Social Determinants of Health

Michael Marmot
UCL
Chair of CSDH

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MORTALITY OVER 25 YEARS ACCORDING TO LEVEL IN THE OCCUPATIONAL HIERARCHY: WHITEHALL

(Marmot & Shipley, 1996)
## % Probability of Dying Between Ages 15 and 60 (males)

<table>
<thead>
<tr>
<th>Country</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesotho</td>
<td>84.5</td>
</tr>
<tr>
<td>Russia</td>
<td>48.5</td>
</tr>
<tr>
<td>Bolivia</td>
<td>24.8</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>23.2</td>
</tr>
<tr>
<td>Colombia</td>
<td>22.6</td>
</tr>
<tr>
<td>Pakistan</td>
<td>22.2</td>
</tr>
<tr>
<td>Sweden</td>
<td>8.2</td>
</tr>
</tbody>
</table>

OUTLINE

- The Challenge
- Conceptual Framework
- Explanations
- Linking poverty and the gradient
- Integrating knowledge for action
ONE APPROACH TO HEALTH INEQUALITIES IN RICH AND POOR COUNTRIES
OUTLINE

- The Challenge
- **Conceptual Framework**
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Social Determinants of Health
The simplified framework

The causes of the causes
Social Context

Social Stratification
*Differential access to ‘capital’ by e.g. education, class, sex, ethnicity*

Differential Exposures & Vulnerabilities

VULNERABILITIES:
- Material
- Psychosocial
- Behavioural
- Constitutional

Average & Differential Health Impact

Differential Health Consequences
OUTLINE

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EXPLANATIONS:

- “IT’S THE NATURAL ORDER”
TRENDS IN LIFE EXPECTANCY

<table>
<thead>
<tr>
<th>Region</th>
<th>1970-75</th>
<th>2000-2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arab States</td>
<td>52.1</td>
<td>66.9</td>
</tr>
<tr>
<td>East Asia and Pacific</td>
<td>45.8</td>
<td>50.1</td>
</tr>
<tr>
<td>Latin America and Caribbean</td>
<td>46.1</td>
<td>60.5</td>
</tr>
<tr>
<td>South Asia</td>
<td>61.1</td>
<td>61.1</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>63.2</td>
<td>71.7</td>
</tr>
<tr>
<td>CEE and CIS</td>
<td>64.8</td>
<td>68.1</td>
</tr>
<tr>
<td>OECD</td>
<td>70.3</td>
<td>77.6</td>
</tr>
</tbody>
</table>

Human Development Report 2005
The widening trend in mortality by education in Russia, 1989-2001

45 p20 = probability of living to 65 yrs when aged 20 yrs

Source: Murphy et al, AJPH, 96, 1293-9, 2006
Mortality for non-manual and manual workers in nine European countries
Ranked by absolute level of mortality of manual workes; age groups 45-59
MEDICAL CARE?
BENEFITS FROM GOVERNMENT HEALTH SERVICE EXPENDITURE, AVERAGE FOR 21 COUNTRIES

*Number of countries where lowest quintile receives less, the same, or more benefit compared with the highest income quintile*

Source: Reaching the Poor, eds: Gwatkin, D.R. Wagstaff, A. Yazbeck A.S. The World Bank, 2005
EXPENDITURE ON MEDICAL CARE PER CAPITA IN US AND UK

- UNITED STATES:
  - US$ 5274

- UNITED KINGDOM:
  - US$ 2164 (adjusted for purchasing power)

(Human Development Report 2005)
HEALTH DIFFERENCES BETWEEN ENGLAND AND THE US

55-64 year olds

% Prevalence

- Heart disease
- Diabetes
- Cancer

Source: Banks, Marmot, Oldfield and Smith; JAMA 2006
### Probability at birth of surviving to age 65 (selected countries)

<table>
<thead>
<tr>
<th>HDI rank</th>
<th>Country</th>
<th>Male (rank)</th>
<th>Female (rank)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Iceland</td>
<td>87.4 (1)</td>
<td>91.4 (5)</td>
</tr>
<tr>
<td>11</td>
<td>Japan</td>
<td>85.7 (4)</td>
<td>93.3 (2)</td>
</tr>
<tr>
<td>22</td>
<td>Hong Kong</td>
<td>86 (2)</td>
<td>93.7 (1)</td>
</tr>
<tr>
<td>15</td>
<td>UK</td>
<td>83.6</td>
<td>89.4</td>
</tr>
<tr>
<td>52</td>
<td>Cuba</td>
<td>80.0</td>
<td>86.2</td>
</tr>
<tr>
<td>37</td>
<td>Chile</td>
<td>79.1</td>
<td>88.5</td>
</tr>
<tr>
<td>10</td>
<td>USA</td>
<td>79.1 (33)</td>
<td>86.7 (36)</td>
</tr>
</tbody>
</table>

