

# Foundations of Global Health

## Health Care Systems



Primary Health Care  
Health Systems  
Health Workforce

*Of all forms of inequality,  
injustice in health care is the  
most shocking and inhumane.*

*~Martin Luther King, Jr.*



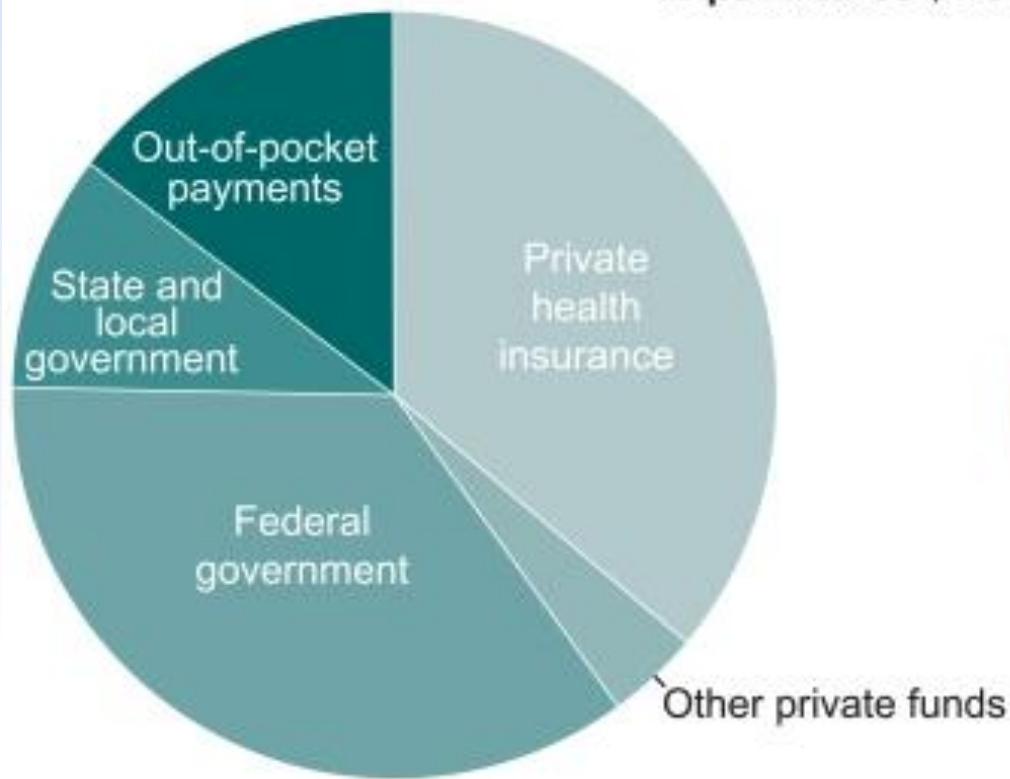
# Learning Objectives

- Describe primary health care, its goals & components
- Describe the main functions of a health system
- Review how health systems are organized
- Discuss selected examples of health systems
- Describe how health systems in low-and middle-income countries might better improve health outcomes
- Describe global workforce shortage

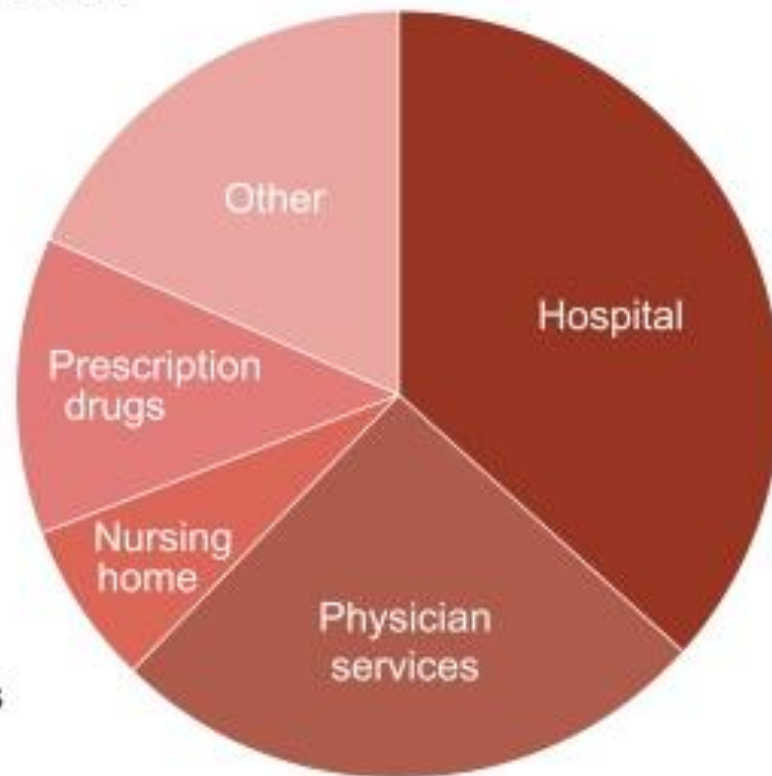


# U.S. Health Care: Very Pricey!

Expenditures \$1.8 trillion



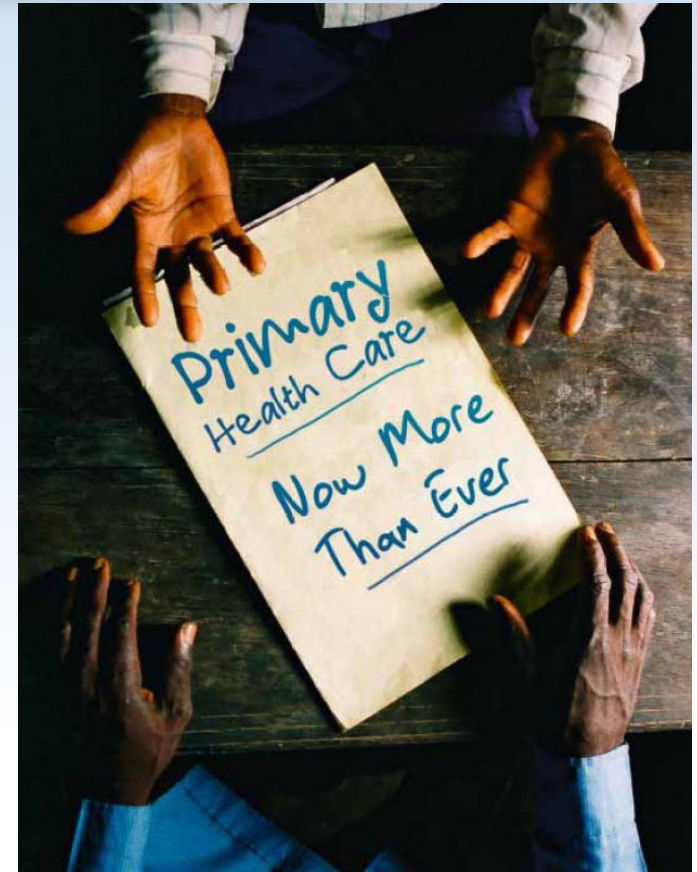
Source of funds



Type of expenditures

# Health Care

- Health is a **social good** needed in adequate amounts for a functioning & productive society
- The way health is delivered around the world is very different
- Most countries use a mix of public & private health sectors

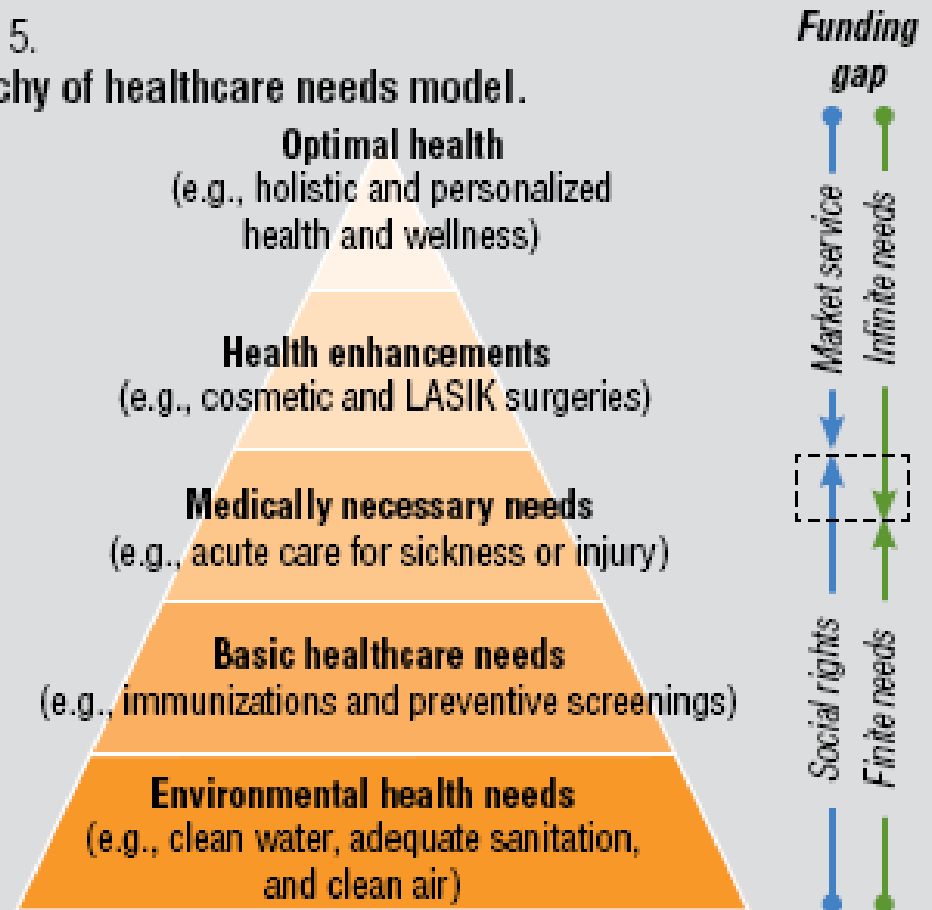


Source: WHO. *The World Health Report 2008*.

# Healthcare Needs

- Modified Maslow's pyramid
- Lower levels must be met prior to achievement of **optimal health**
- Health as a social good is shown here— where the bottom 3 levels are considered social rights

FIGURE 5.  
Hierarchy of healthcare needs model.



Source: IBM Institute for Business Value analysis.

