Public Health and International Health Comparisons: Where does the US fit in

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Today’s Topics

• What is public health
• How does the US compare to other countries on systems/cost/access
• Discussion
What is public health?

Where have you interacted with the public health system?
Public Health Mission

• Fulfilling society’s interest in assuring conditions in which people can be healthy

Can it get any broader than that?

Public Health Legal Responsibilities

• Prompt detection of, investigation of, and response to threats to the health of the population,
• Threats may be due:
  • known organisms,
  • previously uncharacterized disease, or
  • a covert deliberate terrorist event
Core functions of public health

• Assessment
• Policy Development
• Assurance

Assessment

Every public health agency should regularly and systematically collect, assemble, analyze and make available information on the health of the community including:

• statistics on health status,
• community health needs and
• epidemiologic and other studies of health problems.
Policy Development

Responsibility to serve the public interest in the development of comprehensive public health policies by promoting the use of the scientific knowledge base in decision-making about public health and by leading in developing public health policy.

- Healthy People 2020

Assurance

Agencies must assure constituents that services necessary to achieve goals are provided:

- Encouraging actions by other entities (private or public)
- Requiring action through regulation
- Providing services directly
Essential public health services

1. Monitor health status to identify community health problems
2. Diagnose/investigate health problems and health hazards in community
3. Inform, educate, and empower people about health issues
4. Mobilize community partnerships to identify/solve health problems
5. Develop policies and plans that support individual and community health efforts

6. Enforce laws and regulations that protect health and ensure safety
7. Link people to needed personal health services and assure the provision of health care when otherwise unavailable
8. Assure a competent public health and personal health care workforce
9. Evaluate effectiveness, accessibility, and quality of personal and population-based health services
10. Research for new insights and innovative solutions to health problems
Public Health System

The backbone of the system:
• The governmental public health infrastructure

Complimentary components
• The private health care delivery system
• Community
• Business and employers
• The media
• Academia (public health/health sciences)

Public Health System-govt

Federal
• Department of Health and Human Services

State
• Iowa Department of Public Health

Local
• Johnson County Health Dept.
Public Health Service Areas

• Bioterrorism/Emergency Preparedness
• Infectious Diseases/animal born
• Environmental Health
• Epidemiology
• Immunization
• Maternal and Child Health
• Nutrition
• Traveler’s Health

Changing Disease Patterns

1) Epidemics (1850-1900)
2) Acute infections (1900-1940)
3) Chronic illnesses (1940-present)
Epidemics (1850-1900)

- Disease etiology unknown
- Simple institutions
- Beginning of public health era
  - clean water
  - sewers
- Period of biggest gain in health status

Gains in Health Status

- Since 1900, the average life span of Americans has increased by over 30 years.
- No less than 25 of these 30 plus years are attributed to advances in public health. (MMWR/48,12;241-243)
- Water Fluoridation-one of the 10 most important public health measures of 20th Century (CDC-1999)
Acute Infections (1900-1940)

- Science basis begins
- More complex institutions
- Age of antibiotics
- Ability to treat the individual begins

Chronic Illness (1940-present)

- Explosion in science, technology
- Complex institutions developed
- Most treatment is to increase quality of life—not prevent death
- Lifestyle related illnesses more prevalent
  - smoking
  - car accidents
  - exercise, nutrition
Areas with most unmet need

- Mental health
- Oral health
- Big impact on quality of life

Result: Changing Mortality Patterns

<table>
<thead>
<tr>
<th>1900</th>
<th>1990</th>
<th>2007</th>
<th>2000*</th>
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<tbody>
<tr>
<td>Pneumonia</td>
<td>Heart disease</td>
<td>Heart disease</td>
<td>Tobacco</td>
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<tr>
<td>TB</td>
<td>Cancer</td>
<td>Cancer</td>
<td>Diet/physical inactivity</td>
</tr>
<tr>
<td>Gastritis</td>
<td>Accidents</td>
<td>Stroke</td>
<td>Alcohol</td>
</tr>
<tr>
<td>Heart disease</td>
<td>Stroke</td>
<td>COPD</td>
<td>Microbial agents</td>
</tr>
<tr>
<td>Stroke</td>
<td>COPD</td>
<td>Accidents</td>
<td>Toxic agents</td>
</tr>
<tr>
<td>Nephritis</td>
<td>Chronic liver dx</td>
<td>Alzheimers</td>
<td>MVC/ Firearms</td>
</tr>
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</table>

### Health vs health care

- Many determinants best addressed by public health

### Determinants of health

<table>
<thead>
<tr>
<th>What affects our health</th>
<th>Where does US invest</th>
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<tbody>
<tr>
<td>Lifestyle factors-51%</td>
<td>Lifestyle factors-1.2%</td>
</tr>
<tr>
<td>Environmental factors-19%</td>
<td>Environmental factors-1.8%</td>
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<tr>
<td>Human biology-20%</td>
<td>Human biology-7%</td>
</tr>
<tr>
<td>Health care delivery-10%</td>
<td>Health care delivery-90%</td>
</tr>
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</table>
Social determinants of health

