U.S. HEALTH IN INTERNATIONAL PERSPECTIVE: SHORTER LIVES, POORER HEALTH

Grantmakers in Health
April 10, 2013
Motivations

- Prior NRC (2011) report “Explaining Divergent Levels of Mortality in High-Income Countries” (sponsored by NIA)
- Current NRC/IOM (2013) report looking at morbidity and mortality at all ages (sponsored by OBSSR and others)
- Value of cross-national perspective for understanding US health
Overview of Comparison Group

- 17 comparable high-income nations

- Australia, Austria, Canada, Denmark, Finland, France, Germany, Italy, Japan, Norway, Portugal, Spain, Sweden, Switzerland, the Netherlands, the United Kingdom, and the United States
The Health of the Nation: Poor Value for Money

Life Expectancy and Health Care Spending in OECD Countries (2008)

Life expectancy at birth, years vs. total expenditure on health per capita, US$ PPP

1. Or latest year available.
Source: OECD Health Data 2010.
Mortality Rates in Peer Countries, 2008

Non-communicable diseases

Communicable diseases
## Higher Mortality Rates and Lower Life Expectancy

### Mortality Rates by Cause of Death

<table>
<thead>
<tr>
<th>Cause of Death</th>
<th>Mortality Rate (per 100,000)</th>
<th>U.S. Death Rates Above Average</th>
<th>Peer Countries (N = 16) Unweighted Mean</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiovascular diseases$^a$</td>
<td>155.7</td>
<td>133.6</td>
<td>97.4-174.9</td>
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<tr>
<td>Neuropsychiatric conditions$^b$</td>
<td>39.2</td>
<td>28.1</td>
<td>7.2-48.4</td>
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<tr>
<td>Respiratory disease</td>
<td>34.3</td>
<td>21.0</td>
<td>12.7-34.4</td>
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<tr>
<td>Infectious and parasitic diseases</td>
<td>15.4</td>
<td>7.7</td>
<td>4.4-17.5</td>
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<tr>
<td>Diabetes mellitus</td>
<td>15.2</td>
<td>10.2</td>
<td>4.5-19.3</td>
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<tr>
<td>Genitourinary diseases$^c$</td>
<td>12.3</td>
<td>7.2</td>
<td>3.0-12.2</td>
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<tr>
<td>Endocrine disorders</td>
<td>7.1</td>
<td>4.2</td>
<td>1.6-8.1</td>
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<tr>
<td>Congenital anomalies</td>
<td>4.3</td>
<td>3.3</td>
<td>2.6-4.0</td>
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<tr>
<td>Musculoskeletal diseases$^d$</td>
<td>2.9</td>
<td>2.4</td>
<td>1.2-3.5</td>
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<tr>
<td>Nutritional deficiencies</td>
<td>1.0</td>
<td>0.7</td>
<td>0.1-2.0</td>
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<tr>
<td>Skin diseases</td>
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<td>0.6</td>
<td>0.1-1.5</td>
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<tr>
<td>Maternal conditions</td>
<td>0.4</td>
<td>0.1</td>
<td>0.0-0.2</td>
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<tr>
<td>Perinatal conditions</td>
<td>7.4</td>
<td>3.7</td>
<td>1.3-5.9</td>
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<tr>
<td>Unintentional injuries$^e$</td>
<td>35.5</td>
<td>20.4</td>
<td>13.7-38.6</td>
<td></td>
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<tr>
<td>Intentional injuries</td>
<td>17.3</td>
<td>11.4</td>
<td>5.6-20.2</td>
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</table>

