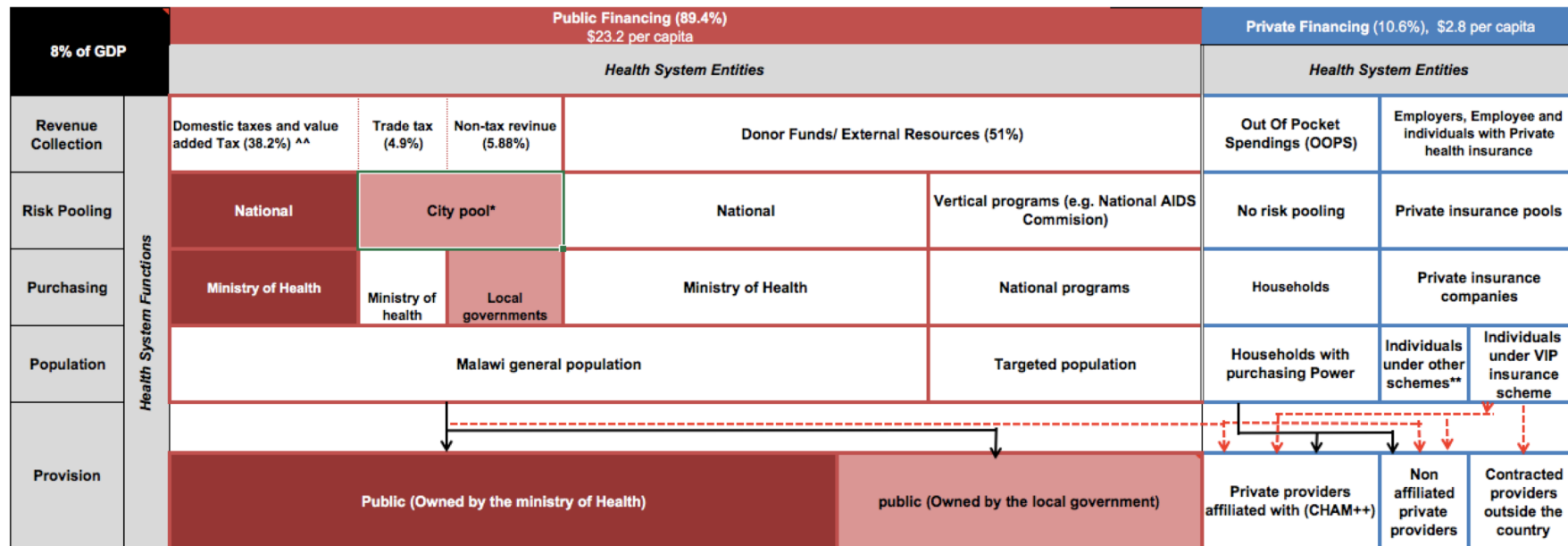
---> Contracted providers     
 --> Free choice of providers     
  Vertical integration

# Mapping a Healthcare System: U.K.

10% of GDP (\$ 4356 per capita) 2015		Healthcare System Entities			
		Public Financing (80%) \$ 3470 per capita		Private Financing (20%) \$ 886 per capita	
Healthcare System Functions	Revenue Collection	General Taxation		Out of Pocket (15%) \$644	VHI (3%); Enterprise (1%); NPISH (2%)
	Risk Pooling	Department of Health/ National Health Service	National Health Service	Individuals/Households	Insurer
	Purchasing	Clinical Commissioning Groups	NHS	Individuals/Households	Insurer
	Population	General Population		General Population	Some formal sector, special groups
	Provision	↓	↓	↓	↓
		GPs: Mainly private	Hospitals: Mainly Public	Private Hospitals and Providers	