# Primary Health Care

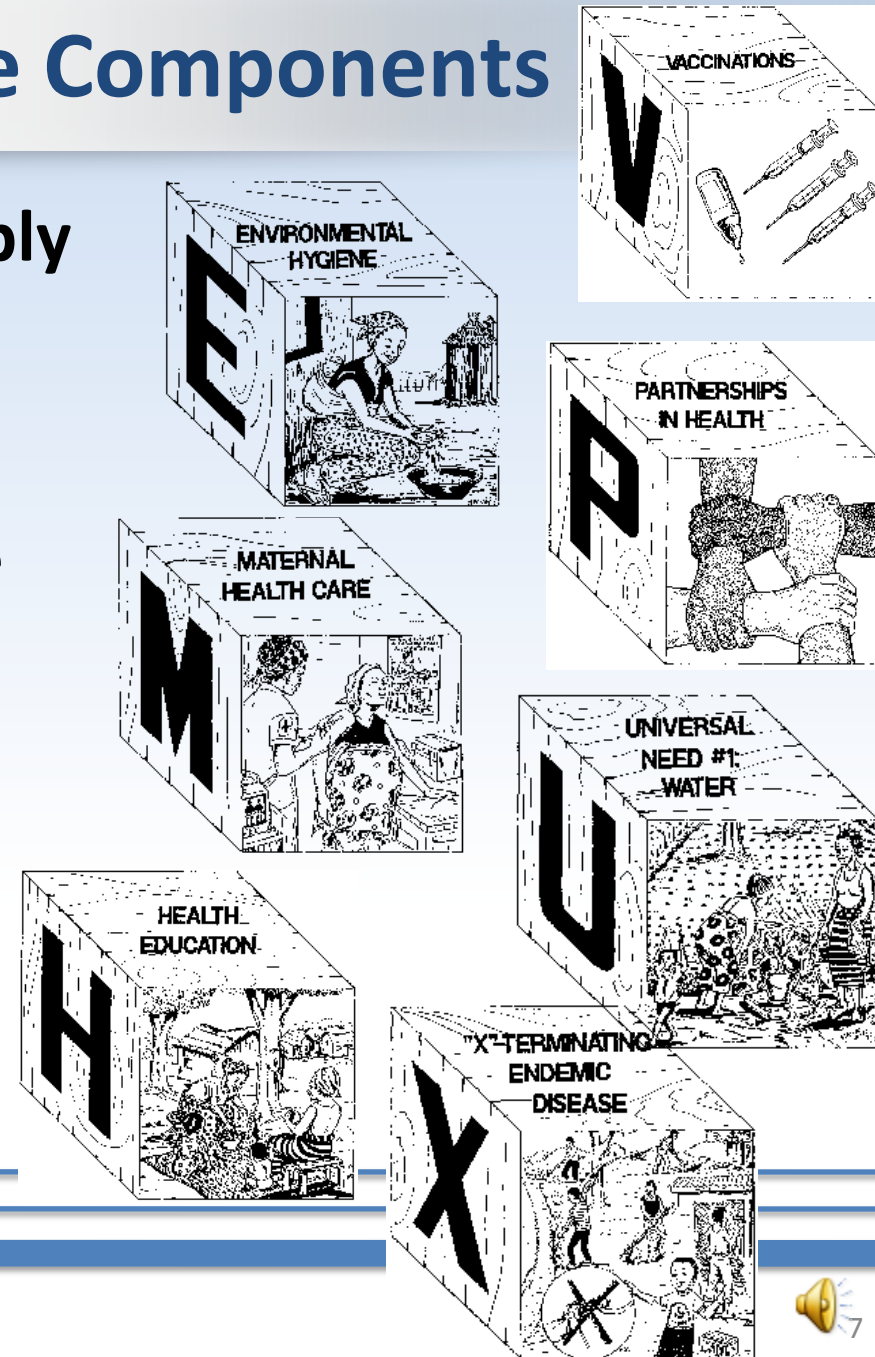
- Goal for world community & organizational structure for providing clinical medical services
- Associated with WHO & Alma-Ata conference in 1978
  - Essential health care made universally accessible
  - Includes public health measures to improve sanitation & potable water sources
  - Focus on **prevention** not the cure



Dr Halfdan Mahler, WHO director-general at the time of the 1978 conference on primary health care, sits at the podium of the Lenin Convention Center with US Senator Edward Kennedy at his side.

# Primary Health Care Core Components

- Promote adequate **food supply & nutrition**
- Adequate supply of potable water & sanitation
- **Maternal & child health care** (family planning)
- **Immunization** against VPD
- **Prevention & control** of endemic diseases
- Timely diagnosis, treatment of illness, also vector control



**TABLE 5-6** Model Primary Care Package of Essential Health Services Interventions

<p><b>Maternity-related interventions</b></p> <p>Prenatal care</p> <p>Treatment of complications during pregnancy</p> <p>Skilled birth attendants</p> <p>Emergency obstetric care</p> <p>Postpartum care</p> <p>Family planning</p> <p>Tetanus toxoid</p>	<p><b>Childhood disease-related interventions (treatment)</b></p> <p>Acute respiratory infections</p> <p>Diarrhea</p> <p>Causes of fever</p> <p>Malnutrition</p> <p>Anemia</p> <p>Feeding and breastfeeding counseling</p> <p><b>Malaria prevention</b></p> <p>Insecticide-treated nets</p> <p>Residual indoor spraying</p> <p><b>Malaria treatment</b></p> <p><b>Tuberculosis treatment</b></p> <p>Directly Observed Therapy, Short-Course (DOTS) for smear-positive patients</p> <p>DOTS for smear-negative patients</p>	<p><b>HIV/AIDS prevention</b></p> <p>Youth-focused interventions</p> <p>Interventions with sex workers and clients</p> <p>Condom social marketing and distribution</p> <p>Workplace interventions</p> <p>Strengthening of blood transfusion systems</p> <p>Voluntary counseling and testing</p> <p>Prevention of mother-to-child transmission</p> <p>Mass media campaigns</p> <p>Treatment for sexually transmitted infections</p> <p><b>HIV/AIDS care</b></p> <p>Palliative care</p> <p>Clinical management of opportunistic illnesses</p> <p>Prevention of opportunistic illnesses</p> <p>Home-based care</p> <p>HIV/AIDS highly active antiretroviral therapy (HAART) provision</p> <p><b>Tobacco control program (taxes, legal action, information, nicotine replacement)</b></p> <p><b>Alcohol control program</b></p>
<p><b>Childhood disease-related interventions (prevention)</b></p> <p>Bacillus Calmette-Guerin</p> <p>Polio vaccination</p> <p>Diphtheria-pertussis-tetanus vaccination</p> <p>Measles vaccination</p> <p>Hepatitis B vaccination</p> <p>Haemophilus influenza type B vaccination</p> <p>Vitamin A supplementation</p> <p>Iodine supplementation</p> <p>TB vaccination</p> <p>Anthelmintic treatment</p> <p>School health program (incorporating micronutrient supplementation, school meals, antihelminthic treatment, and health education)</p>		

Source: Data used with permission from Tollman S, Doherty J, Mulligan J-A. General primary care. In: Jamison DT, Breman JG, Measham AR, et al, eds. *Disease Control Priorities in Developing Countries*. 2nd ed. Washington, DC and New York: The World Bank and Oxford University Press; 2006: 1193-1209.



# It's All in the Delivery...

## Box 1 Five common shortcomings of health-care delivery

*Inverse care.* People with the most means – whose needs for health care are often less – consume the most care, whereas those with the least means and greatest health problems consume the least<sup>10</sup>. Public spending on health services most often benefits the rich more than the poor<sup>11</sup> in high- and low-income countries alike<sup>12,13</sup>.

*Impoverishing care.* Wherever people lack social protection and payment for care is largely out-of-pocket at the point of service, they can be confronted with catastrophic expenses. Over 100 million people annually fall into poverty because they have to pay for health care<sup>14</sup>.

*Fragmented and fragmenting care.* The excessive specialization of health-care providers and the narrow focus of many disease control programmes discourage a holistic approach to the individuals and the families they deal with and do not appreciate the need for continuity in care<sup>15</sup>. Health services for poor and marginalized groups are often highly fragmented and severely under-resourced<sup>16</sup>, while development aid often adds to the fragmentation<sup>17</sup>.

- Inverse care
- Impoverishing care
- Fragmented care
- Unsafe care
- Misdirected care

*Unsafe care.* Poor system design that is unable to ensure safety and hygiene standards leads to high rates of hospital-acquired infections, along with medication errors and other avoidable adverse effects that are an underestimated cause of death and ill-health<sup>18</sup>.

*Misdirected care.* Resource allocation clusters around curative services at great cost, neglecting the potential of primary prevention and health promotion to prevent up to 70% of the disease burden<sup>19,20</sup>. At the same time, the health sector lacks the expertise to mitigate the adverse effects on health from other sectors and make the most of what these other sectors can contribute to health<sup>21</sup>.



# Primary Health Care

Fitting Together Pieces of the Puzzle

Primary  
Care

Information  
Access &  
Sharing

Inter-  
Sectoral  
Collaboration

Inter-  
Disciplinary  
Teams

Community  
Participation

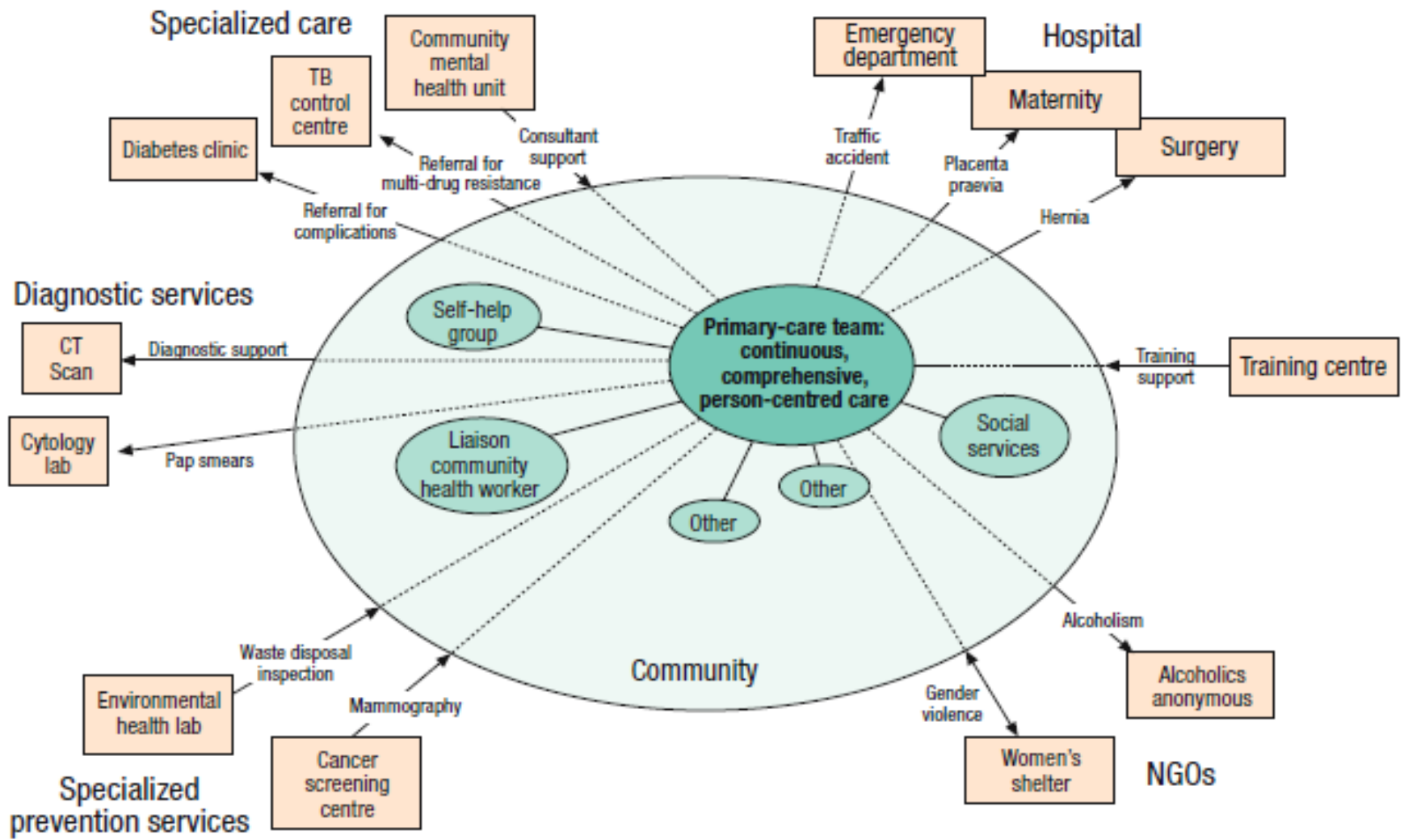
Health  
Promotion, Illness  
Prevention

Treating  
Acute &  
Episodic  
Illness

Support  
for  
Self-Care

Chronic Disease  
Prevention  
& Management

**Figure 3.5 Primary care as a hub of coordination: networking within the community served and with outside partners**<sup>173,174</sup>



**Figure 1** The PHC reforms necessary to refocus health systems towards health for all



# Why Study Health Systems?

- **Health services** provided to people
- Countries spend important share of **national income**
- Individuals spend a considerable share of **family income** on health
- Many health systems do not function as planned
- Health outcomes will improve if **effectiveness and efficiency** of the health system is improved



# What is a Health System?

- All those who **deliver** health care
  - Doctors, nurses, village health workers, and traditional healers
- Money flow that **finances** such care
  - Financial intermediaries, planners, and regulators, who control, fund, and influence those who provide care
- Activities of those who provide **specialized inputs** into the health care process
  - Medical and nursing schools
  - Drug and device manufacturers
  - Organizations that deliver preventive services



# Health System Building Blocks

## THE SIX BUILDING BLOCKS OF A HEALTH SYSTEM

- Good **health services** are those which deliver effective, safe, quality personal and non-personal health interventions to those that need them, when and where needed, with minimum waste of resources.
- A well-performing **health workforce** is one that works in ways that are responsive, fair and efficient to achieve the best health outcomes possible, given available resources and circumstances (i.e. there are sufficient staff, fairly distributed; they are competent, responsive and productive).
- A well-functioning **health information** system is one that ensures the production, analysis, dissemination and use of reliable and timely information on health determinants, health system performance and health status.
- A well-functioning health system ensures equitable access to essential **medical products, vaccines and technologies** of assured quality, safety, efficacy and cost-effectiveness, and their scientifically sound and cost-effective use.
- A good **health financing** system raises adequate funds for health, in ways that ensure people can use needed services, and are protected from financial catastrophe or impoverishment associated with having to pay for them. It provides incentives for providers and users to be efficient.
- **Leadership and governance** involves ensuring strategic policy frameworks exist and are combined with effective oversight, coalition-building, regulation, attention to system-design and accountability.