- Early childhood development
- Education
- Employment and working conditions
- Food security
- Health services
- Housing
- Income and income distribution
- Social exclusion
- The social safety net
- Unemployment and job insecurity

http://old.usccb.org/cchd/povertyusa/tour.htm
Discussion

Cost of care in the US?
Health Care Costs

Average spending on health per capita ($US)

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<thead>
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<td>4500</td>
<td>6000</td>
<td>7500</td>
<td>9000</td>
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Total health expenditures as percent of GDP

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<tr>
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<td>4%</td>
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<td>8%</td>
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<td>12%</td>
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<tr>
<td>Canada</td>
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<tr>
<td>France</td>
<td>8%</td>
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<tr>
<td>Australia</td>
<td>10%</td>
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<tr>
<td>United Kingdom</td>
<td>12%</td>
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</tbody>
</table>

Future Topics

- International health comparison
- Public health
- Health insurance-public and private
- Health care reform
- Health information technology
A comparison of US and international health systems

In this presentation

US health care system
  – Health policy drivers
Other health care systems
  – Canada
  – Holland
  – UK
  – Japan
International comparisons
Three issues driving policy

Cost
Quality/Outcomes
Access

Health Care Costs

Average spending on health per capita

Total health expenditures as percent of GDP
Access to care

Financial

Child Insurance Coverage in US, 2007

Health insurance

- Employer
- Individual
- Medicaid
- Other Public
- Uninsured

28%
11%
1.4%
4.4%
Adult Insurance Coverage in US, 2007

Access to care

Other issues
Other Access Issues

- Provider availability
  - HPSAs
  - Rural areas
  - Underserved Inner City Areas
- Providers won’t accept insurance
- Language/cultural barriers

Question

Does the United States have a health care “system”?
International health systems

Many variations
All have universal “access” (cost) except US

1. Canada, Holland and Japan
   - Private delivery system
   - Public insurance program

2. England
   - Public delivery and insurance programs

Canada

Public health insurance program
Operated at provincial level
   - Under federal guidelines

Guaranteed by the Canadian Health Act of 1984
“universal, accessible, comprehensive, portable and publicly administered health insurance system.”
Criteria of Canada Health Act

1. **public administration**: non-profit basis by a public authority;
2. **comprehensiveness**: all medically necessary services must be insured;
3. **universality**: all entitled to public health insurance coverage on uniform terms and conditions;
4. **portability**: coverage must be maintained when an insured person moves; and
5. **accessibility**: reasonable access by insured persons to medically necessary hospital and physician services must be unimpeded by financial or other barriers.

Covered services: Canadian insurance

**Insured health services**
- medically necessary hospital, physician and surgical-dental

**Insured hospital services**
- medically necessary in- and out-patient services
- accommodation and meals at standard or ward level
- preferred accommodation if medically required;
- nursing service;
- laboratory, radiological and other diagnostic procedures,
- drugs, biologicals and related preparations in hospital;
- use of operating room, case room and anesthetic facilities
- medical and surgical equipment and supplies;
- use of radiotherapy and physiotherapy facilities;
Canadian health insurance

Covered persons:
"a person lawfully entitled to be or to remain in Canada who makes his home and is ordinarily present in the province, but does not include a tourist, a transient or a visitor to the province."

Excluded persons include:
—members of the Canadian Forces, RCMP,
—persons serving a term of imprisonment within a federal penitentiary, and
—persons who have not completed a minimum period of residence in a province or territory (a period that must not exceed three months)

Holland health insurance

• Everyone receives a basic insurance package
• Additional package can be purchased by either an employer or the individual from a set of options
• Health care providers are primarily private employees operating in private facilities
• Fees are set for all services and negotiated annually between providers and government
## Levels of Health Insurance in Holland

<table>
<thead>
<tr>
<th>Name</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Public</td>
<td>Public or Private*</td>
<td>Private</td>
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<tr>
<td>Coverage</td>
<td>Catastrophic</td>
<td>Basic services</td>
<td>Supplementary services</td>
</tr>
<tr>
<td>Government influence</td>
<td>++ +</td>
<td>++</td>
<td>+</td>
</tr>
<tr>
<td>Who?</td>
<td>Every Dutch citizen</td>
<td>Every Dutch citizen</td>
<td>Voluntary</td>
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</table>

## Health Insurance in Holland (continued..)

<table>
<thead>
<tr>
<th>Name</th>
<th>AWBZ</th>
<th>Payer</th>
<th>Public</th>
<th>Private</th>
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<tbody>
<tr>
<td>Payer</td>
<td>Government</td>
<td>a) Government for the unemployed and elderly who were in public insurance before age 65</td>
<td>Individual</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>b) Employer and payroll tax for basic for employed population</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>c) Employee for supplemental</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Who is covered</td>
<td>Every Dutch citizen</td>
<td>The majority of adults and children based on income (63% of population)</td>
<td>Higher income adults and children</td>
<td></td>
</tr>
<tr>
<td>Who provides policy</td>
<td>Government</td>
<td>Private companies</td>
<td>Private companies</td>
<td></td>
</tr>
<tr>
<td>Covered services</td>
<td>Established by gov’t</td>
<td>a) Basic established by government</td>
<td>a) Basic established by government</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>b) Supplemental options established by company</td>
<td>b) Supplemental options established by company</td>
<td></td>
</tr>
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</table>
England

National Health Services (NHS)
• Established in 1948 to provide free healthcare for all.
• With about one million employees, the U.K.’s health service is said to be the world's biggest nonmilitary employer after the Indian railways.

