The Global Obesity Epidemic in Children

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Worldwide 10% of school-age children are overweight or obese by IOTF definition

*Overweight prevalence in women: 45.6% 72.6% 28.5%

Both low and high birthweight are associated with adult overweight

Stunting at 3 y in Guatemalan children associated with waist-to-hip ratio in adulthood
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Health consequences include:
- Metabolic syndrome (right)
- Early age at menarche (below)
- Diabetes

Social consequences of obesity in US children are well documented (e.g., below), but little is known about cultures in low-income countries.

Table 1: Prevalence (and CI95) of selected conditions among 6-year-old children, classified as overweight

<table>
<thead>
<tr>
<th>Condition</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 2 diabetes</td>
<td>0.1%</td>
</tr>
<tr>
<td>Diabetes (type 1)</td>
<td>0.1%</td>
</tr>
<tr>
<td>Hypertension</td>
<td>0.6%</td>
</tr>
<tr>
<td>Obesity as a family history</td>
<td>0.6%</td>
</tr>
<tr>
<td>Conduct disorder</td>
<td>0.5%</td>
</tr>
<tr>
<td>Asthma (ICD 10)</td>
<td>0.5%</td>
</tr>
<tr>
<td>Unspecified mental disorder</td>
<td>0.5%</td>
</tr>
<tr>
<td>Learning disorder</td>
<td>0.3%</td>
</tr>
<tr>
<td>Family history of obesity (ICD 10)</td>
<td>0.3%</td>
</tr>
</tbody>
</table>

Note: Prevalence higher in Latin America, lower in Asia

Source: Wang & Davis (1990)

Figure 9: Percent of mother-child pairs with stunted child-overweight mother (BMI, 23 African countries)

• One aspect of the nutrition transition is that as it progresses, the relation with income and urban residence flips around.

Health consequences include:
- Metabolic syndrome (right)
- Early age at menarche (below)
- Diabetes
Interventions

No country in the world has yet seen a decrease in overweight and obesity.

Current research funding is inversely related to potential for preventing obesity (Subainstein et al., IOTF task force 2004)

Policy options always boil down to these three:

- Information/education
- Incentives (rewards)
- Regulation/penalties (e.g. taxes)

"A major threat to the health systems of developing countries may not be only the importation of 'Westernized lifestyles,' but also the importation of 'Westernized medical responses.'"

Yach et al., 2006. Assigned reading.