

Background

- Homeless populations also experience disproportionately high rates of diet-related chronic illnesses such as hypertension, hypercholesterolemia, and diabetes mellitus¹.
- Previous studies have shown that access to nutritional education in shelters was both effective at improving food quality and was well-received by guests^{2,3}.
- As charitable food donations in shelters and food kitchens often serve as the primary food source for people who are experiencing homelessness, they represent an avenue to impact food access, choice, and quality. Therefore, they offer concrete targets for nutritional interventions.
- With all the competing priorities that are at play in homelessness, it is unclear whether providing nutritional education remains an important consideration in the daily life of individuals experiencing homelessness.

Objective

The objective of this quality improvement project was to assess the nutritional needs of patients at risk for diabetes who are experiencing homelessness in Boston.

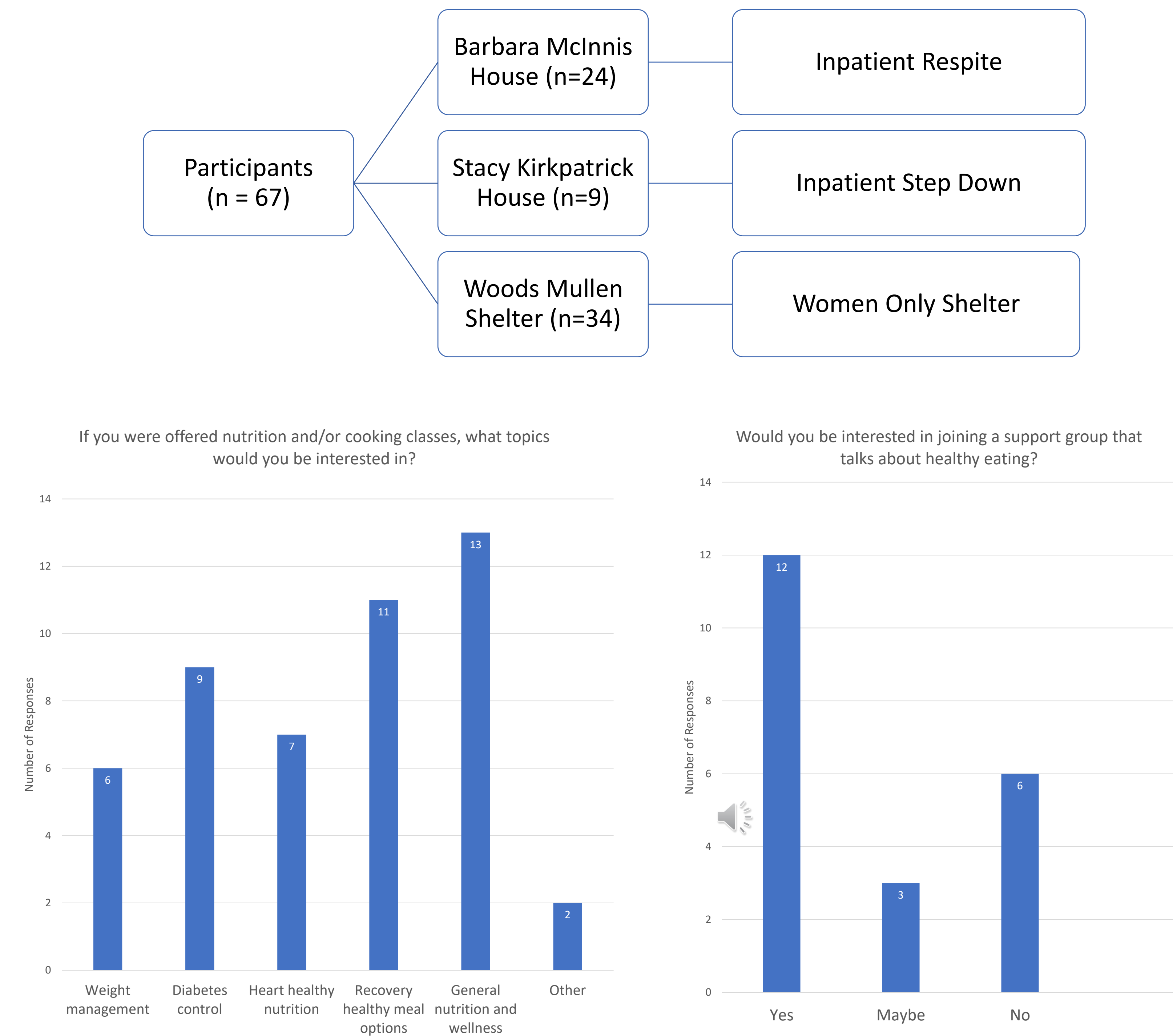
Methods

Study Design	<ul style="list-style-type: none"> IRB-exempt Retrospective analysis of a survey-based quality improvement project
Survey	<ul style="list-style-type: none"> 11 nutritional-based questions using a mixture of Likert scales and open-ended questions Survey items: patients' perception on the importance of nutrition, interest in learning more about nutrition, interest in joining a support group around healthy eating, concerns about one's own nutritional intake, suggested changes to food distributed at shelters, and support needed to access healthy food
Participants	<ul style="list-style-type: none"> Convenience sampling used to recruit patients at 3 different adult shelters in the City of Boston Shelters are affiliated with Boston Health Care for the Homeless Program: <ul style="list-style-type: none"> Barbara McInnis House Stacy Kirkpatrick House Woods Mullen Shelter
Data Collection	<ul style="list-style-type: none"> Patients were interviewed by staff and/or interns (PharmD and MPH candidates) Staff and/or interns documented patients' responses via pen and paper The results were subsequently inputted electronically into Qualtrics
Data Analysis	<ul style="list-style-type: none"> Data were analyzed using descriptive statistics