# Functions of a Health System

Functions the health system performs

Goals/outcomes of the system

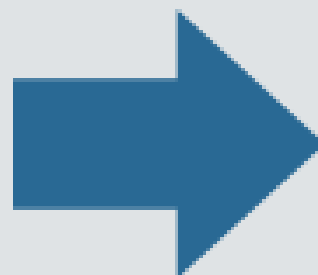
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T

Stewardship

Creating resources  
(investment and training)

Service delivery  
(personal and  
population-based)

Financing  
(collecting, pooling and  
purchasing)



Health  
(level and equity)

Responsiveness  
(to people's non-medical  
expectations)

Financial protection  
(and fair distribution of  
burden of funding)



# Organization of Health Services

- Primary care
- Secondary care
- Tertiary care

**TABLE 5-1** Typical Health System Services in a Low-Income Country, By Level

**Primary Level**

Well baby care  
Sick baby diagnosis  
Maternal health care  
Family Planning  
Diagnosis and treatment of TB

**Secondary Level**

As above, plus:  
Treatment of sick children  
Emergency obstetric care  
Diagnosis and treatment of adult illness  
Basic surgical services  
Some emergency care

**Tertiary Level**

As above, plus:  
Treatment of complicated pediatric cases  
Treatment of complicated adult cases  
Treatment of HIV  
Specialist surgical services  
Advanced emergency care

Source: The Author

**TABLE 5-8** Selected Essential Healthcare Interventions by Level of Service in a “Close to the Client” System

Level of Care	TB	Malaria	HIV/AIDS	Childhood Diseases	Maternal/perinatal	Smoking
<b>Outreach services</b>		Epidemic planning and response Indoor residual spraying	Peer education for vulnerable groups; needle exchange	Specific immunization campaign Outreach IMCI: home management of fever Outreach for micronutrients and deworming		
<b>Health centre/health post</b>	DOTS	Treatment of uncomplicated malaria Intermittent treatment of pregnant women for malaria	Anti-retrovirals plus breast-milk substitutes for mother-to-child transmission Prevention of OI, and treatment of uncomplicated OI VCT Treatment of STIs	IMCI Immunization Treatment of severe anemia	Skilled birth attendance Antenatal and postnatal care Family planning post partum	Cessation advice; pharmacological therapies for smoking
<b>Hospital</b>	DOTS for complicated TB cases	Treatment of complicated malaria	Blood transfusion for HIV/AIDS HAART treatment of severe OI for AIDS Palliative care	IMCI: severe cases	Emergency obstetric care	

Source: Adapted with permission from Jha P, Mills A. Improving health outcomes for the poor. Report of Working Group 5 of the Commission on Macroeconomics and Health. Geneva; WHO; 2002:52.

# WHO: Facing A Health Crisis

- Developing countries have 84% of global pop and 90% of global disease burden
  - ❖ Only have 12% of health spending
- Developing countries have fewest resources for financing health services
- Middle income countries also face severe challenges to provide health services
- High income countries face major cost pressures from **non communicable diseases**

# Public, Private and NGO Sectors

- **Public Sector:** national, state, or municipal level
- **Private Sector:** for-profit and not-for-profit
- **Nongovernmental Organizations (NGOS):** large or small, local, national, or international

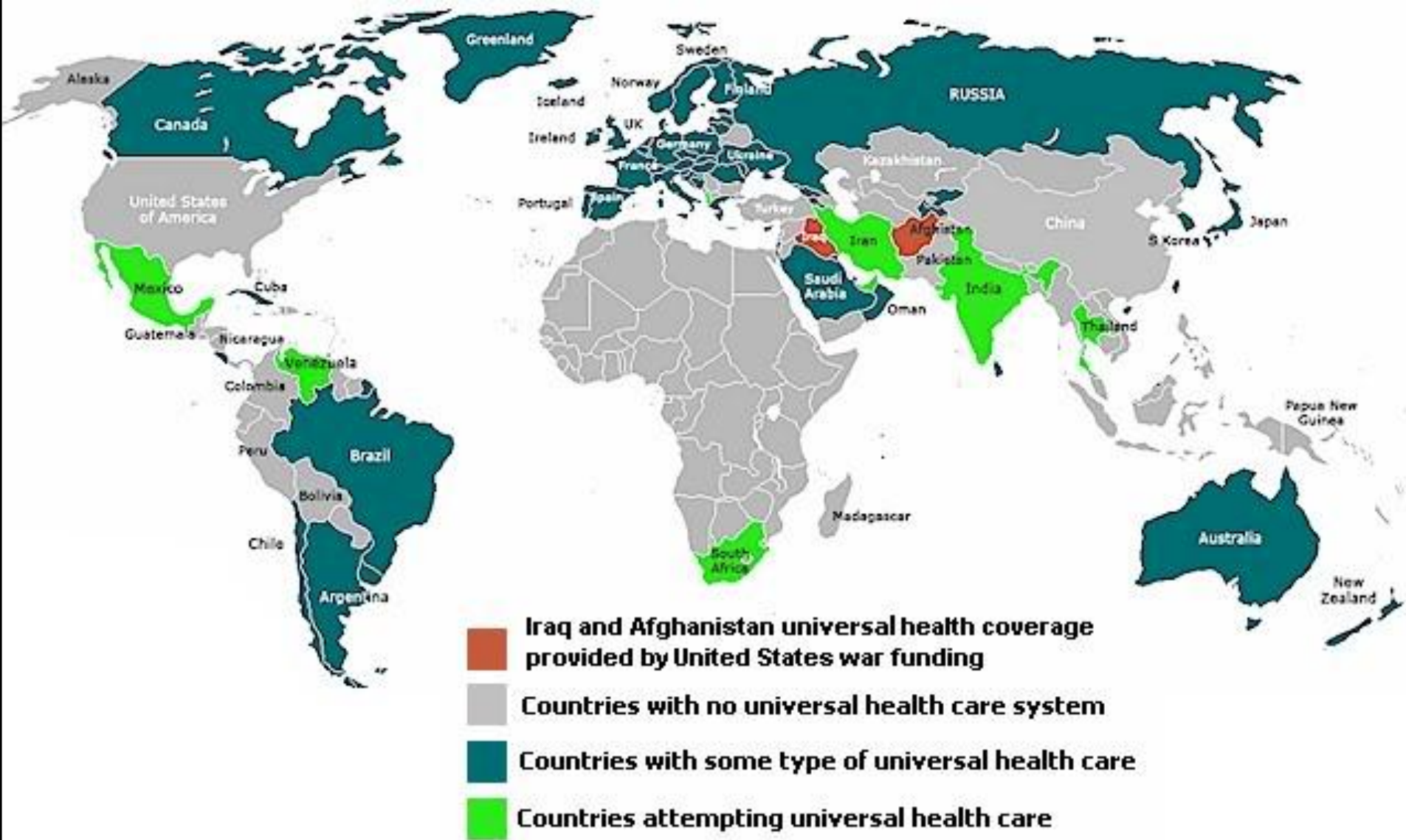


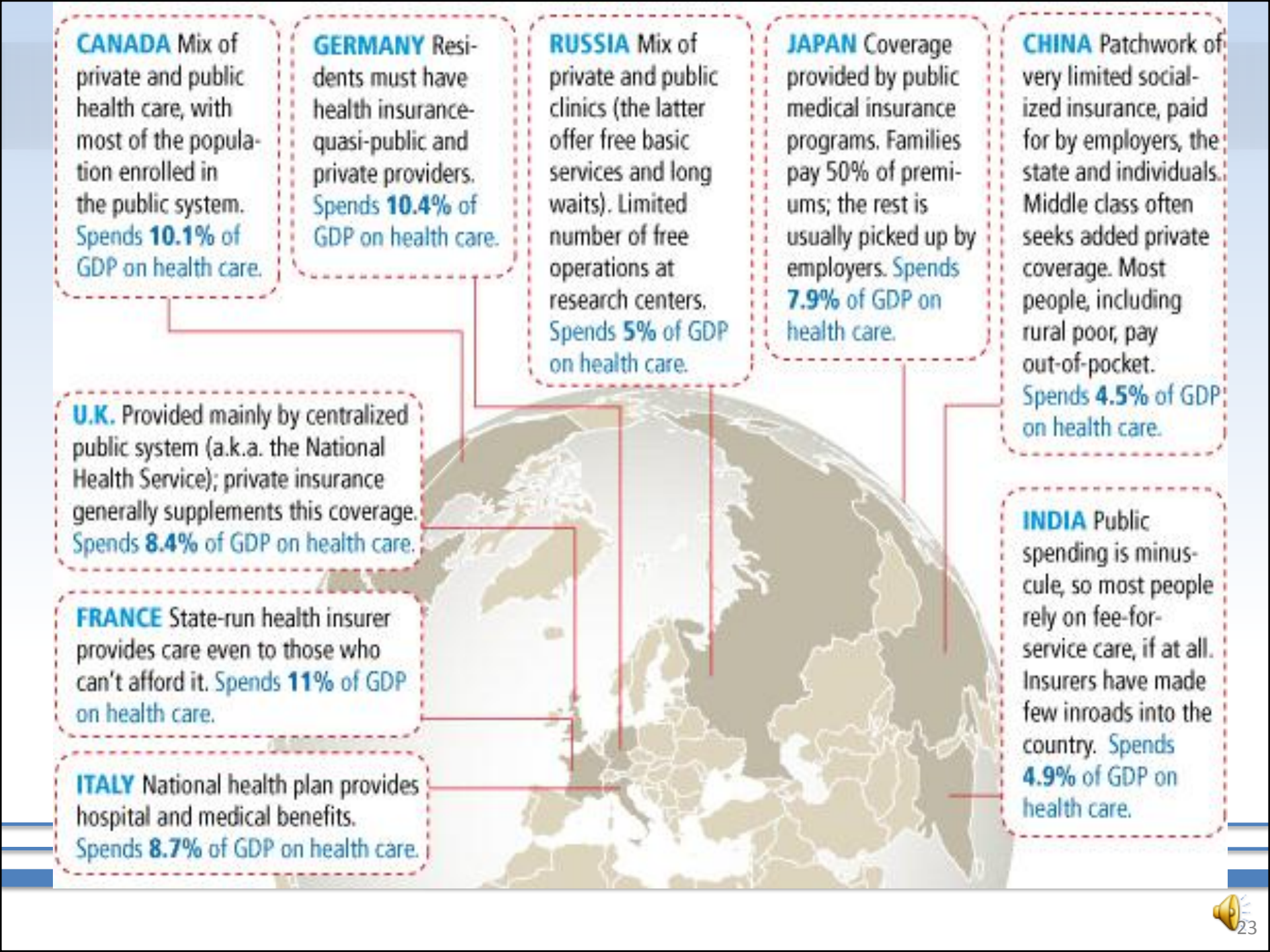
**TABLE 5-3** Overview of Health Systems and Their Management

<b>Characteristic/Properties</b>	Tax-financed system (Beveridge)	Premium-financed system (Bismarck)	Private insurance system
<b>Type</b>	National health service	Social insurance	Pluralistic
<b>General Definition</b>	Government-regulated care with health services	Health care as guaranteed basic right	Health goods are largely consumer goods
<b>Finance</b>	Taxes (every taxpayer contributes)	Contributions from employee/employers	Largely private finance
<b>Service Organization</b>	Public	Private/public	Largely private
<b>State Intervention</b>	Strong/direct	Mostly indirect	Weak/indirect

Source: Modified with permission from Southby R. Unpublished Presentation. Washington, DC: 2001.

