Food Insecurity: A Health “Vital” Sign

According to the American Academy of Pediatrics:

Pediatricians can play a central role in screening and identifying children at risk for food insecurity and in connecting families with needed community resources. The American Academy of Pediatrics recommends that pediatricians engage in efforts to mitigate food insecurity at the practice level and beyond (November, 2015).1

What is Food Insecurity?

According to the U.S. Department of Agriculture,2 food insecurity ranges from having lower quality, variety, or desirability of diet, with little to no indication of reduced food intake (previously “food insecurity without hunger”), to having multiple indications of disrupted eating patterns with reduced food intake (previously “food insecurity with hunger”). Food insecurity represents a “household-level economic and social condition of limited or uncertain access to adequate food.”2

What Contributes to Food Insecurity?

The Food Trust3 has identified several factors contributing to the inaccessibility of healthy foods. These factors may also contribute to food insecurity and include:

- Poverty
- Living in a community of color
- Living in rural or low-income urban areas
- Lack of grocery stores or supermarkets selling healthy and/or culturally-appropriate foods
- Lack of transportation

Additionally, chronic physical and mental health conditions have also been found to increase risk for food insecurity.4-5

Health Consequences of Food Insecurity

A nutritious diet is necessary to promote health and prevent illness. As chronic health conditions contribute to food insecurity, food insecurity also results in poor health outcomes. It is estimated that 40% of health outcomes are related to social and economic variables.6 Food insecurity has been associated with health problems and complications in both adults and children, including:

- Delay of needed medical care7
- Increased hospitalizations and emergency department visits 7
- Medication underuse and delay in medication refills 7-10
- Overweight and obesity, particularly among women11-12
- Type 2 diabetes, poor glycemic (i.e., blood sugar) control, and increased diabetes-related hospitalizations13-16
- High blood pressure and increased cardiovascular (i.e., heart and circulation) risk factors13
- Risk for impaired physical and cognitive development, as well as learning difficulties, among chronically undernourished children17
- Significant increased risk of chronic diseases for populations at 200% and below poverty (see table below)18

Chronic disease demographics by income18

<table>
<thead>
<tr>
<th>Chronic disease</th>
<th>Entire population</th>
<th>Income (% of Poverty 200% &amp; below)</th>
<th>Disease Rate among low-income population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes</td>
<td>8%</td>
<td>22%</td>
<td>2.75x more prevalent</td>
</tr>
<tr>
<td>Obesity</td>
<td>26%</td>
<td>59%</td>
<td>2.3 x more prevalent</td>
</tr>
<tr>
<td>Hypertension</td>
<td>24%</td>
<td>53%</td>
<td>2.2x more prevalent</td>
</tr>
<tr>
<td>Coronary heart disease</td>
<td>6%</td>
<td>18%</td>
<td>3x more prevalent</td>
</tr>
</tbody>
</table>

Source: National Health Interview Survey Data 2007

Food Insecurity and Healthcare Economics
More frequent or inadequately managed illnesses, hospitalizations, and emergency department visits due to food insecurity increase healthcare expenses— for the individual, family, and health care system. Four of the 10 health conditions in 2011 that accounted for the highest health care expenditures are linked to food insecurity, including heart disease, diabetes, hypertension, and hyperlipidemia. Yet 80% of physicians do not feel adequately equipped to address their patients’ social needs, and as a result do not believe they are providing high-quality care.

Health expenditures for obesity and diabetes, two chronic conditions affecting a significant percent of the U.S. population and directly influenced by food insecurity, are as follows:

- Annual medical costs associated directly with obesity and overweight were estimated at $147 billion in 2008 with increases to $152 billion in 2014.
- Indirect costs of obesity—lost productivity, insurance premiums & co-pays, absenteeism—estimated at $73 billion annually.
- Diabetes-associated costs:
  - Total costs (direct and indirect) of diabetes in 2012: $245 billion.
  - Direct medical costs: $176 billion.
  - Indirect costs (related to disability, work loss, premature death): $69 billion.
  - On average, medical expenses for a person with diagnosed diabetes are more than twice as much as the expenses of a person without diabetes.

**Emerging Interventions Addressing Food Insecurity**

Healthcare and community agencies can play an important role in identifying and addressing food insecurity. Emerging interventions around the nation have included:

- Standard screening for food insecurity at healthcare encounters and in the community
- Standard food insecurity questions currently in use:
  - Within the past 12 months we worried whether our food would run out before we got money to buy more.
  - Within the past 12 months the food we bought just didn’t last and we didn’t have money to get more.
  - For each statement, respondents choose whether the statement was "often true, sometimes true, never true, or don’t know or refused" for their household.
- Provision of food at healthcare locations
- Food prescriptions and/or produce vouchers
- Connecting patients with community food resources
- Nutrition and cooking education
References