### Life Expectancy

<table>
<thead>
<tr>
<th>Country</th>
<th>Males LE</th>
<th>Rank</th>
<th>Country</th>
<th>Females LE</th>
<th>Rank</th>
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</thead>
<tbody>
<tr>
<td>Switzerland</td>
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<td>1</td>
<td>Japan</td>
<td>85.98</td>
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<td>Australia</td>
<td>79.27</td>
<td>2</td>
<td>France</td>
<td>84.43</td>
<td>2</td>
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<tr>
<td>Japan</td>
<td>79.20</td>
<td>3</td>
<td>Switzerland</td>
<td>84.09</td>
<td>3</td>
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<tr>
<td>Sweden</td>
<td>78.92</td>
<td>4</td>
<td>Italy</td>
<td>84.09</td>
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<tr>
<td>Italy</td>
<td>78.82</td>
<td>5</td>
<td>Spain</td>
<td>84.03</td>
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<tr>
<td>Canada</td>
<td>78.35</td>
<td>6</td>
<td>Australia</td>
<td>83.78</td>
<td>6</td>
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<tr>
<td>Norway</td>
<td>78.25</td>
<td>7</td>
<td>Canada</td>
<td>82.95</td>
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<td>Netherlands</td>
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<td>8</td>
<td>Sweden</td>
<td>82.95</td>
<td>7</td>
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<tr>
<td>Spain</td>
<td>77.62</td>
<td>9</td>
<td>Austria</td>
<td>82.86</td>
<td>9</td>
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<tr>
<td>United Kingdom</td>
<td>77.43</td>
<td>10</td>
<td>Finland</td>
<td>82.86</td>
<td>9</td>
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<td>France</td>
<td>77.41</td>
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<td>Norway</td>
<td>82.68</td>
<td>11</td>
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<td>Austria</td>
<td>77.33</td>
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<td>Germany</td>
<td>82.44</td>
<td>12</td>
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<td>77.18</td>
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<td>Netherlands</td>
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<tr>
<td>Denmark</td>
<td>76.13</td>
<td>14</td>
<td>Portugal</td>
<td>82.19</td>
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<td>Portugal</td>
<td>75.87</td>
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<td>United Kingdom</td>
<td>81.68</td>
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<td>Finland</td>
<td>75.86</td>
<td>16</td>
<td>United States</td>
<td>80.78</td>
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<tr>
<td>United States</td>
<td>75.64</td>
<td>17</td>
<td>Denmark</td>
<td>80.53</td>
<td>17</td>
</tr>
</tbody>
</table>
Changes in Life Expectancy over Time

Life Expectancy at Birth - Male

Life Expectancy at Birth - Female

Probability of Survival to Age 50 - Male

Probability of Survival to Age 50 - Female
Low Life Expectancy at Every Age

For either sex, the US rank is never better than 15th out of 17 until age 75.
Low Life Expectancy for Non-Hispanic Whites

Ranking of Mortality of Non-Hispanic Whites by Age Group vs. Peer Countries, 2006-2008

For either sex, the US rank is never ranked higher than 16th out of 17 until age 55.
BMI and Obesity

The US has the highest prevalence of adult obesity among all OECD countries, a position it has held for decades.

As of 2009, the prevalence of obesity in the US was twice the OECD average.
Diabetes

- As of 2010, the US had close to the highest prevalence of diabetes in adults aged 20-79 in all peer countries (and all OECD countries except Mexico).
Infant Mortality in Peer Countries

- From 2005-2009, the US had the highest infant mortality rate of the peer countries and the 9th highest in the OECD.
- Well-educated non-Hispanic whites and mothers have higher infant mortality rates in the US than those in other countries.
- Since the 1970s, US infant mortality has not kept pace with declines achieved by other countries.
  - US infant mortality declined by 20% from 1990-2010, but comparable high-income countries halved their rates.
Other Birth Outcomes

- The US prevalence of low birth weight is the second highest of the peer countries.
- US stillbirths and perinatal mortality rates are also among the highest.
- A 2012 analysis found that the US preterm birth rate (12%) was comparable to that of sub-Saharan Africa.
US Children’s Health Disadvantage

Children in the US have the **highest probability of dying before age 5** of any of the peer countries.