# Universal Health Care Systems: World Map





**CANADA** Mix of private and public health care, with most of the population enrolled in the public system. Spends **10.1%** of GDP on health care.

**GERMANY** Residents must have health insurance—quasi-public and private providers. Spends **10.4%** of GDP on health care.

**RUSSIA** Mix of private and public clinics (the latter offer free basic services and long waits). Limited number of free operations at research centers. Spends **5%** of GDP on health care.

**JAPAN** Coverage provided by public medical insurance programs. Families pay 50% of premiums; the rest is usually picked up by employers. Spends **7.9%** of GDP on health care.

**CHINA** Patchwork of very limited socialized insurance, paid for by employers, the state and individuals. Middle class often seeks added private coverage. Most people, including rural poor, pay out-of-pocket. Spends **4.5%** of GDP on health care.

**U.K.** Provided mainly by centralized public system (a.k.a. the National Health Service); private insurance generally supplements this coverage. Spends **8.4%** of GDP on health care.

**FRANCE** State-run health insurer provides care even to those who can't afford it. Spends **11%** of GDP on health care.

**ITALY** National health plan provides hospital and medical benefits. Spends **8.7%** of GDP on health care.

**INDIA** Public spending is minuscule, so most people rely on fee-for-service care, if at all. Insurers have made few inroads into the country. Spends **4.9%** of GDP on health care.

# “Developed” Care

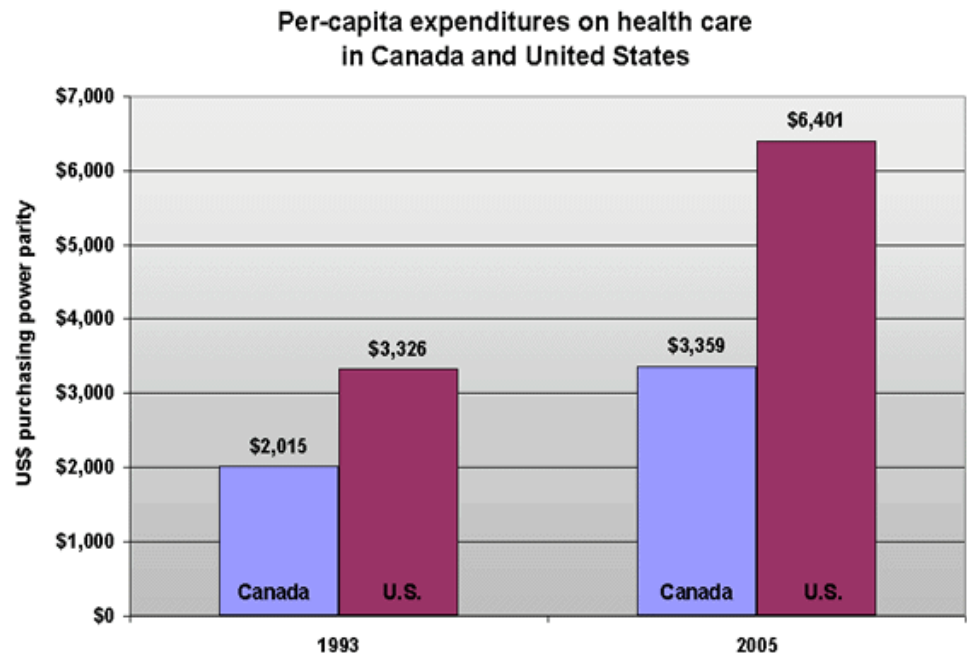
- Health systems are largely **government** sponsored
  - **Social solidarity**
- Provide high quality & access to health care for the majority of the population
- **All** of these systems are challenged by rising costs of medical care
- Note: Ambulatory care refers to health care outside the hospital (outpatient services)



# Canada



- Universal and comprehensive insurance system for hospital & medical care
- No financial access barriers for Canadian citizens
- Publically funded **social insurance system with private delivery**
  - 100% coverage
  - But, access to advanced technology based on **medical priority**
  - Can have extended wait times even for serious conditions



Source: OECD Health Data 2007

# Germany



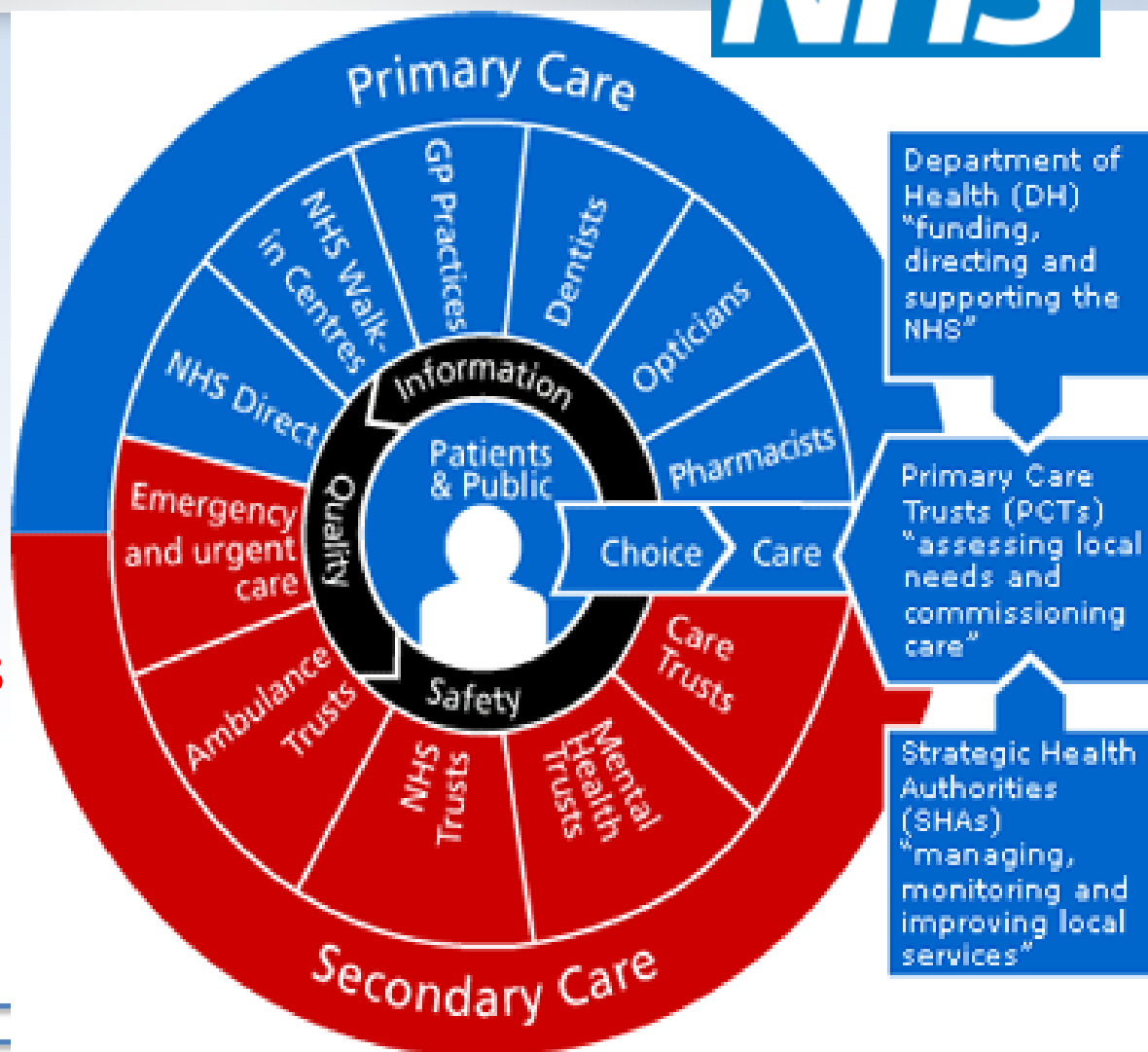
- **Oldest universal program** of health insurance (1883)
- **Sickness funds**
- Health system predominantly funded through **social health insurance** contributions
  - “Contributions” levied as proportion of income only (not wealth) and are not risk-rated
  - Shared equally between employee & employer
  - Freely choose sickness plans by Health Care Structure Act (1996)
- Provides for disease prevention, screening & treatment
  - Ambulatory care, dental, drugs, devices, hospital, cash benefits for disability due to illness



# United Kingdom



- **National Health Service** established in 1948
- Largest publicly funded health service in world
  - Funded by taxpayers
- **Primary care trusts**
- High level of government regulation on health services



# France



- Established in 1945 as a social security program
- Funded by **tax revenues** & social health insurance **contributions from employers and employees**
- **All legal residents** covered by public health insurance
  - Previously based on employment status
  - Now, Universal Health Coverage Act provides everyone with public coverage (2000)
- Patients have free choice of doctor and hospital
  - Do not need referrals or any limit on use of services
  - Covers wide range of goods and services (+ thermal spas days!)

# European, U.S. health care compared

Health care systems in Europe vary widely, but all provide universal coverage for less money than the United States, even though populations are older.

**United States:** A public/private hybrid system. The Department of Veterans Affairs provides British-style government-run care; Medicare and Medicaid are government-insurance for the elderly and poor using private doctors and hospitals; non-elderly are covered mainly through private insurance. Employers provide most private insurance because they get a tax subsidy.



**United Kingdom:** Health care, including doctors and hospitals, is mostly government-owned and operated; waiting lists have been shortened, and experts laud the focus on primary care. Critics say wealthy people can bypass the system with private insurance.

**The Netherlands:** Private insurers compete for individual consumers through a regulated market exchange. Employers do not provide coverage. Everyone is required to buy insurance, subsidies are provided and benefit packages are regulated. Consolidation of insurers has some observers worried.

**Germany:** The world's oldest public insurance system created by Chancellor Otto von Bismarck in 1883. Workers choose from many public insurance funds operated through employers and the government. Care is delivered by private doctors. Everyone is required to buy insurance; more than 10 percent buy private insurance. Rising costs are a concern; the government is moving to add more competition.

**Switzerland:** Relies on competing private insurers, with no public system. Insurers do not make a profit on basic coverage and are highly regulated. Employers do not provide coverage. Insurance is subsidized; no one pays more than 8 percent of their income. Patient costs are somewhat high to promote cost-consciousness. President Bill Clinton cited the Swiss model when urging Senate Democrats to pass a health reform bill.

## Average length of hospital stay for a heart attack (in days)

## Health care spending per capita

U.S.	\$7,290
U.K.	\$2,992
Germany	\$3,588
Netherlands	\$3,837
Switzerland	\$4,417

## Annual physician visits per capita

U.S.	3.8
U.K.	4.0
Germany	7.5
Netherlands	5.7
Switzerland	4.0

## Acute-care hospital beds per 1,000 people

U.S.	2.7
U.K.	2.6
Germany	5.7
Netherlands	3.0
Switzerland	3.5

## Obesity, percent of population

U.S.	34.3
U.K.	24.0
Germany	13.6
Netherlands	11.2
Switzerland	8.1

## Coronary bypasses per 100,000 people

U.S.	85
U.K.	45
Germany	132
Netherlands	58
Switzerland	31

U.S.	5.4
U.K.	8.9
Germany	11.0
Netherlands	7.1
Switzerland	7.9

**TABLE 5-4** Total Health Expenditure as a Percentage of GDP and Private Expenditure on Health as a Percentage of Total Expenditure of Health, Selected Countries, 2009

Country	Health Expenditure as % of GDP	Private Health Expenditure as % of Total Health Expenditure
Indonesia	2.4	48.2
Pakistan	2.6	67.2
Bangladesh	3.4	68.3
Philippines	3.8	65.1
Sri Lanka	4.0	54.8
India	4.2	67.2
Thailand	4.3	24.2
Kenya	4.3	66.2
Peru	4.6	41.4
Egypt	5.0	58.9
Cameroon	5.6	72.1
Nepal	5.8	64.7
Cambodia	5.8	72.7
Nigeria	5.8	63.7
Dominican Republic	5.9	58.6
Haiti	6.1	77.9
Vietnam	7.2	61.3
Sudan	7.3	72.6
Afghanistan	7.4	78.5
Israel	7.6	41.1
Ghana	8.1	46.8
South Africa	8.5	59.9
Australia	8.5	32.3
Brazil	9.0	54.3
Jordan	9.3	35.4
Ireland	9.7	20.4
Costa Rica	10.5	32.6
Denmark	11.2	13.6
France	11.7	20.8
Cuba	11.8	6.9
United States of America	16.2	51.4

Source: Data from WHO. Global Health Observatory. Health expenditure ratios. Available at: <http://apps.who.int/ghodata>. Accessed June 6, 2011.

