Falling Behind: US is Playing the Game of Health Without a Scoreboard

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CSTE June 5, 2012
AGENDA

Population Health Quiz
Why keep score?

Why is our health status so poor
  – Inequality is killing us
  – First 1000 days matter most for our health

Challenge to applied epidemiologists
  – Make comparisons with healthier nations
  – Inform the public
  – Push policies
POP HEALTH QUIZ

True False

A 15 year old girl in the US has a smaller chance of dying before reaching age 60 than a similarly aged girl in Sri Lanka.

During the period of 1987 to 2007 life expectancy for women declined in almost 30% of US counties (which was not so for the previous 20 years).

Maternal mortality in the US has increased 50% over the last 15 years.
A 15 year old girl in the US has a smaller chance of dying before reaching age 60 than a similarly aged girl in Sri Lanka.
Sri Lanka US
Adult Female Mortality 1970-2010
<table>
<thead>
<tr>
<th>POP HEALTH QUIZ</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>True</strong></td>
</tr>
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</table>

A 15 year old girl in the US has a smaller chance of dying before reaching age 60 than a similarly aged girl in Sri Lanka.  

X
During the period of 1987 to 2007 life expectancy for women declined in almost 30% of US counties (which was not so for the previous 20 years).

Female

Male

Change in years of life expectancy in US counties from 1987 to 2007
During the period of 1987 to 2007 life expectancy for women declined in almost 30% of US counties (which was not so for the previous 20 years).
Maternal mortality in the US has increased 50% over the last 15 years.
Australia, Canada, Japan, Sweden
US Maternal Mortality 1970-2010
Maternal mortality in the US has increased 50% over the last 15 years.
How healthy is the US?

**Health Olympics**

<table>
<thead>
<tr>
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<th>Gold</th>
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<th>21-25</th>
<th>26-30</th>
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</table>
US WOMEN YEARS LEFT AT AGE 50

Glei et al. 2010
Maternal Mortality Olympics (2008)

Deaths/100,000 births

Countries: Italy, Luxembourg, Austria, Israel, Canada, Japan, Germany, Hungary, Finland, Switzerland, Norway, United Kingdom, New Zealand, Serbia, Belgium, France, Bosnia & Herzegovina, Qatar, Singapore, United States, Latvia, Montenegro.
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</table>
How healthy is the US?

Health Olympics

Number one

1-5
6-10
11-15
Playing Game of Health without a scoreboard
Health
not a goal in the USA

Desired End Points?
Life, Liberty, Pursuit
Health Inequalities (poorer people have poorer health)

Early Life: critical for adult health
Survival Ratio on the Titanic

- Crew: 24%
- 3rd Class: 25%
- 2nd Class: 40%
- 1st Class: 60%
US MORTALITY RATES BY ZIP CODE INCOME

Wilkinson & Pickett 2009 Spirit Level
THE SPIRIT LEVEL
Why Greater Equality Makes Societies Stronger

RICHARD WILKINSON and KATE PICKETT
Foreword by Robert B. Reich
Health and Social Problems are Worse in More Unequal Countries

Index of:
- Life expectancy
- Math & Literacy
- Infant mortality
- Homicides
- Imprisonment
- Teenage births
- Trust
- Obesity
- Mental illness – incl. drug & alcohol addiction
- Social mobility

INEQUALITY KILLS
## Deaths attributable to excess income inequality

<table>
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<tr>
<th>Country</th>
<th>Gini</th>
<th>Excess deaths</th>
<th>Fraction of estimated 14 million averted deaths (%)</th>
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<td>Total</td>
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(9.6% of total OECD population)

Kondo et al. 2009
Mechanisms through which inequality impacts health
Early life lasts a lifetime
Womb to Tomb

First 1000 days

9 months
- maternal grandmother

First two years outside

HALF of adult health programmed
What to do?

Inform the public

Make comparisons with healthier nations

Level the playing field

Support early life
What Determines Health?

Key Determinants
- Income and Social Status
- Social Support Networks
- Education and Literacy
- Employment/Working Conditions
- Social Environments
- Physical Environments
- Personal Health Practices and Coping Skills
- Healthy Child Development
- Biology and Genetic Endowment
- Health Services
- Gender
- Culture
Do we want health or health care?
Health...
You will be surprised
Poverty = poor health
Economic Inequality, the Occupy Movement, & Public Health

Brown Bag University
March 19, 2012
What to do?

Inform the public

Make comparisons with healthier nations
  – How many of you do this to policy makers now?

Level the playing field

Support early life
FEMALE county life expectancy 2007

Female Life Expectancy SHELBY cty TENNESSEE

2007 77.70 years
Closest Countries
BELOW: Belize, Ecuador, Guam, Lithuania, Sri Lanka
ABOVE: Aruba, Bahrain, Bosnia & Herzegovina, Hungary, Oman
What to do?

Inform the public

Make comparisons with healthier nations

Level the playing field

Support early life
Leveling playing field

INCREASE GOVERNMENT REVENUE

Corporate: Individual Taxes

$1.50: $1 1950s,
$0.25: $1 now

Individual taxes (1950s 91% marginal rate)

Raise cap on social security
Leveling playing field

SOCIAL SPENDING

Early life focus
Child Poverty
Before and after taxes/transfers
USA Canada

Measuring child poverty
New league tables of child poverty in the world’s rich countries
What to do?

Inform the public

Make comparisons with healthier nations

Level the playing field

Support early life
  – Antenatal, maternal leave Washington 2009
Mapping Paid Maternity Leave: How many weeks do other nations provide compared to the US?

Source: NATCHMASTER.com
Realistic issues

Collect

Analyze
– data on various health, ses & social measures
– Health disparities

Report comparing other areas, countries

Highlight socioeconomic gradient
– Focus on income-health
  Not income inequality – poor health
The Health Disparities of Vermonters • 2010

Smoking & Income
% of Vermont adult smokers, by Federal Poverty Level • 2008

lower income  higher income

37%
21%
15%
9%

< 1¼ times poverty level
1¼ - 2¼ times poverty level
2½ - 3½ times poverty level
> 3½ times poverty level

Smoking during Pregnancy
% pregnant Vermonters who smoked during pregnancy

low income women (WIC participants)
women not participating in WIC

36% 36%
8% 5%

PRIMORDIAL
PREVENTION
Making Health a goal in the USA

Desired End Points
Long Healthy Life
The System is the Solution