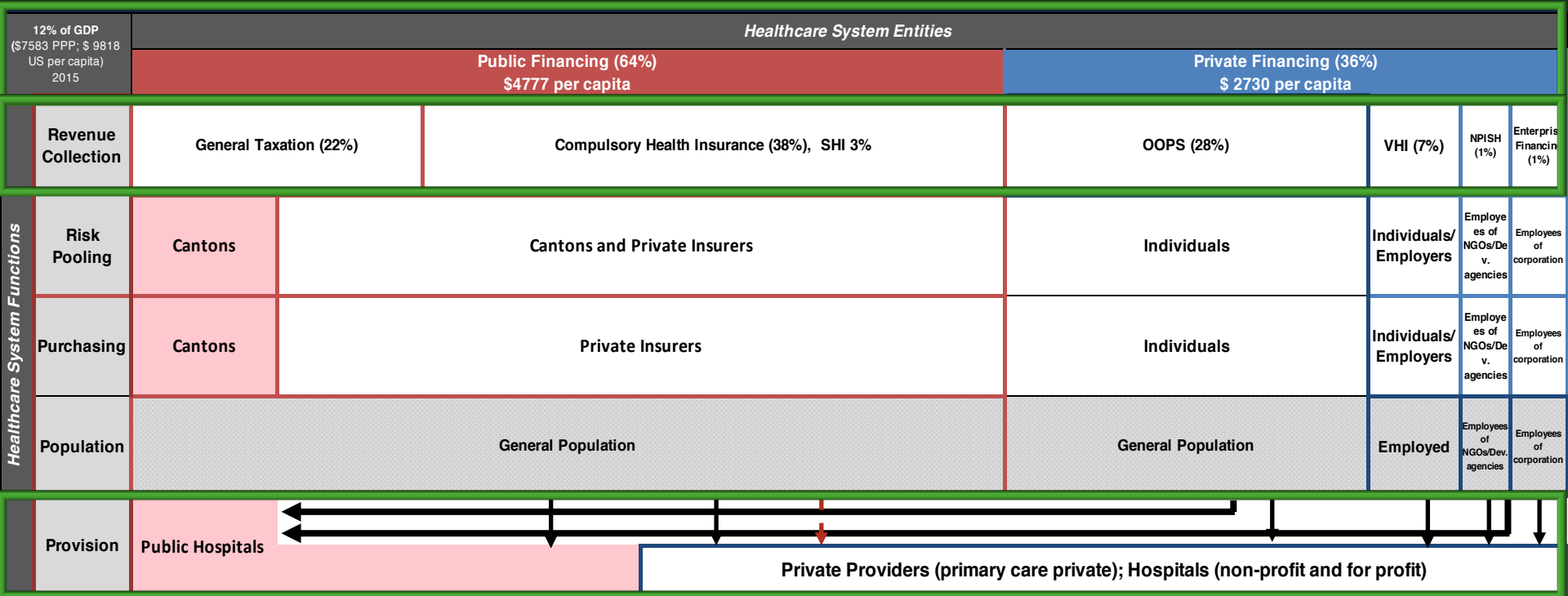


# Health system map of Malawi:



- There are 4 identified local governments
- ++ Christian Health Association of Malawi
- \*\* Under Medical Aid society of Malawi(MASM)

# Mapping a Healthcare System: Switzerland





# Mapping a Healthcare System: Singapore

Healthcare System Entities									
4% of GDP (\$2280 per capita) Year		Public Financing (52%) \$1,183					Private Financing (48%) \$1,097		
Healthcare System Functions	Revenue Collection	Payroll Taxes (\$119) and Compulsory Medical Savings Accounts (\$118) 10%	General Taxation (\$946 per capita) 42%				Enterprise Financing Schemes (\$329 per capita) 14%	Voluntary Health Insurance ( \$49/capita) 2%	Out of Pocket Spending ( \$719/ capita) 32%
	Risk Pooling	Govt/Households	GOVERNMENT (VARIOUS MINISTRIES)			MINISTRY OF HEALTH (MOH)	Corporations	Private Insurers	No Risk Pooling
	Purchasing	MEDISAVE	MEDISHIELD	MEDIFUND	ELDERSHIELD	MOH	Corporations	Private Insurers	Households
	Population	All Singaporean Citizens and Permanent Residents		Needy and Disabled (if Expenses > Medisave and Medishield)	Elderly/Disabled (Long Term Care)	All Singaporeans	Employees, Dependents, Retirees of Corporations	Those with Purchasing Power	General Population
	Provision								
Public and Private Providers									

