Globalization’s Challenges to Health Research

Ronald Labonté
Canada Research Chair
Globalization/Health Equity
Institute of Population Health
Professor, Faculty of Medicine
University of Ottawa
rlabonte@uottawa.ca
Three points

1. Shifting from international to global health framing
2. Narrative syntheses and reasoned judgement in determining weight of evidence
3. Importance of stories in policy-communication
International or Global Health?

- International = concern over health of poor in other countries (burden of disease)
- Global = recognition of inherently global health issues, of interdependencies
Inherently Global Health Issues

GLOBALIZATION AND HEALTH: SIMPLIFIED PATHWAYS AND ELEMENTS

Political Systems and Processes → Pre-Existing Endowments

Macroeconomic Policies
Intermediary Global Public Goods

Domestic Policy Space/Policy Capacity
Domestic Policies (e.g. economics, labour, food security, public provision, environmental protection)

Local Government Policy Space/Policy Capacity
Civil Society Organizations

Service and Program Access
Geographic Disparities
Community Capacities
Urbanization

Current Household Income/Distribution
Health Behaviours
Health, Education, Social Expenditures

Health Outcomes
GLOBALIZATION AND HEALTH: SIMPLIFIED PATHWAYS AND ELEMENTS

Environmental Pathways

- Current Household Income/Distribution
  - Health Behaviours
  - Health, Education, Social Expenditures

Domestic Policy Space/Policy Capacity

- Domestic Policies (e.g. economics, labour, food security, public provision, environmental protection)

Local Government Policy Space/Policy Capacity

- Civil Society Organizations

Service and Program Access

- Geographic Disparities
- Community Capacities
- Urbanization

Intermediary Global Public Goods

- Macroeconomic Policies
- Trade Agreements and Flows
- Official Development Assistance

Health, Education, Social Expenditures

Political Systems and Processes

Pre-Existing Endowments

Health Behaviours

Health Outcomes

Macroeconomic Policies

Domestic Policies (e.g. economics, labour, food security, public provision, environmental protection)
GLOBALIZATION AND HEALTH: SIMPLIFIED PATHWAYS AND ELEMENTS

Political Systems and Processes
Pre-Existing Endowments

Macroeconomic Policies
Intermediary Global Public Goods

Domestic Policy Space/Policy Capacity
Domestic Policies (e.g. economics, labour, food security, public provision, environmental protection)

Local Government Policy Space/Policy Capacity
Civil Society Organizations

Service and Program Access
Geographic Disparities
Community Capacities
Urbanization

Current Household Income/Distribution
Health Behaviours
Health, Education, Social Expenditures

HEALTH OUTCOMES
GLOBALIZATION AND HEALTH: SIMPLIFIED PATHWAYS AND ELEMENTS

- Political Systems and Processes
- Pre-Existing Endowments

- Macroeconomic Policies
- Intermediary Global Public Goods

- Domestic Policy Space/Policy Capacity
  - Domestic Policies (e.g., economics, labour, food security, public provision, environmental protection)

- Local Government Policy Space/Policy Capacity
  - Civil Society Organizations

- Service and Program Access
  - Geographic Disparities
  - Community Capacities
  - Urbanization

- Current Household Income/Distribution
  - Health Behaviours
  - Health, Education, Social Expenditures

- HEALTH OUTCOMES

Environmental Pathways

- Macroeconomic Policies
  - Trade Agreements and Flows
  - Official Development Assistance

Domestic Policies (e.g., economics, labour, food security, public provision, environmental protection)
Three points

1. Shifting from international to global health framing
2. **Narrative syntheses and reasoned judgement in determining weight of evidence**
3. Importance of stories in policy-communication
Knowledge Network Themes

- Women/gender
- Priority Public Health Diseases
- Early Child Development
- Urban Settings
- Social Exclusion
- Employment conditions
- Health systems
- Evidence & Measurement

Globalization

Health Equity
Knowledge Network Responsibilities

- Synthesize knowledge about how the determinant(s) of their KN affect health outcomes
- Globalization accepted as a ‘determinant of determinants’
- Attend to equity in outcomes (gender, economic, geographic, cultural)
- Use a plurality of sources and forms of evidence
- Identify case examples of programs/policies that enhanced health equity (if such exist)
- Distil the evidence base to key policy recommendations
Multidisciplinary teams:

