

University of Vermont

UVM ScholarWorks

Family Medicine Clerkship Student Projects

Family Medicine Community

2022

Accessibility of Nutritious and Healthy Foods to Older Adults

Kristen Wright

University of Vermont

Follow this and additional works at: <https://scholarworks.uvm.edu/fmclerk>



Part of the [Medical Education Commons](#), and the [Primary Care Commons](#)

Recommended Citation

Wright, Kristen, "Accessibility of Nutritious and Healthy Foods to Older Adults" (2022). *Family Medicine Clerkship Student Projects*. 810.

<https://scholarworks.uvm.edu/fmclerk/810>

This Book is brought to you for free and open access by the Family Medicine Community at UVM ScholarWorks. It has been accepted for inclusion in Family Medicine Clerkship Student Projects by an authorized administrator of UVM ScholarWorks. For more information, please contact schwks@uvm.edu.



Accessibility of Nutritious and Healthy Foods to Older Adults

Kristen Wright | Newtown Primary Care | August 2022 |
Dr. Eurica Chang





Problem Identification

- As of 2021, food insecurity rates are high for older adults who are homebound (Tucher et al., 2021).
- These patients may have functional limitations, have comorbidities limiting their mobility, be socially isolated, live alone, or live in rural areas distant from markets selling healthy food
- From 2005 through 2025, food insecurity will increase by 75% for adults aged 60 or older (CDC, 2018).
- The COVID-19 pandemic has further isolated older adults; many are afraid to leave their home, which makes it difficult for them to continue prior social connections, relationships, and activities, like grocery shopping (MacLeod et al., 2021).
 - Decreased availability of fresh, healthy food for older adults due to decreased shopping frequency can impact heart health, weight, and diabetes.
- Online food order and delivery increased during the pandemic, and there is an increase in unhealthier eating habits during the COVID-19 lockdown, which have persisted after lockdown measures were removed (Agarwal et al., 2021)
 - Food insecurity and inaccessibility to older adults is associated with increased risk or prevalence of chronic conditions like hypertension, asthma, diabetes, arthritis, bronchitis, and emphysema (CDC, 2018).



Public Health Cost and Considerations

- There are increasing health care costs associated with older adults, food insecurity, and chronic health conditions.
- Health care costs associated with food insecurity was \$160.7 billion in 2014 (Garcia et. al, 2018),
- Food insecurity rates had been improving since then until the COVID-19 pandemic, where food insecurity rose again as people faced hardships
- Before the start of the pandemic, the overall food insecurity rate had reached its lowest point since it began to be measured in the 1990s, but those improvements were being upended by the pandemic (Feeding America).
- For specific chronic conditions, food-insecure older adults faced higher health care costs per year than food-secure adults with the same condition
 - Food-insecure adults had costs of \$10,240-\$13,290 compared to food-secure adults with costs of \$9,030-\$11,900 on average.
 - Health care costs based on food insecurity increased by 18% for adults with arthritis, and 16% for those with hypertension
- In D.C. alone, \$22.1 million was spent on patients 65 or older with cancer for nutrition-related problems; \$96.5 million for those with diabetes (CDC, 2018).
- There is a high economic burden and negative health associations with inaccessibility to healthy food for older adults with chronic conditions (CDC, 2018).



Community Perspective

- “There are lots of older people who don’t have access to good food. And the pandemic hasn’t made it any easier. A lot are afraid to come out, especially with Monkeypox going around now. Thankfully, my father is in a nursing facility, not the one I work at, and has a nutrition plan made for him. But I’ve seen a lot of relatives who order food, or have it delivered because they just can’t leave the house, and not all of it is healthy food.”
 - Yvonne Cecile, CNA at a nursing home facility
- “My mother had arthritis and diabetes. Her cholesterol wasn’t too good either. She loved to cook but struggled to keep it up with her arthritis. My father wasn’t a good cook himself either, so they used to eat frozen foods you could warm up in the microwave or eat at the restaurants. I realized this wasn’t good for their health, so I used to make meals for them. It became difficult, however, as I was also raising my children and caring for them. I couldn’t keep up and none of my siblings were around to help. Both eventually passed away, my mother from a heart attack, and my father from a stroke. With food delivery so prevalent these days, I wish I could have ordered some healthy food that was easy for them to put together. But honestly, there aren’t enough healthy delivery options out here now, and probably even less back then. I know about Meals on Wheels, but my parents wouldn’t have qualified since they’re not fully homebound.”
 - Lorna Williams, former caregiver



Intervention and Methodology

- Conduct food insecurity screenings at all primary care visits, both in home and clinic
 - Hunger Vital Sign™ two-question screening tool*
 - “Within the past 12 months, I/we worried whether my/our food would run out before I/we had money to buy more.”
 - “Within the past 12 months, the food I/we bought just didn’t last and I/we didn’t have money to get more.”
 - USDA Economic Research Service 18-item food security survey (abbreviated six-item survey also available)*
 - “In the last 12 months, I/we couldn’t afford to eat balanced meals”
 - “In the last 12 months, I/we cut the size of my/our meals or skip meals because there wasn’t enough money for food”
 - 24-hour diet recall
- Assess patient mobility and barriers to healthy food access or preparation
- Connect food-insecure older adults to resources
 - Senior Cafes, such as in Greater New Haven
 - Food Boxes from Connecticut Food Bank
 - SNAP (eligible for use at grocery stores and farmer’s markets)
 - Home Delivery Programs in CT (i.e., My Local Chefs, Simply Delicious, The Home Cook, Edibolic Kitchen, Meals on Wheels)
- *Note: Questions were modified and adapted from the Hunger Vital Sign and USA Economic research Service Food Security Screen.*