# IOM Elements of Quality

1. Safe
2. Effective
3. Patient-centered
4. Timely
5. Efficient
6. Equitable

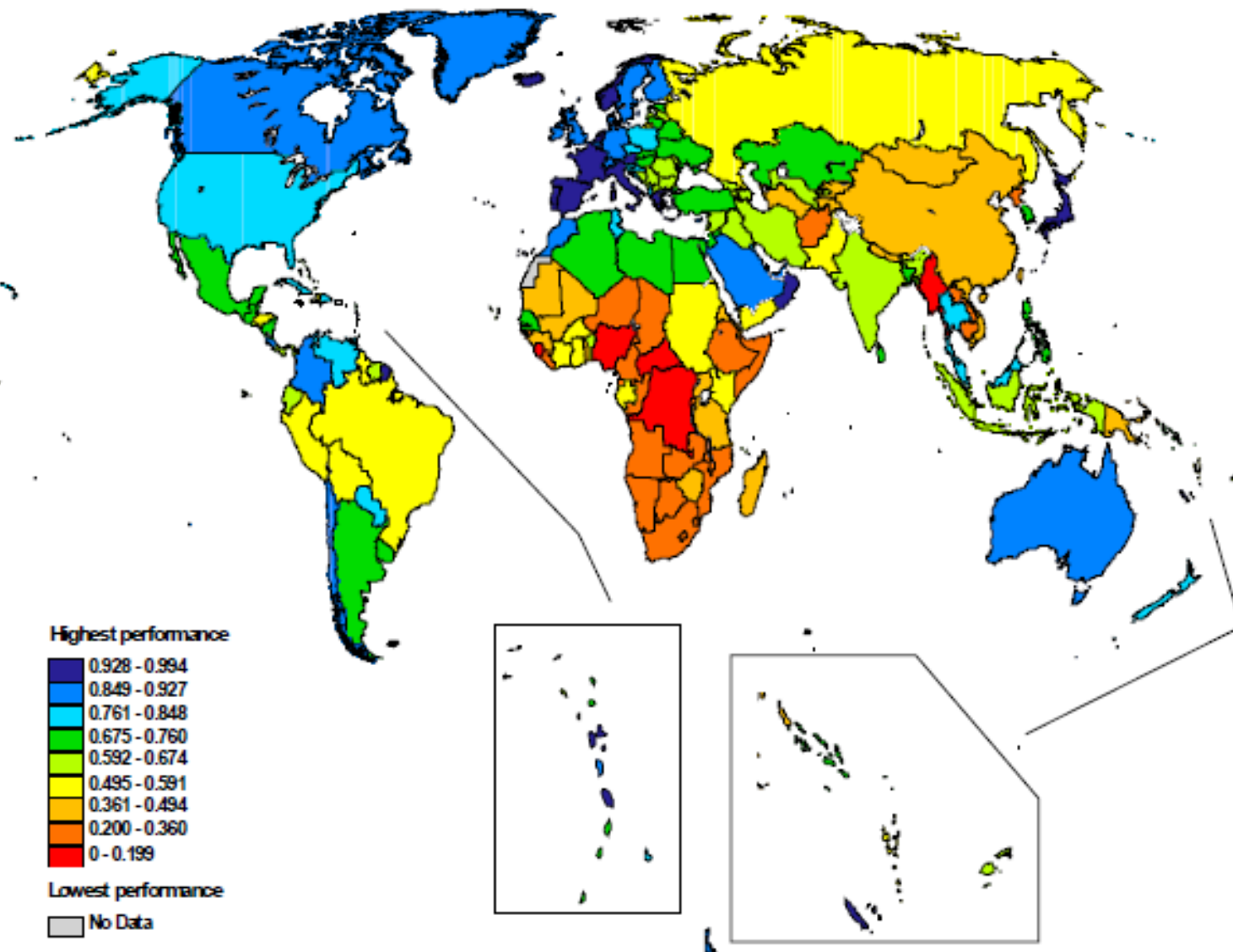
**Figure ES-1. International Rankings and National Health Expenditures**

	AUS	CAN	GER	NZ	UK	US
<b>Overall Ranking</b>	<b>4</b>	<b>5</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>6</b>
<b>Patient Safety</b>	<b>4</b>	<b>5</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>6</b>
<b>Effectiveness</b>	<b>4</b>	<b>2</b>	<b>3</b>	<b>6</b>	<b>5</b>	<b>1</b>
<b>Patient-Centeredness</b>	<b>3</b>	<b>5</b>	<b>1</b>	<b>2</b>	<b>4</b>	<b>6</b>
<b>Timeliness</b>	<b>4</b>	<b>6</b>	<b>1</b>	<b>2</b>	<b>5</b>	<b>3</b>
<b>Efficiency</b>	<b>4</b>	<b>5</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>6</b>
<b>Equity</b>	<b>2</b>	<b>4</b>	<b>5</b>	<b>3</b>	<b>1</b>	<b>6</b>
<b>Health Expenditures per Capita*</b>	<b>\$2,903</b>	<b>\$3,003</b>	<b>\$2,996</b>	<b>\$1,886</b>	<b>\$2,231</b>	<b>\$5,635</b>

Note: 1=highest ranking, 6=lowest ranking.

\* Health expenditures per capita figures are adjusted for differences in cost of living. Source: B.K. Frogner and G.F. Anderson, *Multinational Comparisons of Health Systems Data, 2005* (New York: The Commonwealth Fund, Apr. 2006).

Health expenditures data are from 2003, except UK data (2002).



The boundaries and names shown and the designators 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. © WHO 2000. All rights reserved.

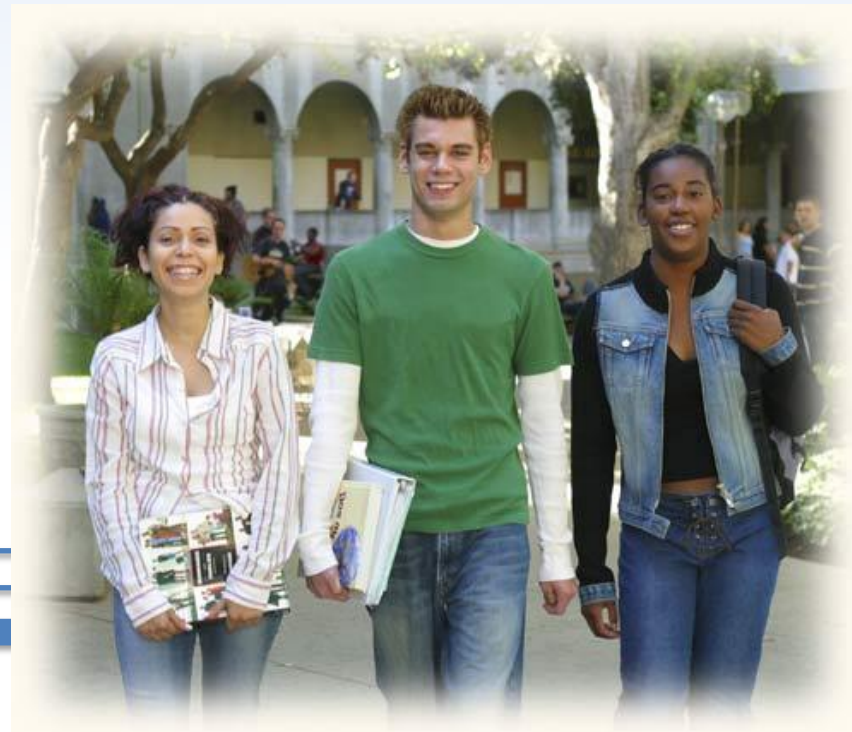
**Figure 10: Global Distribution of Overall Efficiency, 191 WHO Member States, 1997 Estimates**



# United States of America

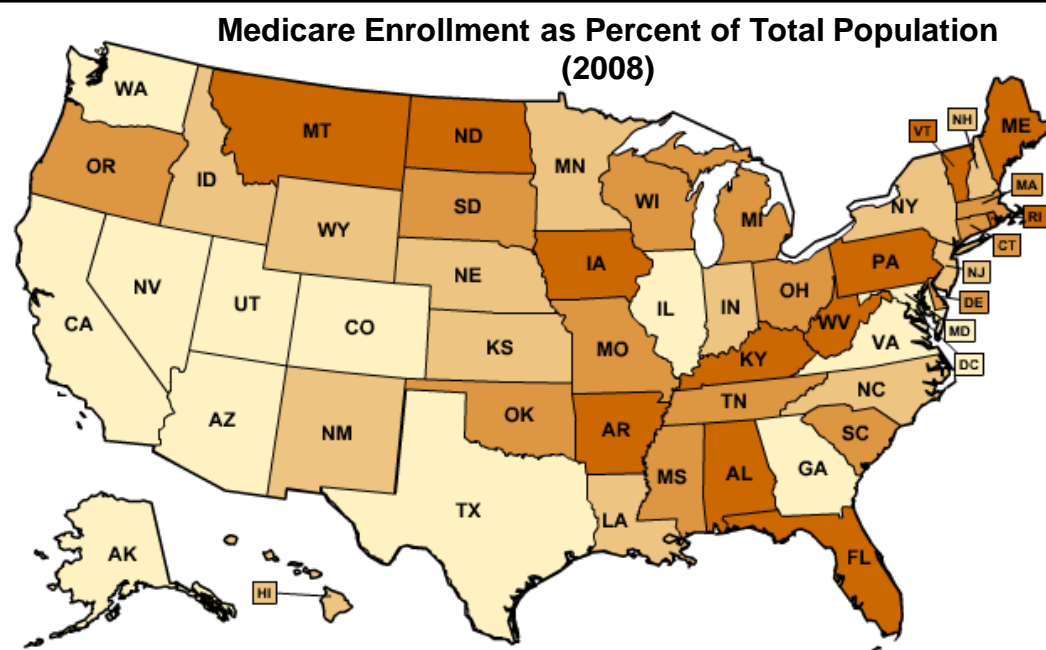


- Health care system is neither universal, comprehensive, or publicly funded (even with a public option)



# Social Insurance

- Medicare
  - Elderly & disabled
  - 45 million enrolled



2010 Income & Resource Levels\*

	Medicaid Standard for Singles People, Couples without Children & Low Income Families		Net Income for Families; and Individuals who are Blind, Disabled or Age 65+		Resource Level
	Annual	Monthly	Annual	Monthly	
1	\$8,479	\$707	\$9,200	\$767	\$13,800
2	\$10,584	\$883	\$13,400	\$1,117	\$20,100
3	\$12,593	\$1,050	\$15,410	\$1,285	\$23,115
4	\$14,622	\$1,219	\$17,420	\$1,452	\$26,130
5	\$16,719	\$1,394	\$19,430	\$1,620	\$29,145
6	\$18,253	\$1,522	\$21,440	\$1,787	\$32,160
7	\$19,869	\$1,656	\$23,450	\$1,955	\$35,175
8	\$21,943	\$1,829	\$25,460	\$2,122	\$38,190
9	\$23,131	\$1,928	\$27,470	\$2,289	\$41,205
10	\$24,321	\$2,027	\$29,480	\$2,457	\$44,220
For each additional person, add:		\$99	\$2,010	\$168	\$3,015

