Module 7. Food Insecurity

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Objectives

1. To understand the concept of a food desert.
2. To understand how local food environment plays a role in residents' ability to purchase healthy, affordable and nutritious goods
3. To be able to connect patients with food security issues to appropriate services.

Case:

A 54-year-old male with a history of diabetes, hypertension, and congestive heart failure (ejection fraction 20-25%) presents to the emergency department with dyspnea on exertion, worsening lower extremity edema and orthopnea. The patient states he has been compliant with medications. His physical exam shows signs of volume overload. Labs demonstrate hyperglycemia of 450 mg/dL without an anion-gap, and a negative troponin. His EKG is non-ischemic and chest x-ray shows pulmonary edema. Upon review of prior visits, you find that the patient has been hospitalized 4 times this year with CHF exacerbations and his sugars have constantly been elevated. The patient states he always takes his medication but does admit difficulty with sticking to his cardiac diet. Since his wife died, he lives alone. She had always been the cook and now he eats a lot of prepared foods to make up for his lack of cooking knowledge and to stretch his budget. He has no car and walks to the closest store to purchase his food, a small grocery store about 3 blocks from his house (the furthest he can walk) that has a limited supply of vegetables. He notes that canned products are particularly cheap and saves his money by buying canned soups and beans.

Discussion Questions:

1. What are the barriers to eating healthy for this patient?
2. How does lack of access to healthy foods affect this patient's health?
3. What can be done to help this patient eat healthier?

Teaching Points

1. Practitioners should be aware of the effects of food deserts on patient's ability to comply with treatment plans and the contribution to overall poor health outcomes. In addition, those patients who are on a specific diet, such as those with diabetes or congestive heart failure, may find it even more difficult to adhere to the diet if they become homeless and rely on food banks or soup kitchens for their meals because of the lack of control over their food choices.
2. Studies have shown that poor and minority neighborhoods have increased exposure to unhealthy advertisements for tobacco and alcohol, fewer pharmacies with fewer medications, and fewer supermarkets that offer a larger variety of affordable and healthy foods compared to smaller convenience stores.
3. Food prices are higher and food quality is poorer in impoverished areas. There is both a smaller quantity of food and less variety offered at stores in these areas.
4. Identifying food insecurity with connection to social work and other services (WIC, etc.) can improve overall patient outcomes.

Practical Questions

1. What are the unique barriers to care encountered by patients at your hospital related to food insecurity?
2. What food deserts are in your hospital catchment area (bring up map below)
3. What resources are available at the hospital related to food security?
4. How can you connect a patient with the WIC program or food stamps?

Recommended Screening Question(s):

The LA County Health Agency SBDOH Workgroup recommends using both questions below. If only using one, we recommend using #1, as it is more sensitive than #2 alone.

1. Within the past 12 months, were you worried whether your food would run out before you got money to buy more?
   - ☐ Often true
   - ☐ Sometimes true
   - ☐ Never true
2. Within the past 12 months the food you bought just didn't last and you didn't have money to get more. Was this:
   - ☐ Often true
   - ☐ Sometimes true
   - ☐ Never true

Paired Reading:

Walker RE, Keane CR, Burke JG. Disparities and access to healthy food in the United States: A review of food deserts literature. Health Place 2010;16:876-84. Available at: https://www.ncbi.nlm.nih.gov/pubmed/20462784

Discussion Points from the Reading

1. Food deserts are poor, urban areas where residents cannot buy affordable, healthy food. In a food desert, residents have increased exposure to emptier calorie foods from convenience stores and fast food restaurants. People make food choices based on the food options available in their immediate vicinity, often out of necessity secondary to lack of transportation.
2. Access to supermarkets is critical and there are large areas of the country without supermarkets, and this is a way in which the built environment directly impacts health. There are racial disparities in the prevalence of food deserts, with Black neighborhoods having less supermarkets compared to White neighborhoods. Those stores that are present in economically depressed areas tend to be smaller and offer less variety of foods.

Additional Readings:

1. Food Desert Map: https://www.ers.usda.gov/data-products/food-access-research-atlas/
2. Chen D, Jaenicke EC, Volpe RJ. Food Environments and Obesity: Household Diet Expenditure Versus Food Deserts. Am J Public Health 2016;106:881-8.
3. Larson NI, Story MT. Food insecurity and weight status among U.S. children and families: a review of the literature. Am J Prev Med 2011;40:166-73.