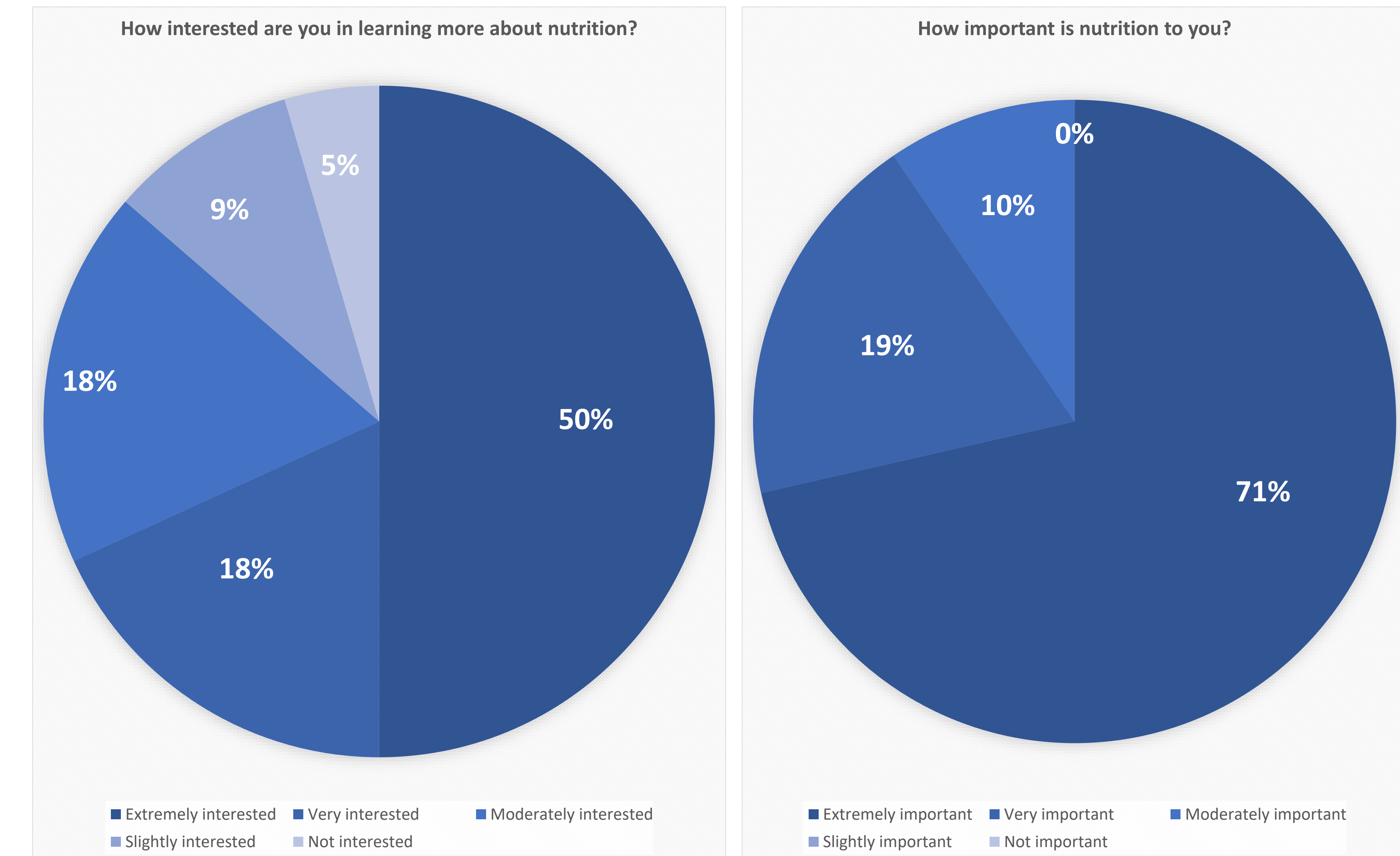
References

- Jones, CA, Perera, A, Chow, M et al. (2009) Cardiovascular disease risk among the poor and homeless – what we know so far. *Curr Cardiol Rev* 5, 69–77. <https://pubmed.ncbi.nlm.nih.gov/20066152/>
- Cooking, healthy eating, fitness and fun (CHEFFS): qualitative evaluation of a nutrition education program for children living at urban family homeless shelters. <https://pubmed.ncbi.nlm.nih.gov/24148062/>
- Nutrition for homeless populations: shelters and soup kitchens as opportunities for intervention. <https://www.cambridge.org/core/journals/public-health-nutrition/article/nutrition-for-homeless-populations-shelters-and-soup-kitchens-as-opportunities-for-intervention/1182ECF96F026D6D6E3B1529907E12FB8>

Results



Open-Ended Questions	Sample Responses/Themes
Is there anything particular you would like to learn more about?	<ul style="list-style-type: none"> learning how to eat less sugar and salt proper nutrition for his/her age food that is not painful to eat
Do you have any questions/concerns about your own personal nutrition?	<ul style="list-style-type: none"> how to be healthy in a place where you don't have control over your own food some foods are just hard to eat how to control sugar better what to eat as a person with diabetes
For the 56 patients who reported eating at shelters: What, if any, nutrition improvements/changes would you like to make at this location?	<ul style="list-style-type: none"> food is too unhealthy more healthy food stop putting so much salt in the food more vegetables more fruits more protein, less carbs
What support do you need to access healthy food and meals?	<ul style="list-style-type: none"> how to read a label healthy food weight watchers primary care, case managers



Next Steps

- Overall, our project highlights the overwhelming desire for improved nutritional education and food quality amongst the homeless. This provides a strong basis for continued partnerships and communications between patients, institutions, and medical staff to implement and bolster nutritional education initiatives aimed at improving health outcomes.
- In line with previous research³, our results show that the desire for nutritional education and improved food quality represent salient factors for homeless individuals.
- Limitations of this project:
 - Unable to calculate response rates due to inconsistency in the number of patients going through the shelters each day
 - Lack of demographic information
- Next steps towards improving health outcomes include providing structured nutritional education programs for both staff and guests at shelters and soup kitchens. Such programs and interventions may include but are not limited to:
 - Nutritional education disseminated to guests at shelters and food kitchens by diverse levels of staff (e.g. clinical and non-clinical staff)
 - Educating those that work in food service about preparation, portions, and quality of food provided to homeless populations; and
 - Increasing food quality within budgetary constraints
- Many of the existing nutritional programs target housed populations, which may not be adequate to address the current need of individuals experiencing homelessness due to the vast landscape of competing priorities. Therefore, as nutritional education programs are developed for such populations, data will need to be harnessed to ensure that such initiatives meet the needs of patients in their current situational state.