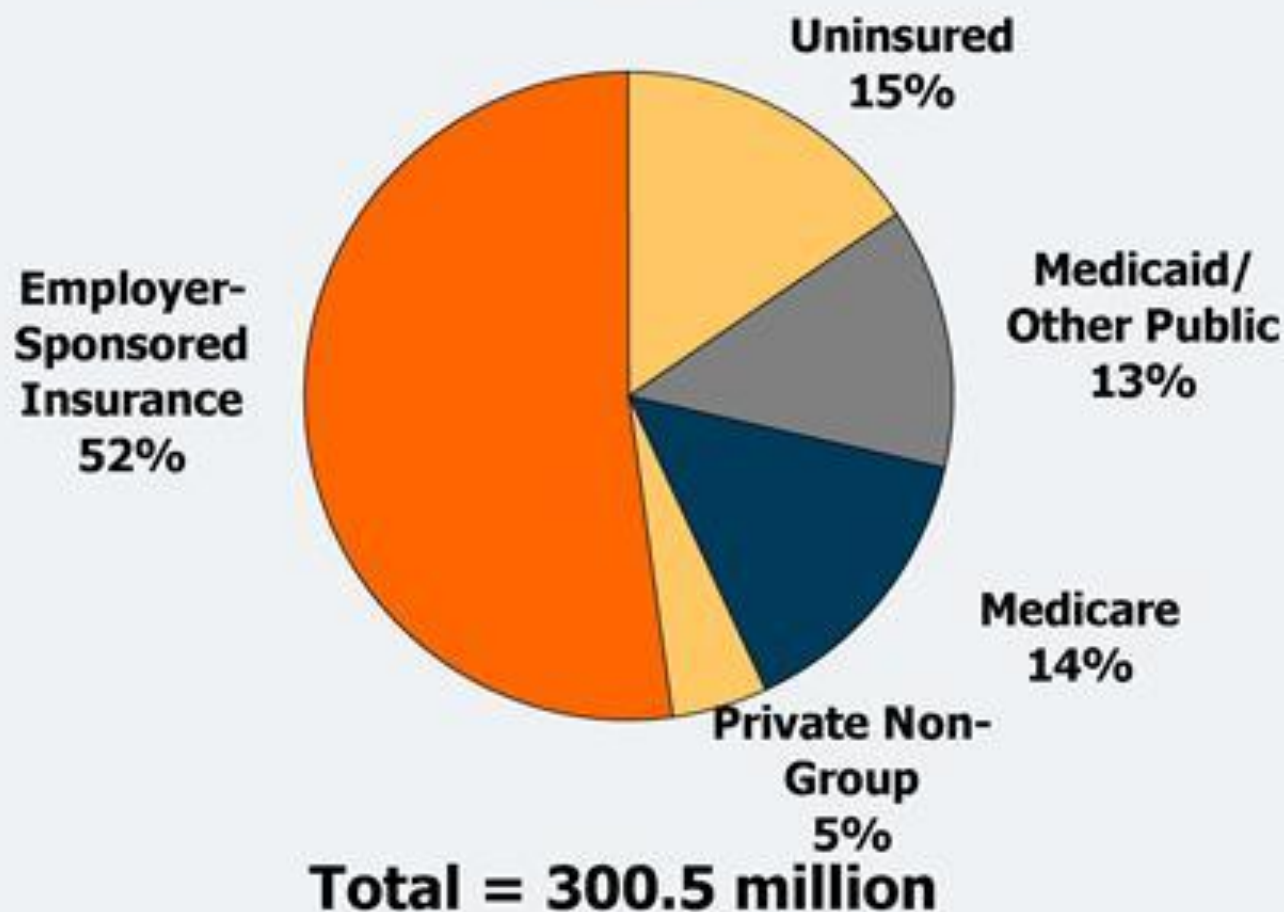
\*Effective January 1, 2010

- Medicaid
  - Poor
  - 59 million enrolled

# United States: Medicare

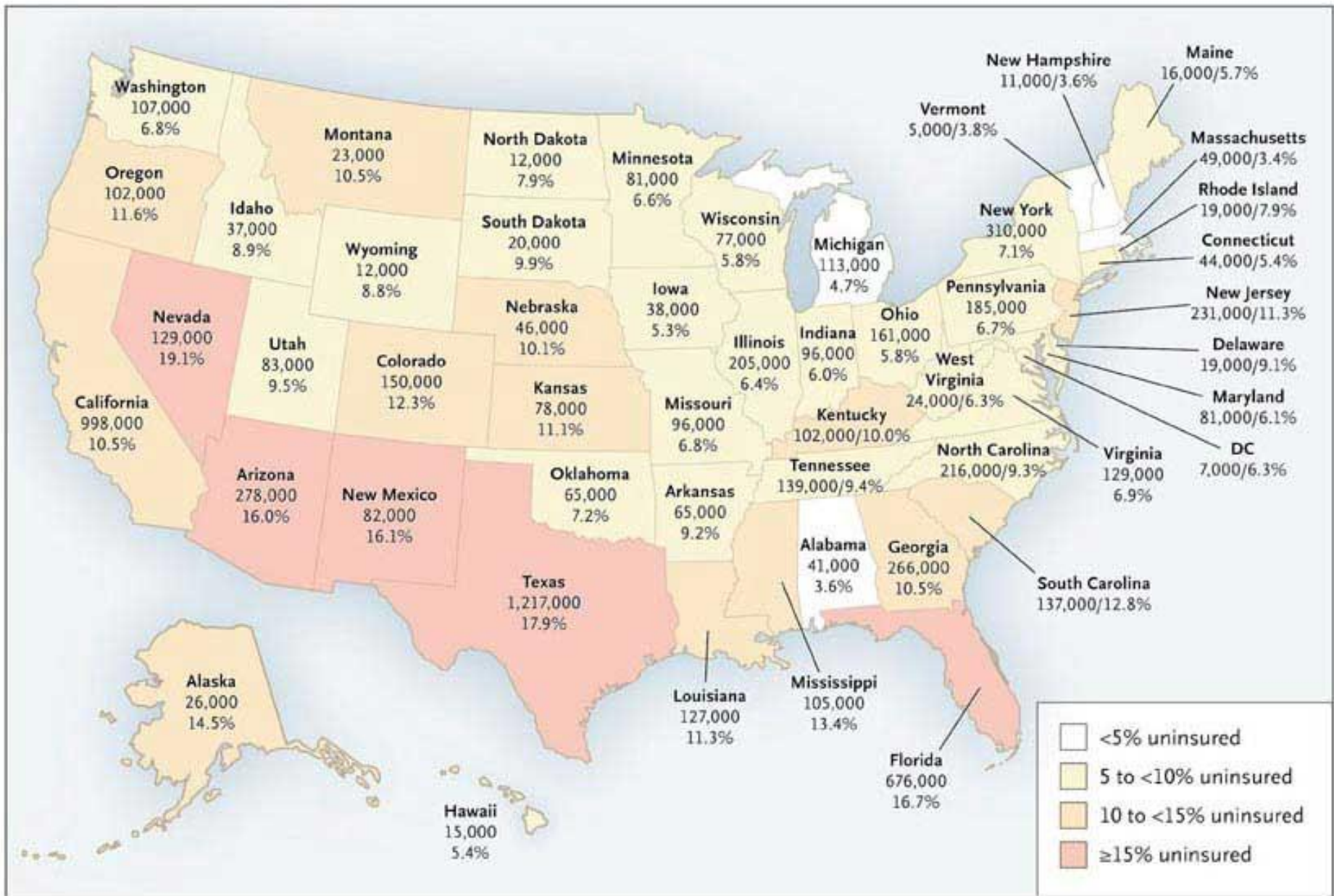
- **Part A (Hospital Insurance):**
  - Covers almost all Americans over age 65 or disabled for 2 + years
  - Reimbursed for hospital care, nursing home care, and hospice services
- **Part B (Medical Insurance):**
  - Reimbursed for outpatient services, lab work, med supplies, physical therapy, med equipment, & dialysis
- **Part D:**
  - Prescription drug coverage plan
  - Pays 75% of drug costs above \$250 to a cap

# Health Insurance Coverage in the U.S., 2008



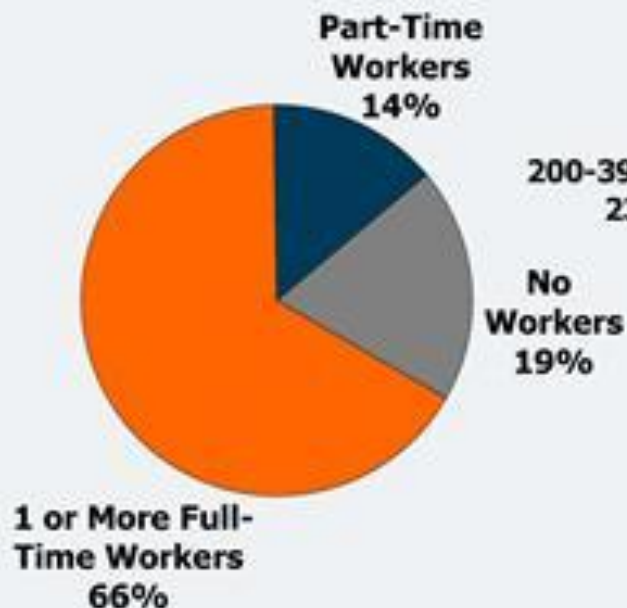
NOTE: Includes those over age 65. Medicaid/Other Public includes Medicaid, SCHIP, other state programs, and military-related coverage. Those enrolled in both Medicare and Medicaid (1.9% of total population) are shown as Medicare beneficiaries.

SOURCE: Kaiser Commission on Medicaid and the Uninsured/Urban Institute analysis of March 2009 CPS

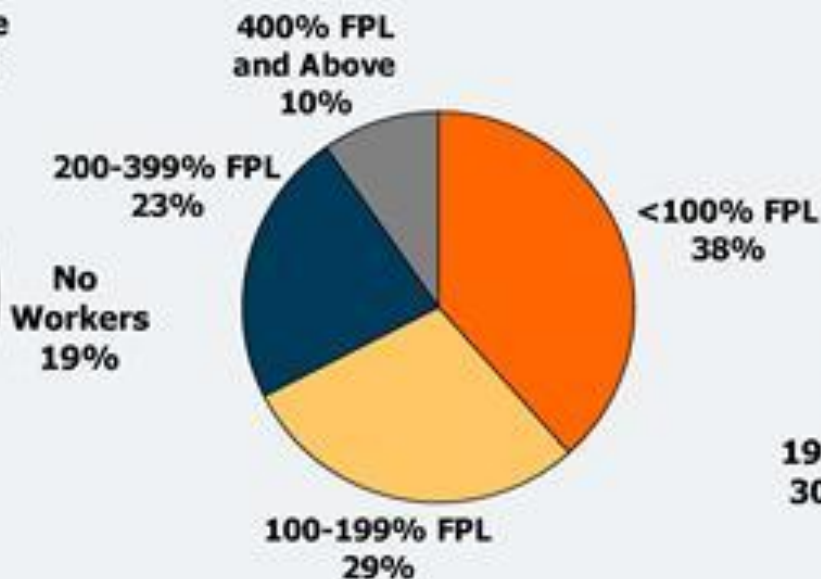


# Characteristics of the Uninsured, 2008

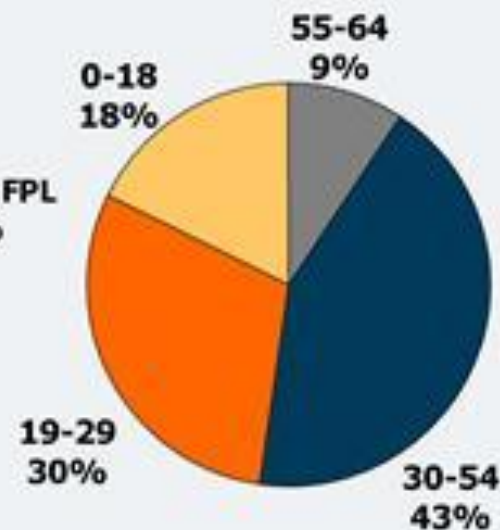
## Family Work Status



## Family Income



## Age




**Total = 45.7 million uninsured**




The federal poverty level was \$22,025 for a family of four in 2008. Data may not total 100% due to rounding.  
SOURCE: KCMU/Urban Institute analysis of 2009 ASEC Supplement to the CPS.