Human Development Report 2005
EXPLANATIONS:
POVERTY IN THE POOR COUNTRIES
&
BAD BEHAVIOUR IN THE RICH?
(Source: Angus Deaton)
YES, BUT...
**GDP PER CAPITA AND LIFE EXPECTANCY: SELECTED COUNTRIES**

<table>
<thead>
<tr>
<th>Country</th>
<th>GDP PER CAPITA (PPP US$)</th>
<th>LIFE EXPECTANCY AT BIRTH (MALES)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRI LANKA</td>
<td>4,390</td>
<td>71.7</td>
</tr>
<tr>
<td>COSTA RICA</td>
<td>9,481</td>
<td>76.0</td>
</tr>
<tr>
<td>RUSSIA</td>
<td>9,902</td>
<td>58.9</td>
</tr>
<tr>
<td>CHILE</td>
<td>10,874</td>
<td>75.1</td>
</tr>
</tbody>
</table>

*Source: Human Development Report 2006*
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The causes of the causes
COMPARISON OF SMOKING PREVALENCE BETWEEN LOW AND HIGH SOCIOECONOMIC GROUPS

SMOKING RATE RATIO BETWEEN LOW AND HIGH SOCIOECONOMIC GROUPS

Bobak et al in ‘Tobacco control in developing countries’ ed: Jha & Chaloupka, 2000
Technology transfer?
Yes, but...
RICHER UNDERSTANDING OF POVERTY
OUTLINE

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EMPOWERMENT

– Material
– Psychosocial
– Political
SELF-REPORTED JOB CONTROL AND CHD INCIDENCE WHITEHALL MEN AND WOMEN

- Adjusted age, sex, length of follow up
- + effort/reward imbalance
- + grade, coronary risk factors, negative affect

Bosma et al, 1998
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Commission on Social Determinants of Health
2005 - 2008
Set up by the World Health Organisation

- Launched Chile March 2005
- Interim Statement July 2007
- Final Report and recommendations mid-2008

www.who.int/social_determinants
Knowledge into action:
Create the social conditions
for empowerment
Net financial flows, by region and all developing and transition economies, 1993-2005

Source: United Nations Dept. of Economic and Social Affairs, 2006. 2005 figures are preliminary. “Sub-Saharan Africa” excludes Nigeria, South Africa 

(CSDH GKN)
Hunger & malnutrition lead to …

- reduced capacity to access markets & resources
- reduced school attendance, learning capacity
- less education & employment for women & girls
- weakened immune systems, rising child mortality
- impaired maternal and infant health
- risky survival strategies, spread of HIV/AIDS, malaria etc.
- unsustainable use of natural resources

 Adapted from: FAO: The State of Food Insecurity in the World 2005
The Nutrition Transition

Undernutrition and obesity by the level of GDP per capita

WHO 2006
Impact of better education and nutrition for women on nutrition and health for families in Kerala, India

Better education and nutrition for women

- Women 15-49 with no education
- Underweight women (BMI below 18.5)

Improved nutrition and health for families

- Infant mortality
- Stunted children

National Family Health Survey, India (NFHS-3: 2005-2006)
“The success of an economy and of a society cannot be separated from the lives that the members of the society are able to lead... we not only value living well and satisfactorily, but also appreciate having control over our lives.”

Amartya Sen, Development as Freedom (1999)
NUMBER OF MAZES SOLVED IN 15 MIN:
INDIAN CHILDREN 11-12 YEARS

Caste announced?

NO

YES

(Source: Hoff & Pandey, 2004)
MAKING A DIFFERENCE TO PEOPLE’S LIVES: SEWA

- Vegetable sellers in Ahmedabad
- Micro credit
- Vegetable wholesalers
- Legal right to sell vegetables
- Child care provision
- Health care provision
- Housing
- Pensions
Commission on Social Determinants of Health

Bringing people and organisations together to create a global movement

www.who.int/social_determinants/en
A world where social justice is taken seriously
“Rise up with me

... against the organisation of misery.”

From: The Banner by Pablo Neruda