Results

- Conducted screening for 20 older adults
- 1 of the 20 adults had food insecurity
 - Further interviewing elicited limited mobility due to chronic conditions, limited cooking skills, and high organic food costs as reasons for inaccessibility to healthy meals
- 12 of the 20 homebound interviewed had additional help from family, home aids, or nursing facilities for access to healthier foods
- 3 of the 20 adults were fully homebound
- 12 of the 20 were limited in mobility (i.e., wheelchair, walker, cane, limited vision, chronic conditions like arthritis)
- 3 of 20 mentioned having had SNAP benefits, which made it easier to buy healthier foods
- Screening for food insecurity helped provide a better picture of how older adults are managing nutrition, and revealed barriers to eating healthier meals
- *All patient information was de-identified.*



Effectiveness and Limitations

- Effectiveness

- Some participants mentioned feeling more aware of their eating habits and discussed improving their choices of foods
- Screening participants allowed for identification of patients with food insecurities and created opportunities to provide resources
- Changes in health and food security can be seen longitudinally with screening at every primary care clinic visit
- Homebound adults can receive additional screening, care, and access to resources
- Diet can be improved by coordinating access to nutritionists, dieticians, psychologists/psychiatrists, and social workers

- Limitations

- Survey didn't take SNAP benefits into consideration, as adults with SNAP previously had difficulty buying healthy food but now have benefits from the program
- Many older adults have food insecurity that is not due to financial reasons, which the screening tools focus on
- There are older adults who have limited cooking abilities, and need additional help in creating healthy meals rather than help in acquiring healthy ingredients

- .



Recommendations for Future Projects

- Create a pamphlet discussing food insecurity and inaccessibility for older adults and provide them in clinic and during home visits
- Incorporate discussion of exercise and medications, which influence weight, respiration, vascular health, blood sugar levels, and several other factors that are affected in chronic conditions like hypertension, diabetes, and cancer
- Train primary care providers on screening for food insecurity and educate them on resources in the area that their patients can use
- Include nutritionists, dieticians, social workers, psychologists, and psychiatrists in food insecurity and inaccessibility training to discuss effect of improving diet in patients with lower socioeconomic status or chronic conditions such as depression, obesity, and cardiovascular disease.



References

- Agarwal S, Huang P, Luo C, Qin Y, Zhan C. Assessment of Online Food Ordering and Delivery in Singapore During the COVID-19 Pandemic. *JAMA Netw Open*. 2021;4(9):e2126466. doi:10.1001/jamanetworkopen.2021.26466
- Feeding America. The Impact of the Coronavirus on Food Insecurity in 2020 & 2021. Feeding America. Available from: https://www.feedingamerica.org/sites/default/files/2021-03/National%20Projections%20Brief_3.9.2021_o.pdf
- Garcia SP, Haddix A, Barnett K. Incremental Health Care Costs Associated With Food Insecurity and Chronic Conditions Among Older Adults. *Prev Chronic Dis* 2018;15:180058. DOI: <http://dx.doi.org/10.5888/pcd15.180058>
- Health Care Without Harm. Food insecurity screening. Healthy food playbook. Available from: <https://foodcommunitybenefit.noharm.org/resources/implementation-strategy/food-insecurity-screening>
- MacLeod S, Tkatch R, Kraemer S, Fellows A, McGinn M, Schaeffer J, Yeh CS. COVID-19 Era Social Isolation among Older Adults. *Geriatrics (Basel)*. 2021 May 18;6(2):52. doi: 10.3390/geriatrics6020052. PMID: 34069953; PMCID: PMC8162327.
- Tucher EL, Keeney T, Cohen AJ, Thomas KS. Conceptualizing Food Insecurity Among Older Adults: Development of a Summary Indicator in the National Health and Aging Trends Study. *J Gerontol B Psychol Sci Soc Sci*. 2021 Nov 15;76(10):2063-2072. doi: 10.1093/geronb/gbaa147. PMID: 33001172; PMCID: PMC8599055.
- USDA. U.S. Household Food Security Survey Module: Six-Item Short Form Economic Research Service. USDA. Available from: <https://www.ers.usda.gov/media/8282/short2012.pdf>



Interview Consent Form

- *Thank you for agreeing to be interviewed. This project is a requirement for the Family Medicine clerkship. It will be stored on the Dana Library ScholarWorks website. Your name will be attached to your interview and you may be cited directly or indirectly in subsequent unpublished or published work. The interviewer affirms that he/she has explained the nature and purpose of this project. The interviewee affirms that he/she has consented to this interview.*
- *Consented*
 - *Lorna Williams*
 - *Yvonne Cecile*