# U.S. Vital Statistics by State

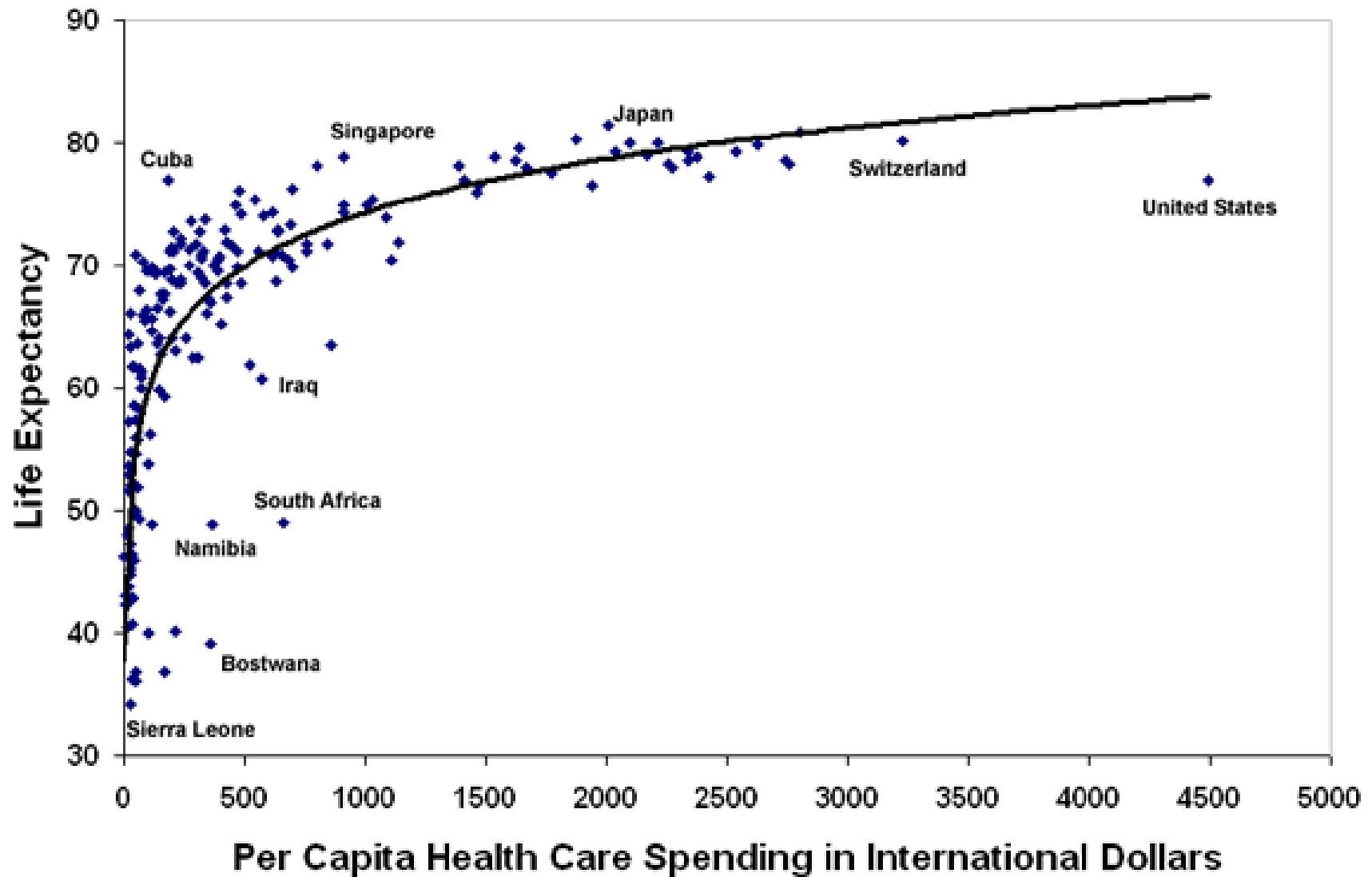
**Infant Mortality Rate (Deaths per 1,000 Live Births) 2005**

Rank (1=high   51=low)	Infant Death Rate 
<b>United States</b>	6.8 <sup>1</sup>
1. District of Columbia	12.2
2. Mississippi	10.7
3. Louisiana	9.8
4. South Carolina	9.0
4. Delaware	9.0
4. Alabama	9.0
7. Tennessee	8.9
8. North Carolina	8.6
9. Georgia	8.4
10. Arkansas	8.3
11. Michigan	8.0
11. Maryland	8.0
13. Oklahoma	7.9
13. Indiana	7.9
15. Ohio	7.8
16. West Virginia	7.7
17. Missouri	7.6
18. Virginia	7.5
18. Illinois	7.5
20. Pennsylvania	7.3
21. South Dakota	7.2
21. Florida	7.2

## Percentage of Mothers Beginning Prenatal Care in the First Trimester by Race/Ethnicity

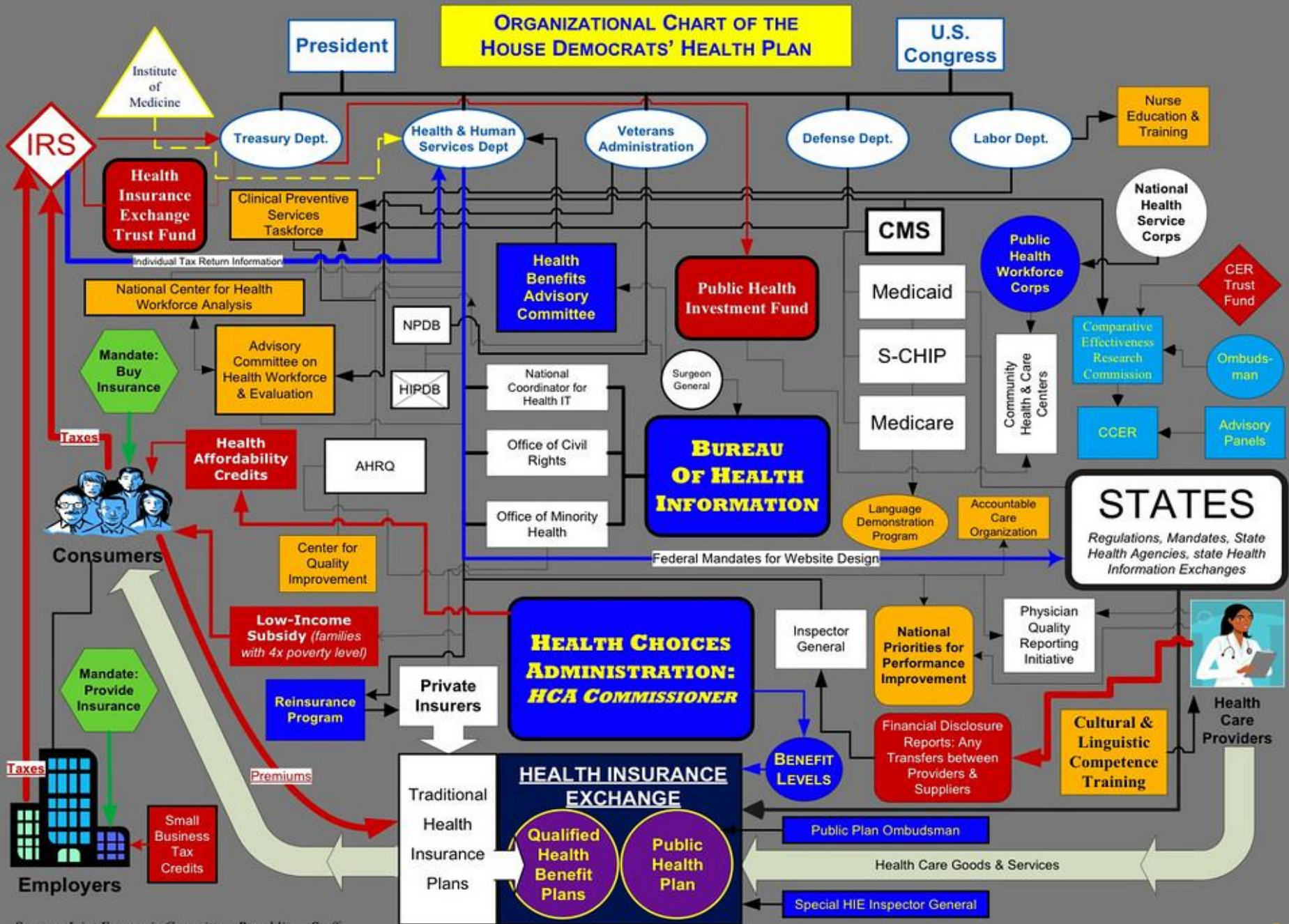
	Non-Hispanic White 	Non-Hispanic Black 	Hispanic 
<b>United States</b>	88.1% <sup>1</sup>	76.1% <sup>1</sup>	77.3% <sup>1</sup>
Alabama	88.5%	76.0%	50.6%
Alaska	85.0%	82.9%	82.4%
Arizona	86.8%	77.9%	70.2%
Arkansas	83.0%	72.6%	69.7%
California	89.8%	81.9%	83.8%
Colorado	85.7%	73.7%	69.4%
Connecticut	91.4%	75.0%	75.1%
Delaware	82.5%	73.1%	55.5%
District of Columbia	92.2%	74.9%	67.0%
Florida	76.1%	61.0%	66.2%
Georgia	89.4%	78.9%	73.3%
Hawaii	85.2%	85.5%	82.0%
Idaho	74.5%	64.0%	58.1%
Illinois	90.7%	76.7%	82.5%
Indiana	82.8%	66.5%	64.1%
Iowa	88.5%	73.0%	71.7%
Kansas	80.5%	64.4%	55.6%
Kentucky	75.1%	64.7%	56.1%
Louisiana	92.3%	79.9%	79.9%
Maine	88.3%	69.8%	82.5%
Maryland	89.2%	76.2%	65.0%
Massachusetts	91.4%	80.4%	80.4%

# Life Expectancy vs. Spending



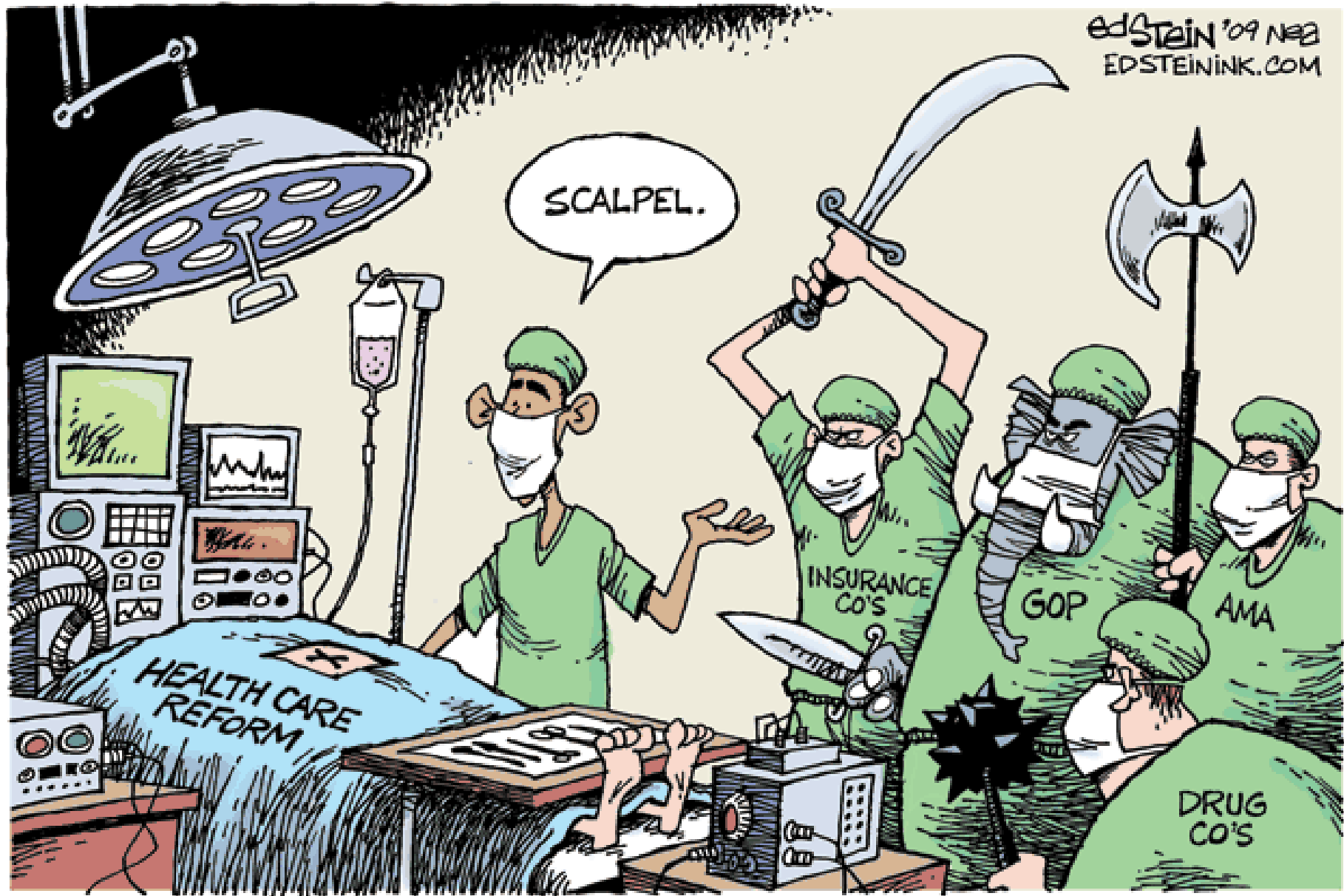


# ORGANIZATIONAL CHART OF THE HOUSE DEMOCRATS' HEALTH PLAN



Source: Joint Economic Committee, Republican Staff Congressman Kevin Brady, Ranking House Republican Member.





