Urban Malnutrition
A 21st Century Challenge

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The Hawksbeard plant has adapted to urban stress over the last 20 years: has the nutrition community?

http://www.pnas.org/content/105/10/3796
The world is urbanising fast

Source: Global Panel Report 2016
Diets and Food Systems in the 21st century
Stunting is lower in urban areas, but still high

Source: Global Nutrition Report 2016
Urbanization is driving the consumption of highly processed foods

Percentage of value of food consumed from different categories

- Own production
- Purchase: unprocessed
- Purchase: low processed
- Purchase: high processed

Source: Compiled by the authors, based on data in Tschirley et al. (2015)

Source: Global Panel Report 2016 Diets and Food Systems in the 21st century
Growth in the sales of processed foods is occurring almost exclusively outside high income countries

Source: Global Panel Report 2016 Diets and Food Systems in the 21st century

Source: Compiled by the authors, based on data from Baker (2016)

Note: HIC: High-income countries; UMIC: Upper-middle-income countries; LMIC: Lower-middle-income countries.
Trends in the numbers of men and women affected by obesity: 1980–2010

Source: NCD Risk Factor Collaboration (2016), Figure 8.

But urbanizing countries face a double burden

**Under-five stunting**
Ethiopia, Rwanda

Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Cameroon, Central African Republic, Chad, Comoros, Congo, Côte d’Ivoire, Democratic People’s Republic of Korea, Democratic Republic of the Congo, Djibouti, Eritrea, Gambia, Guinea, Guinea-Bissau, India, Indonesia, Kenya, Lao People’s Democratic Republic, Liberia, Madagascar, Malawi, Maldives, Mali, Mauritania, Mozambique, Myanmar, Nepal, Niger, Nigeria, Pakistan, Philippines, Sao Tome and Principe, Sierra Leone, Somalia, Sudan, Timor-Leste, Togo, Uganda, United Republic of Tanzania, Zambia, Zimbabwe

**Women’s anemia**
Ghana, Japan, Senegal, Sri Lanka, Thailand

**Adult overweight**
Albania, Armenia, Botswana, Ecuador, Egypt, Equatorial Guinea, Guatemala, Haiti, Iraq, Lesotho, Libya, Namibia, Papua New Guinea, Solomon Islands, South Africa, Swaziland, Syria, Tajikistan, Vanuatu, Yemen

Algeria, Azerbaijan, Barbados, Belarus, Belize, Bolivia, Bosnia and Herzegovina, Brunei Darussalam, Dominican Republic, El Salvador, Gabon, Georgia, Guyana, Iran, Jamaica, Jordan, Kazakhstan, Kuwait, Kyrgyzstan, Malaysia, Mongolia, Montenegro, Morocco, Oman, Panama, Republic of Moldova, Saint Lucia, Saudi Arabia, Serbia, Seychelles, Suriname, Tunisia, Turkey, Uzbekistan, Venezuela

Source: 2016 Global Nutrition Report, Table A1.1 (IFPRI, 2016a)
Most global burden of disease risk factors are linked to diet

Source: Global Burden of Disease Study 2013 Collaborators (2015), Figure 5
Note: The graph shows global disability-adjusted life years (DALYs) attributed to level 2 risk factors in 2013 for both sexes combined.
We need to think differently about urban spaces

<table>
<thead>
<tr>
<th>Rural</th>
<th>Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food from own consumption</td>
<td>Food through markets</td>
</tr>
<tr>
<td>More child care options</td>
<td>Fewer child care options</td>
</tr>
<tr>
<td>Traditional property rights</td>
<td>Few property rights</td>
</tr>
<tr>
<td>High levels of social capital</td>
<td>Low levels of social capital</td>
</tr>
<tr>
<td>Lower levels of inequality</td>
<td>High levels of inequality</td>
</tr>
<tr>
<td>Distant from powerful decision makers</td>
<td>Close to powerful decision makers, e.g. mayors</td>
</tr>
</tbody>
</table>
Even in low income countries, most people get food from the market.

Percentage of household value of food consumed by source of acquisition.

Source: Data compiled by the World Bank, LSMS team.
Consumer price trends 1990-2010 (UK, Mexico, Brazil, South Korea & China)

- fruits and vegetables
- highly-processed foods

Note: CH: China; KR: Republic of Korea; BR: Brazil; MX: Mexico; UK: United Kingdom
Source: Overseas Development Institute, Figure A, Wiggins and Keats (2015)
Business and Nutrition—we need to do better

How do you see the world?

- Business can do no wrong
- Silent majority trying to figure out when and how to engage with businesses to advance nutrition
- Business has no business in nutrition
Maximize nutrition “entering” the food value chain

**Input Supply**
- Lack of access to inputs (seeds, fertilizer, extension)
- Lack of knowledge of improved varieties, nutritious crops

**Production**
- Focus on women, farmers diversification, extension, insects
- Contamination, spoilage

**Post Harvest Storage**
- Fermentation, drying, fortification, product formulation (reduce salt, sugar, unhealthy fats)
- Nutrient losses during milling, combination with unhealthy ingredients

**Processing**
- School feeding programs, voucher schemes, targeting of vulnerable groups
- “Food deserts,” export/import impacts on prices and availability

**Distribution**
- Messaging on the importance of nutrition and benefits of certain foods
- Advertising campaigns for unhealthy foods, loss of small food retailers

**Marketing and Retail**
- Home fortification with MNP (fish powders), training in nutritious food preparation, time management, food preservation

**Consumption Food Utilization**

Minimize nutrition “exiting” the value chain

HLPE 2017 Report. Forthcoming
Can we do better in creating demand for healthy diets?
Solutions in urban contexts

Things that work in rural areas may also work in urban spaces, e.g.

• Food price subsidies
• Large scale food fortification

Things that work in rural areas but may not work in urban, e.g.

• Area based nutrition interventions
• Nutrition-sensitive homestead farming

Things that don’t work in rural areas but may work in urban, e.g.

• Regulation of street vendors
• Incentivise large scale food retailers
How much food is needed to feed the world in 2030?

What needs to happen to sustainably nourish the world now?

• New ways to create demand for healthy diets: public-private hybrids
• New ways to support businesses to meet that demand
• New ways for governments to create the environment for businesses to deliver this
The tradeoffs between a nutritious diet, energy and water use are not so straightforward

FIGURE 2.5: Indices of average energy use, blue-water footprint and greenhouse gas emissions per calorie of food for each food group, US data

Source: Tom, Fischbeck and Hendrickson (2015)

Note: A score of 100 represents the highest resource use and emissions per calorie. Scores were developed based on the weighted averages of energy use, blue-water footprint and greenhouse gas emissions per calorie estimates for comparable food types within each food group.

Conclusions

• We need to confront urban malnutrition
  • It is not going away
• Urban malnutrition ≠ Rural malnutrition
  • It is different
• Businesses are central
  • To urban problems—and to the solutions
• New “policymakers” will be important
  • supermarket procurement officers
  • social media leaders
  • city mayors
Thank You