Fresh Food Pharmacy

Changing How We Care for Patients with Food Insecurity

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Food Insecurity: Definition

• Food insecurity is defined as “… the inability to afford nutritionally adequate and safe foods.”

• Food insecurity is evident when families or individuals:
  • Lack access to food
  • Depend on food assistance programs
  • Skip meals
  • Substitute nutritious foods with less expensive alternatives
  • Seek assistance from soup kitchens and food pantries

Food Insecurity Questions

• Within the past 12 months, we worried whether our food would run out before we got money to buy more (Y/N).

• Within the past 12 months, the food we bought just didn’t last, and we didn’t have money to get more (Y/N).
Food Insecurity: Statistics

• In 2015 it was estimated that:
  • 13% (almost 1 in 8) of Americans were food insecure*
  • 18% (1 in 6) of American children were food insecure^ 

• Food insecurity and poverty, while closely linked, are not synonymous.
  • Each family has its own expenses and standard of living, and different costs.
  • It is possible to earn below poverty levels and be food secure or earn above poverty level and be food insecure.^^

^https://www.childtrends.org/indicators/food-insecurity/
^^http://www.medscape.com/viewarticle/865606#vp_2
Comparison

Compared to the food secure, people who are food insecure are…

• More likely to be:
  • In households with children (who may also go hungry)

• More likely to have:
  • Poorer self-rated health
  • Limited healthcare access
  • More frequent poor physical and mental health days
  • Higher BMI
  • Higher prevalence of diabetes, smoking, depressive symptoms, and every type of functional limitation

https://www.cdc.gov/pcd/issues/2016/16_0103.htm
Food Insecurity and Health Implications

• Compared to the food secure, food insecure people:
  • Are disproportionately poorer in health and functional status
  • Have higher prevalence of risky health behaviors
  • Have greater prevalence of mild and severe depressive symptoms
  • Are less likely to report arthritis, cancer, hypertension, and diabetes due to limited access to healthcare
  • Have more unmet needs for chronic disease screening and prevention

https://www.cdc.gov/pcd/issues/2016/16_0103.htm
Diabetes and Related Diseases in Our Community

• 1 in 4 diabetics don’t know they have diabetes and are untreated
• An additional 22,000 Northumberland County adult residents have pre-diabetes and most (90%) don’t know it
• Heavy burden of food insecurity and diabetes in Northumberland, Lackawanna, and Juniata Counties

<table>
<thead>
<tr>
<th></th>
<th>Northumberland</th>
<th>Lackawanna</th>
<th>Juniata</th>
<th>PA</th>
<th>USA</th>
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</thead>
<tbody>
<tr>
<td><strong>Food-Insecurity Rate</strong></td>
<td>14.2%</td>
<td>13.0%</td>
<td>11%</td>
<td>13.8%</td>
<td>12.7%</td>
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<tr>
<td><strong>Child Food-Insecurity Rate</strong></td>
<td>22.5%</td>
<td>22.0%</td>
<td>18%</td>
<td>19.3%</td>
<td>18%</td>
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<tr>
<td><strong>Diabetes Rate</strong></td>
<td>12.1%</td>
<td>11.0%</td>
<td>12.3%</td>
<td>9.6%</td>
<td>9.3%</td>
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Food Insecurity and Diabetes

• The food insecurity is much higher for people with diabetes:
  • Feeding America reports 12.3% (almost 1 in 8) of Americans are food insecure
  • Americans with an A1c of 6.5-8.9: about 20%, or 1 in 5 of the population are food insecure*
  • Americans with an A1c of 9 or higher: 25%, or 1 in 4, of the population are food insecure*

Diabetes Is the Fastest Growing Chronic Condition

- 39 million or 15% of adults will have diabetes by 2020.
- 1 in 3 adults will have diabetes by 2050

A Vicious Bidirectional Relationship—Which Came First?

- Food insecurity can worsen a person’s diabetes and vice versa
  - Lower dietary quality
    - Lack of funds or access to nutritious foods
    - High availability of nutritiously poor foods
  - Increased spending on medical care (“treat or eat”)
  - Decreased capability for self-care
- Reduced capacity to work
- Higher stress and obesity
- Poorer mental health
- Lack of opportunities to be physically active
- Limited access to healthcare
- Lack of transportation
- More emergency-room visits

https://www.diabetesselfmanagement.com/blog/are-you-food-insecure/
Multiple Factors Impact Patient Health

Four areas impact health:

- **Socioeconomic Factors**
  - Education
  - Job Status
  - Family/Social Support
  - Income
  - Community Safety

- **Physical environment**

- **Health behaviors**
  - Tobacco use
  - Diet and exercise
  - Alcohol use
  - Sexual activity

- **Healthcare**
  - Access to care
  - Quality of care
Program Premise

What if we could eliminate hunger and prevent chronic disease?
Where Did We Start?

• Fresh Food Pharmacy program
  • Kulpmont pilot began in July 2016
  • Full program expansion in March 2017 to serve 250+ patients and their family members in Year 1

• Food-as-medicine approach
  • Addresses both medical and socioeconomic determinants of health

• Starting with diabetic patients and will expand to treat obese, pre-diabetic, and patients with other chronic conditions
Coming Together

Partnership already includes:

- Central Pennsylvania Food Bank
- Weis Markets
- Shamokin Area School District and Northumberland County Career and Technology Center
- Degenstein Foundation
- Many local community organizations
- Geisinger healthcare team
Fresh Food Pharmacy Model

- Primary care doctor
- Community health assistant
- Case manager
- Registered dietician
- Pharmacist
- Community health educators
- Reduction in diabetes disparities
- Better health
- Food secure and personal engagement in own well-being
- Patient/family
- Social environment & community partners
- Food bank
- Social workers
- Access to resources
- Wellness events
- Physical activity

Geisinger
Program Structure

Clinical criteria:

- 18 years of age or older
- Diagnosed with Type II DM
- HBA1c 8.0% or greater
- Geisinger primary or specialty care
- Food insecure
How the Program Works

• Identified patients with A1c levels over 8.0 who are food insecure

• Geisinger provides clinical care team intervention:
  • RN Health Management
  • Pharmacy
  • Diabetes education
  • Nutrition consult
  • Healthy food prescription and delivery each week of healthy food for patient and family
How the Program Works (cont.)

• Food provided for 2 meals per day, 5 days per week for the patient and patient’s family
  • Feeds on average 4 people in the household, including children

• Transportation gaps closed

• Food pick-up coordinated with classes and care-team appointments

• Comprehensive meal planning and recipes provided

• Stanford-designed Diabetes Self Management (DSMP) classes provided