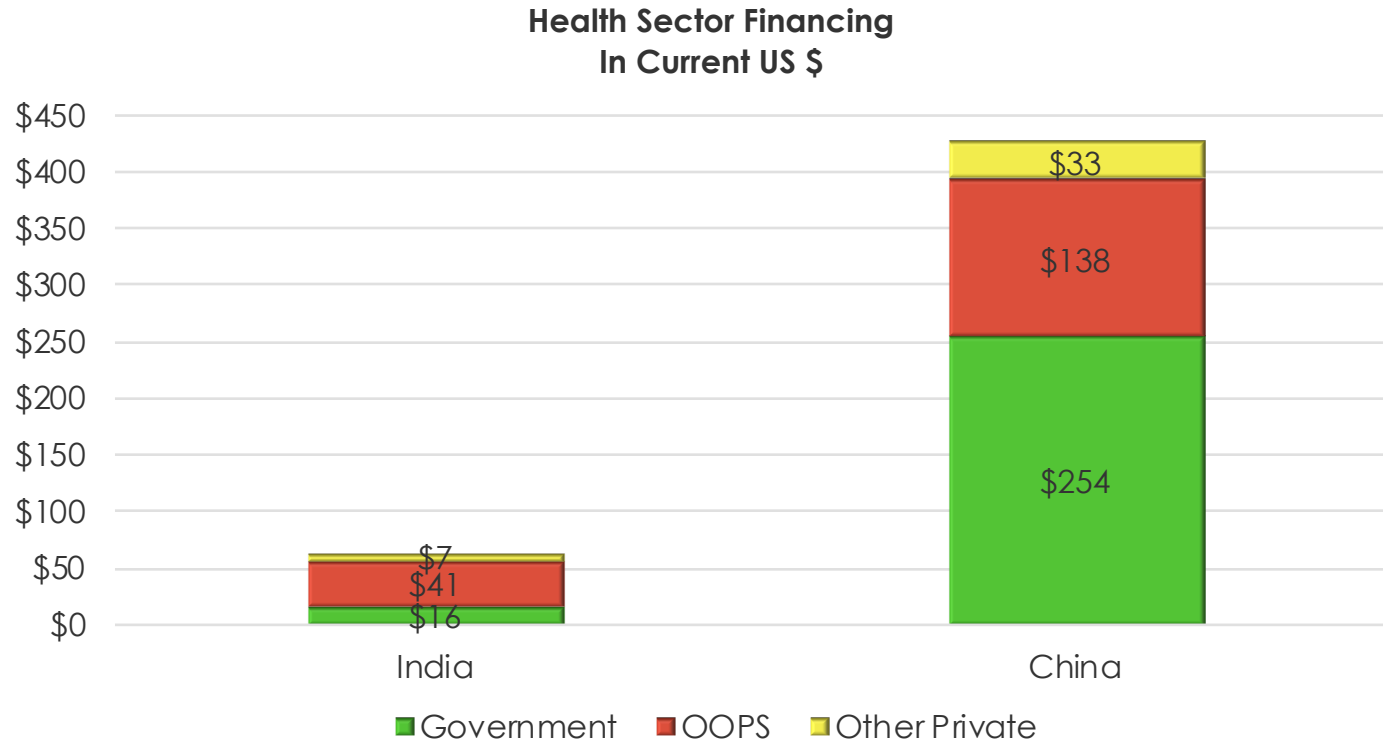
of providers

Source: All numbers from Global Health Expenditure Database. Accessed April 27, 2018

# The Billion Persons Club



# Health Financing: India and China



# Mapping a Healthcare System: China

Healthcare System Entities**													
5% of GDP (\$762 PPP \$426 per capita) 2015		Public Financing (60%) \$457 per capita in 2015						Private Financing (40%) \$307 per capita in 2015					
Functions	Revenue Collection	General taxes		Payroll taxes and general taxes			Unspec Scheme	Out of Pocket: \$247 per capita (32%)		VHI: (2%)	Enterprise schemes: (1%)	NPISH Financing	Unspecified (4%)
	Risk Pooling	Health and Family Planning Commission		Social Health Insurance Scheme			Unspecified Financing Scheme	No risk pooling		Private Insurance Pools	Enterprise employees and family members	Special population groups	Unspecified Financing Scheme
Healthcare System	Purchasing	Public Health Benefit Package	Low income subsidy	Urban Employer Based Insurance*	Urban Resident Basic	Rural Cooperative Medical Scheme	Unspecified Financing Scheme	Households		Private Insurers	Enterprise	NPISH	Unspecified Financing Scheme
	Population	General Population	Low income	Urban Employed	Urban Unemployed	Rural residents		General Population		Households with Purchasing Power	Enterprise employees and family members	Special population groups	
Provision		Public providers (55%) - National Health and Family Planning Commission						Private Providers (45%) - Non-profit, for-profit and non-governmental organizations					

Courtesy of Colleen Keough 2018

# Mapping a Healthcare System: India