- Globalization’s effects are best described through a narrative synthesis that integrates several kinds of findings
- Description of national and international policy context
- Country- or region-specific case studies, using a variety of methods
- Evidence from clinical or epidemiological studies
- Ethnographic research, field observations and other accounts of experience ‘on the ground’
- Based on ‘path-dependent’ modeling
Explicit recognition of uncertainty:

- Rarely possible to state conclusions with degree of certainty possible in laboratory situations or controlled trials
- “The further upstream we go in our search for causes,” and globalization is the quintessential upstream variable, the greater the need to rely on “observational evidence and judgment in formulating policies to reduce inequalities in health” (Marmot, 2000)
- Reasoned argument of weight of evidence rather than reliance on statistical norms of probability
- Inherent values-based of reasoned argument: global health equity as the policy goal
Three points

1. Shifting from international to global health framing
2. Narrative syntheses and reasoned judgement in determining weight of evidence
3. Importance of stories in policy-communication
Statistics are the belief in the ability of people to be profoundly, irrevocably and urgently moved by a $p < .05$ 
*(Belial’s Glossary of Public Health)*

Statistics are people with the tears washed off  
*(Victor Sidel, American Public Health Association)*

There are lies, damn lies, and then there are statistics  
*(Mark Twain)*
\[
\frac{\partial y_{ct}}{\partial X_{ct}} = \frac{\beta_1 \cdot \alpha_2 + \beta_2}{1 - (\rho + \beta_1 \cdot \alpha_2)}
\]
The Globalization is Good for Us Story

Liberalization ➔ Increases Growth
Increased Growth ➔ Increases Wealth
Increased Wealth ➔ Decreases Poverty
Decreased Poverty ➔ Increases Health
Increased Health ➔ Increases Growth
\[ y_{it} = \alpha + x_{it} \cdot \beta + u_i + \varepsilon_{it} \]
<table>
<thead>
<tr>
<th>Region</th>
<th>OECD</th>
<th>TRANS</th>
<th>USSR</th>
<th>E.Asia</th>
<th>China</th>
<th>LAC</th>
<th>MENA</th>
<th>India</th>
<th>S.Asia</th>
<th>SSA</th>
<th>WORLD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Policy driven LEB changes</strong></td>
<td>0.18</td>
<td>-1.11</td>
<td>-3.26</td>
<td>-0.07</td>
<td>-0.75</td>
<td>-2.98</td>
<td>1.12</td>
<td>-1.03</td>
<td>-1.28</td>
<td>-5.23</td>
<td>-1.23</td>
</tr>
<tr>
<td>Log GDP/c</td>
<td>-0.43</td>
<td>-1.91</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-0.10</td>
</tr>
<tr>
<td>Log GDP/c*Gini income</td>
<td>-0.08</td>
<td>-0.64</td>
<td>8.86</td>
<td>1.76</td>
<td>-0.94</td>
<td>2.88</td>
<td>1.67</td>
<td>0.57</td>
<td></td>
<td></td>
<td>2.65</td>
</tr>
<tr>
<td>Gini of income inequality</td>
<td>-0.80</td>
<td>-0.07</td>
<td>-0.12</td>
<td>-0.61</td>
<td>-6.13</td>
<td>-3.03</td>
<td>-2.12</td>
<td>-2.52</td>
<td>-1.33</td>
<td>-0.98</td>
<td>-2.52</td>
</tr>
<tr>
<td>Intra-period Δ Gini &gt;4 points</td>
<td>0.00</td>
<td>-0.58</td>
<td>-1.60</td>
<td>-0.09</td>
<td>0.00</td>
<td>-0.03</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>-0.13</td>
<td>-0.12</td>
</tr>
<tr>
<td>GDP/c Volatility</td>
<td>-0.25</td>
<td>-0.72</td>
<td>-0.49</td>
<td>-0.31</td>
<td>-0.69</td>
<td>-0.71</td>
<td>-0.43</td>
<td>-0.59</td>
<td>-0.30</td>
<td>-0.08</td>
<td>-0.47</td>
</tr>
<tr>
<td>Log physicians per 1000/Log GDP/c</td>
<td>-0.11</td>
<td>0.02</td>
<td>0.37</td>
<td>1.12</td>
<td>-1.34</td>
<td>0.25</td>
<td>0.74</td>
<td>-0.79</td>
<td>-0.36</td>
<td>-0.49</td>
<td>-0.34</td>
</tr>
<tr>
<td>Migrant stock/population</td>
<td>0.09</td>
<td>no data</td>
<td>no data</td>
<td>0.28</td>
<td>0.00</td>
<td>0.01</td>
<td>0.27</td>
<td>0.00</td>
<td>-0.12</td>
<td>0.06</td>
<td>0.05</td>
</tr>
<tr>
<td>DPT immunisation coverage</td>
<td>0.13</td>
<td>no data</td>
<td>no data</td>
<td>0.64</td>
<td>-0.41</td>
<td>-0.05</td>
<td>-0.26</td>
<td>-0.21</td>
<td>-0.66</td>
<td>-3.84</td>
<td>-0.49</td>
</tr>
<tr>
<td>Female Education</td>
<td>0.24</td>
<td>0.00</td>
<td>-0.16</td>
<td>-0.66</td>
<td>-0.71</td>
<td>-1.32</td>
<td>3.95</td>
<td>0.16</td>
<td>-0.21</td>
<td>-0.33</td>
<td>-0.12</td>
</tr>
<tr>
<td>Cigarette smoking/c</td>
<td>0.11</td>
<td>no data</td>
<td>no data</td>
<td>no data</td>
<td>no data</td>
<td>no data</td>
<td>no data</td>
<td>no data</td>
<td>no data</td>
<td>no data</td>
<td>0.02</td>
</tr>
<tr>
<td>Alcohol consumption/c</td>
<td>0.84</td>
<td>0.00</td>
<td>0.00</td>
<td>0.19</td>
<td>0.00</td>
<td>0.21</td>
<td>-0.01</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.16</td>
</tr>
<tr>
<td>Age dependency ratio</td>
<td>n.a.</td>
<td>0.66</td>
<td>0.66</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>0.05</td>
</tr>
</tbody>
</table>

