Shorter, sicker lives: the U.S. health disadvantage

Paula Braveman, MD, MPH
Professor, Family and Community Medicine
Director, Center on Social Disparities in Health
University of California, San Francisco (UCSF)

4.21.14
2:00-3:30 PM

ROOM CHANGE:
SPH 2236, Friedgen Lounge
Shorter, sicker lives: the U.S. health disadvantage

April 21, 2014
University of Maryland Center for Health Equity

Paula Braveman, MD, MPH
Professor of Family & Community Medicine
Director, Center on Social Disparities in Health
University of California, San Francisco
The U.S. Health Disadvantage

- Study commissioned by NIH (OBSSR)
- Does the U.S. health disadvantage apply broadly across age groups and health indicators?
- The National Research Council and the Institute of Medicine convened a panel chaired by Steve Woolf
- Report issued January 2013
More health care spending but less health: life expectancy

Life expectancy at birth, 2011

1. Switzerland 82.8
   Japan 82.7
   Italy 82.6
   Spain 82.5
   France 82.5
   Australia 82.5
   Sweden 82.4
   Norway 82.2
   Netherlands 82.1
   United Kingdom 82.1
   Austria 82.0
   Canada 81.9
   Portugal 81.8
   Germany 81.7
   Finland 81.7
   Denmark 81.6

17. United States 78.7

Source: OECD Health Data, 2013.

*Latest year available for Canada is 2009
More health care spending but less health: infant mortality

1. Finland
2. Japan
3. Sweden
4. Portugal
5. Norway
6. Spain
7. Italy
8. Germany
9. Denmark
10. France*
11. Switzerland
12. Netherlands
13. Austria
14. Australia
15. United Kingdom
16. Canada‡
17. United States

Infant mortality rate (per 1,000 live births), 2010

*Estimate, ‡Latest year available for Canada is 2009

Source: OECD Health Data, 2013.
Mortality from non-communicable disease

Source: World Health Organization (2011a, Table 3).
Mortality from infectious diseases

Source: World Health Organization (2011a, Table 3).
U.S. has the highest or near-highest rates of mortality from:

- Cardiovascular diseases
- Diabetes mellitus
- Respiratory, endocrine, and genitourinary diseases
- Unintentional injuries
- Intentional injuries
- Infectious and parasitic diseases
- Congenital anomalies
- Maternal conditions
- Perinatal conditions
- Nutritional deficiencies
US has the highest or near-highest incidence/prevalence rates of:

- CVD/ CVD risk
- Intentional injury (including gun violence, homicide)
- Unintentional injury (including traffic accidents)
- Adult obesity & overweight/obese children
- Diabetes
- Low birth weight
- HIV/AIDS, STIs
Low birth weight rates

1. Finland
   Sweden
   Norway
   Canada*
   Australia*
   Switzerland
   Netherlands
   France*
   Germany
   Austria
   United Kingdom
   Denmark
   Italy
   Spain
15. United States
   Portugal*
   Japan

Low birth weight infants, 2011 (% of live births weighing < 2500g)

*Latest year available is 2010

Source: OECD Health Data, 2013.
Overweight/obesity among children

Data from 2010 (or latest year). Source: OECD Health at a Glance, 2013.
Obesity among adults

1. Japan* - 4.1%
   Switzerland
   Norway
   Italy
   Sweden
   Netherlands
   Austria
   France
   Denmark
   Germany
   Portugal
   Spain
   Finland
   Canada
   United Kingdom*
   Australia*
   17. United States* - 36.5%

Percent, 2011 (or nearest year)

*Data are based on measurements rather than self-reported height and weight.

Estimated prevalence of diabetes, adults aged 20-79 years

<table>
<thead>
<tr>
<th>Country</th>
<th>Percent, 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweden</td>
<td>4.4%</td>
</tr>
<tr>
<td>Norway</td>
<td>4.0%</td>
</tr>
<tr>
<td>Italy</td>
<td>6.5%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>6.7%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>6.9%</td>
</tr>
<tr>
<td>Germany</td>
<td>7.1%</td>
</tr>
<tr>
<td>France</td>
<td>6.9%</td>
</tr>
<tr>
<td>Denmark</td>
<td>6.8%</td>
</tr>
<tr>
<td>Switzerland</td>
<td>6.7%</td>
</tr>
<tr>
<td>Finland</td>
<td>6.6%</td>
</tr>
<tr>
<td>Spain</td>
<td>6.5%</td>
</tr>
<tr>
<td>Austria</td>
<td>6.4%</td>
</tr>
<tr>
<td>Australia</td>
<td>6.1%</td>
</tr>
<tr>
<td>Canada</td>
<td>6.9%</td>
</tr>
<tr>
<td>United States</td>
<td>9.6%</td>
</tr>
<tr>
<td>Portugal</td>
<td>9.0%</td>
</tr>
</tbody>
</table>