England

Organization
• Secretary of state for health
• Department of Health Strategic health authorities
• Primary and secondary health services trusts
England

Secretary of state for health
This is the government minister responsible for the NHS in England and is answerable to Parliament

Department of Health
responsible for the overall planning, regulation and inspection of the health service. It develops policies and decides the general direction of healthcare.

28 Strategic health authorities
  • Regionally established.
  • Oversee healthcare of their region.
  • Link between the Department of Health and the NHS.
  • Make sure that national health priorities (such as cancer programs) are integrated into local health plans.
Private health care in the UK

– more employers are offering membership

Often used for:
– Diagnostic tests
– One-off specialist treatment, such as visiting a dermatologist
– Specific operations in a private hospital
– Non-essential treatment such as cosmetic surgery
– Treatment for addiction or rehabilitation

Private health care in the UK

Private hospitals:
– over 300 private hospitals in England
– Private hospitals are provided by six organizations:
  • the NHS, which runs a number of private patient units within its hospitals
  • five private hospital groups:
    – BMI Healthcare,
    – BUPA,
    – Nuffield Hospitals,
    – Capio Healthcare UK and
    – HCA International.
Japan

• Similar to Canada-public health insurance with mainly private providers.
• Universal public health insurance with comprehensive coverage
• Only modest cost sharing by patients
• Mainly private providers paid mainly by fee-for-service.

Japan

Might expect high healthcare costs
– The share of population that is elderly is above average
– Volume of health care is high
  • Physician visits
  • Pharmaceutical use
  • Hosp admissions low but length of stay high

Physician numbers are relatively low
– Efficient doctors offering ambulatory care

Outcomes—quality vs quantity?
International health care costs

– 13% of GDP
$1,983 OECD Median spending
– 8% of GDP
$2,580 US private per capita health
• Includes health insurance premiums and out-of-pocket costs
– $451 for OECD members

What is bang for the buck?

Quality/outcome

Technical quality
Appropriateness of care
Outcome

Relationship to cost
– Personal
– System
### Health spending as percent of GDP

<table>
<thead>
<tr>
<th>Country</th>
<th>Public</th>
<th>Private</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>6.5%</td>
<td>7.4%</td>
<td>13.9%</td>
</tr>
<tr>
<td>Germany</td>
<td>8.3%</td>
<td>2.4%</td>
<td>10.7%</td>
</tr>
<tr>
<td>France</td>
<td>7.1%</td>
<td>2.5%</td>
<td>9.6%</td>
</tr>
<tr>
<td>Italy</td>
<td>5.3%</td>
<td>2.3%</td>
<td>7.6%</td>
</tr>
<tr>
<td>Japan</td>
<td>5.7%</td>
<td>1.5%</td>
<td>7.2%</td>
</tr>
<tr>
<td>UK</td>
<td>5.8%</td>
<td>1.0%</td>
<td>6.8%</td>
</tr>
</tbody>
</table>

**Kingsfund.org.uk, 2001**

### Rank of health indicators for the G7

<table>
<thead>
<tr>
<th>Country</th>
<th>Health spending</th>
<th>Female life expectancy</th>
<th>Male life expectancy</th>
<th>Infant mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>1</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Germany</td>
<td>2</td>
<td>5</td>
<td>6</td>
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</tr>
<tr>
<td>France</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Canada</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>4=</td>
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<tr>
<td>Italy</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>6</td>
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<tr>
<td>Japan</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>1</td>
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<tr>
<td>UK</td>
<td>7</td>
<td>6</td>
<td></td>
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</tbody>
</table>

**Kingsfund.org.uk, 2001**
Cost/outcomes of US system

Mortality Amenable to Health Care
2002-03*

*Deaths per 100,000 population
Percent satisfied with health system: 1990

- USA: 10%
- Canada: 58%
- France: 42%
- W Ger: 42%
- Sweden: 33%
- Japan: 30%
- UK: 28%

Percent of sicker adults satisfied with health system: 2002

- USA: 36% Fairly satisfied, 18% Very satisfied
- Canada: 41% Fairly satisfied, 21% Very satisfied
- Australia: 48% Fairly satisfied, 15% Very satisfied
- New Zealand: 36% Fairly satisfied, 14% Very satisfied
- UK: 41% Fairly satisfied, 25% Very satisfied

Blendon et al. Health Affairs 2002 2003
Summary

Beware of international comparisons with US

– Health care systems
– Health insurance systems
– Cultural issues

US spends much more than other countries per capita

– Health benefits unclear

Summary

• Much of HCR debate about access to care
• Already have many public programs that provide insurance, direct care or both
• Other countries can be models for providing financial access (i.e., insurance coverage)
• However cultural aspects must be considered when thinking about whether system can be used in US