- In 2004, 11% of US deaths before age 5 were from injuries.
- In 2006, the US had the highest rate of child deaths due to negligence, maltreatment, or physical assault.
- The violent death rate among US boys aged 1-4 has exceeded the OECD average since the late 1960s.
- The US is ranked 24th of 30 (OECD) and 21 of 21 (UNICEF) on selected measures of children’s well-being.
US Adolescent Health Disadvantage

- Adolescent obesity rates in the US far exceed those in comparable nations.
- In 2010, the US had the 5th highest prevalence of diabetes among children ages 0-14 in peer countries.
- Among teens aged 15-19 in 2005, the US had the highest all-cause mortality rate among peer countries.
Adolescent Sexual Health

- The US has the highest teen pregnancy rate, nearly 3.5 times the average of peer countries in 2010.
- The US has a higher prevalence of syphilis, gonorrhea, and chlamydia among 15-19 year-olds than any other high-income country that provided comparison data.
- Among high-income countries, the US has the highest prevalence of HIV infection at ages 15-24.
Among adolescents aged 15-19 in 2005, the US had the highest injury mortality rate.

Since the 1950s, transport injury mortality at ages 15-24 has been higher in the US than in peer countries.

Since the 1960s, the US has had higher non-transport injury mortality among children aged 5-9, and especially among males aged 10-19.
Youth Mortality from Violence

Since the 1950s, males aged 15-24 have been far more likely to die from violence in the US than in the peer group.

US males aged 15-19 are 5 times more likely to die from violence than those in other OECD countries.
Age 50 and Above

- Conditions more prevalent in the US among those age 50 and older
  - Obesity
  - Diabetes
  - Hypertension
  - Heart disease
  - Myocardial infarction
  - Stroke
  - Chronic lung disease
  - Asthma
  - Cancer
  - Arthritis
  - Activity limitations
Nine Areas of US Health Disadvantage

- Infant Mortality & Low Birth Weight
- Injuries & Homicides
- Adolescent Pregnancy & STIs
- HIV & AIDS
- Drug-related Deaths
- Obesity & Diabetes
- Cardiovascular Disease
- Chronic Lung Disease
- Disability
Structure of the Report
Determinants of Health

Health Systems
- Insurance and access barriers
- Weak primary care
- Coordination and errors

The Environment
- Physical environment
- Social environment

Social Factors
- Low income/poverty
- Education
- Social mobility
- Incarceration
- Single-parent households

Individual Behaviors
- Caloric intake
- Drug use
- Sexual practices
- Driver safety
- Firearm possession
Policies and Social Values

Research Recommendations

- **Recommendation 1:** NIH and NCHS should join with an international partner to improve the quality and consistency of data sources available for cross-national health comparisons.

- **Recommendation 2:** NIH and other research funding agencies should support the development of more refined methods and study designs for cross-national health research.

- **Recommendation 3:** NIH and other research funding agencies should commit to a coordinated portfolio of investigator-initiated and invited research devoted to understanding the factors responsible for the U.S. health disadvantage and potential solutions, including lessons that can be learned from other countries.
Policy Recommendations

- **Recommendation 4**: Intensify efforts to achieve established national health objectives that are directed at the specific disadvantages documented in this report and that use strategies and approaches that reputable review bodies have identified as effective.

- **Recommendation 6**: Commission a review of the available evidence on (1) the effects of policies on the areas in which the US has an established health disadvantage, (2) how these policies have varied over time across high-income countries, and (3) the extent to which these policy differences may explain cross-national health differences.
Recommendation for Philanthropy

- **Recommendation 5:** The philanthropy and advocacy communities should organize a comprehensive media and outreach campaign to inform the general public about the U.S. health disadvantage and to stimulate a national discussion about its implications for the nation.
Next Steps

- Disseminate widely
- Stimulate a national conversation
- Conduct additional research
- Support sound policies
Contact Information

- Steven H. Woolf, MD, MPH
  Director, VCU Center on Human Needs
  Virginia Commonwealth University
  swoolf@vcu.edu

- Laudan (Laudy) Aron, MA
  Senior Research Associate, Urban Institute
  202-261-5369, LAron@urban.org