Estimated HIV Prevalence

1. Japan 0.01%
Finland
Germany
Norway
Sweden
Australia
Denmark
Netherlands
United Kingdom
Austria
Canada
Switzerland
Italy
France
Spain
16. United States 0.39%

Data from 2009 or nearest year.
Hypothesis: Medical care?

- U.S. lacks universal coverage
- Fragmented, specialist-oriented, weak primary care
- But U.S. worse on conditions affected little by medical care:
  - Prevalence of diabetes, obesity, low birth weight
  - Intentional and unintentional injury incidence, including homicide, gun violence, traffic deaths
  - HIV, STI incidence

Image: http://www.europeanpostgrad.com/editorial/masters_degree/medicine_health/
Hypothesis: Obesity?

- Undoubtedly contributes to our burden of non-communicable diseases
- But probably not a major cause of high rates of:
  - Low birth weight
  - HIV/AIDS, STIs
  - Intentional injury (including gun violence, homicide)
  - Teen births
Hypothesis: Bad behaviors?

- Less exercise, worse diet
- Alcohol and drug deaths
- Unprotected sex, no seatbelts, firearm use
- Plausible contributor, but U.S. health disadvantage is seen even among non-obese, non-smokers, non-drinkers

Hypothesis: Poverty, especially child poverty?

- U.S. has highest rates of relative poverty overall and among children
  - High rates since 1980s
- Poverty, especially child poverty, has massive and long-lasting adverse effects on health
- Plausible, but U.S. disadvantage is seen among non-poor and poor
More child poverty

1. Finland 3.6
Netherlands
Denmark
Norway
Sweden
Austria
Germany
Switzerland
France
United Kingdom
Australia
Canada
Japan
Portugal
Italy
Spain
17. United States 23.1

% of children, ages 0-17 years, living in poverty, 2010

Hypothesis: Economic inequality & immobility?

- #1 on income inequality
  - Causality debated, but consistently linked with health
  - Plausible pathways: erodes social cohesion/solidarity with multiple effects, including on policies
- Several countries have greater upward mobility
- #1 on incarceration: Reflects profound disadvantage affecting families, communities, and prisoners, particularly African Americans and Latinos
Hypothesis: Racial/ethnic diversity?

- Racial inequality could contribute to worse health
- But does not explain US disadvantage among non-Latino Whites
- And immigrants are generally healthy

Image: http://www.rwjf.org/content/dam/farm/reports/reports/2013/rwjf407528/
Hypothesis: Weak social safety nets?

- Weak safety nets e.g., for: medical care, unemployment, disability, child care, & sick/maternity/parental leave

- Social safety nets may be unimportant for the 1%, but probably matter to 99% of the U.S. population – at least knowing the nets are there, even if not used
Hypothesis: Single-parent households?

- High % of children raised in 1-parent households
- But Sweden, France and Denmark have higher rates yet better health

Hypothesis: Early childhood education?

- Only 2 peer countries have lower % in pre-school
- Huge effects on physical, cognitive, and emotional development, with later health consequences

Hypothesis: Education?

- Good high-school graduation rates but
  - 11\textsuperscript{th} of 17 on bachelor’s degrees
- 1 in 7 adults cannot read
- Uneven test performance
  - Poor/mediocre on OECD tests in reading, science, & math at age 15 (since the 1960s)
Hypothesis: Stress?

- Poverty, inequality, and lack of social safety nets → stress
- Work/family conflict could contribute to our health disadvantage (for the 99%)
- Health now may reflect stressful conditions earlier in life

Find a way to keep your stress level down. What works for me is making a ton of money & having practically free health care.
Hypothesis: Occam’s razor

- Multiple causes, with effects contingent on multiple factors varying over time, and across and within countries
- An underlying theme?
  - A culture that values individualism, individual freedom, and survival of the most fortunate over social solidarity...?
  - What creates culture?

Image: http://upload.wikimedia.org/wikipedia/commons/7/70/William_of_Ockham.png