# Global Health Workforce

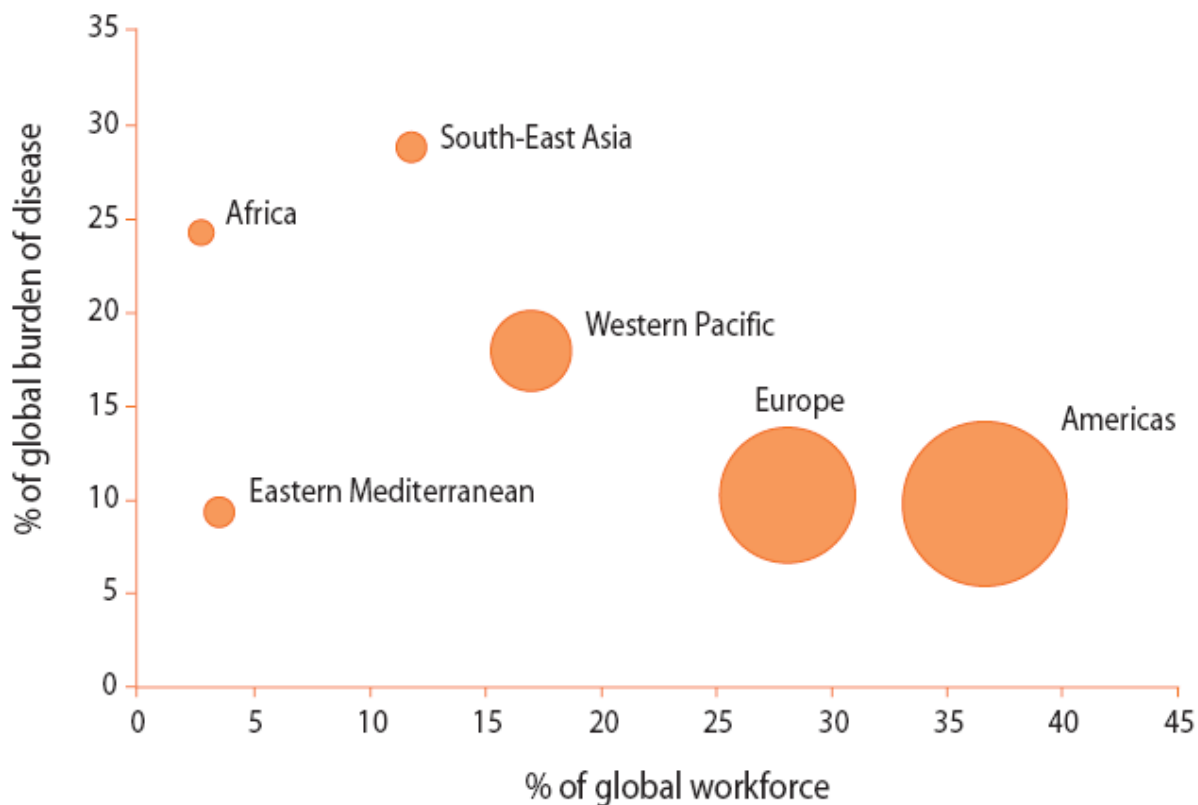
## THE HEALTH WORKFORCE IN THE AMERICAS VERSUS SUB-SAHARAN AFRICA

<b>The Americas</b>	<b>Sub-Saharan Africa</b>
14% of the world's population	11% of the world's population
10% of the global burden of disease	25% of the global burden of disease
42% of the world's health workers	3% of the world's health workers
>50% of global health expenditure	<1% of global health expenditure

Source: WHO, 2006

# Distribution of Workforce

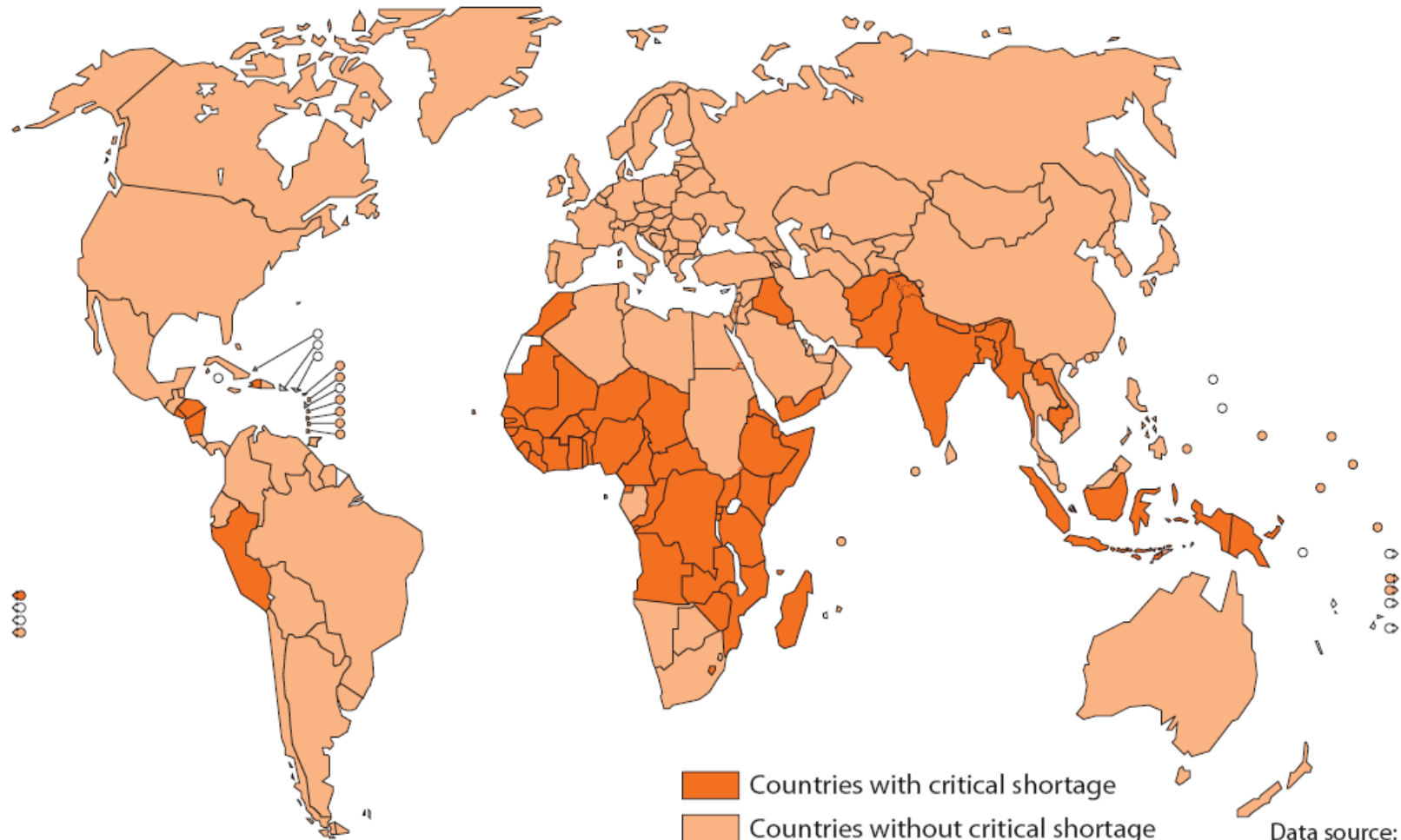
Distribution of health workers by level of health expenditure and burden of disease, by WHO region



Data sources: (3, 18, 19).

# Workforce Critical Shortages

Countries with a critical shortage of health service providers  
(doctors, nurses and midwives)



# Workforce Density

## Global health workforce, by density

WHO region	Total health workforce		Health service providers		Health management and support workers	
	Number	Density (per 1000 population)	Number	Percentage of total health workforce	Number	Percentage of total health workforce
Africa	1 640 000	2.3	1 360 000	83	280 000	17
Eastern Mediterranean	2 100 000	4.0	1 580 000	75	520 000	25
South-East Asia	7 040 000	4.3	4 730 000	67	2 300 000	33
Western Pacific	10 070 000	5.8	7 810 000	78	2 260 000	23
Europe	16 630 000	18.9	11 540 000	69	5 090 000	31
Americas	21 740 000	24.8	12 460 000	57	9 280 000	43
<b>World</b>	<b>59 220 000</b>	<b>9.3</b>	<b>39 470 000</b>	<b>67</b>	<b>19 750 000</b>	<b>33</b>

Note: All data for latest available year. For countries where data on the number of health management and support workers were not available, estimates have been made based on regional averages for countries with complete data.

Data source: (3).

# Global Health Care Workforce

Dr. John Awoonor-Williams is only doctor at Nkwanta District Hospital, Ghana, serving 187, 000 in remote, vast area in the northern part of the Volta Region





# SPENDING ON HEALTH: A GLOBAL OVERVIEW

Total global expenditure for health	<b>US\$ 4.1 trillion +</b>
Total global expenditure for health per person per year:	<b>US\$ 639</b>
Country with highest total spending per person per year on health:	<b>United States (US\$ 6103)</b>
Country with lowest total spending per person per year on health:	<b>Burundi (US\$ 2.90)</b>
Country with highest government spending per person per year on health:	<b>Norway (US\$ 4508)</b>
Country with lowest government spending per person per year on health:	<b>Burundi (US\$ 0.70)</b>
Country with highest annual out-of-pocket household spending on health:	<b>Switzerland (US\$ 1787)</b>
Country with lowest annual out-of-pocket household spending on health:	<b>Solomon Islands (US\$ 1.00)</b>
Average amount spent per person per year on health in countries belonging to the Organisation for Economic Co-operation and Development (OECD):	<b>US\$ 2716</b>
Percentage of the world's population living in OECD countries:	<b>18%</b>
Percentage of the world's total financial resources devoted to health currently spent in OECD countries:	<b>80%</b>



# Global Health Statistics

Annual spending by the municipal government of New York City (population 8.2 million) on health: **US\$ 429 million**

Annual spending by the government of Bénin (population 8.2 million) on health: **US\$ 86 million**

WHO estimate of minimum spending per person per year needed to provide basic, life-saving services: **US\$ 35 to US\$50**

Number of WHO Member States where health spending--including spending by government, households and the private sector and funds provided by external donors--is lower than US\$50 per person per year: **64**

Number of WHO Member States where health spending is lower than US\$20 per person per year: **30**

Percentage of funds spent on health in WHO's Africa Region that has been provided by donors: **14%**

# Practice Questions

- Define primary health care.
- What happened at the Alma Ata convention?
- Describe 4 core components of PHC.
- Describe the 5 problems that can occur in health delivery.
- What are the 4 functions & 3 outcomes of a health system?
- Compare the health system in the US to other European countries.
- What are the 6 elements of quality?
- What is the infant mortality rate in the US?
- What is brain drain? Why is there a global shortage of health workers?

# In Summary...

- Primary care provides basic health services to all
- The main functions of a health system are to raise money for health services, provide health services, pay for health services, and engage in governance and regulation of health activities.
- Health systems have three levels of health care: primary, secondary, and tertiary
- The public, private, and NGO systems have different roles in different countries
- Strengthening health systems is critical to improving health outcomes and quality