| **Shocks driven LEB changes**               | 1.27 | -0.31 | -0.31| 0.95   | 0.61  | 2.59 | 1.09 | 3.53  | 3.75   | -2.66| 1.25  |
| War and humanitarian conflicts              |      |       |      |        |       |      |      |       |        |      | 0.00  |
| Disasters                                   | 0.00 | 0.00  | 0.00 | 0.00   | -0.33 | -0.07| -0.07| 0.05  | 0.03   | 0.01 | -0.07 |
| HIV/AIDS                                    | 0.00 | 0.00  | 0.00 | 0.00   | 0.00  | 0.00 | 0.00 | -0.55 | -0.31  | -6.71| -0.78 |
| Technical progress in health field          | 1.27 | -0.31 | -0.31| 0.95   | 0.95  | 2.66 | 1.16 | 4.04  | 4.04   | 4.04 | 2.10  |

| Total LEB changes                           | 1.45 | -1.42 | -3.57| 0.88   | 0.20  | -0.32| 2.29 | 2.46  | 2.44   | -7.90| 0.02  |
The Globalization is Good for Some but Not for Others Story

- Worldwide life expectancy at birth (LEB) improved by 1.45 years since 1980, due to progress in health technology.

- Compared to a continuation of trends over the 1960 – 1980 period, however, globalization policy-driven changes reduced potential LEB gains by 1.23 years, due primarily to increases in income inequalities.

- Sub-Saharan African (SSA) and Latin American countries, the former USSR and countries in economic transition suffered the greatest LEB losses.
Every \[ y_{it} = \alpha + x_{it} \cdot \beta + u_i + \varepsilon_{it} \]

Tells a story, don’t it
The size of each circle relates to the population size of the relevant country.


Note that the main instances of countries which fall well below the trend are all ones suffering the most from the scourge of AIDS.
Gross annual national income per head by deciles (US$ at purchasing power parity)

For whom the world is flat?

© 2007 Bob Sutcliffe. Used with permission.
Global health = Share the wealth