

# Improving the Diet Quality of Food Pantry Populations Through a Nutrition-Focused System of Distribution: An assessment

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## Introduction

The Dorothy Day Food Pantry (DDFP) has been providing supplemental food to the community since 1999 (Dorothy Day, 2019).

The food pantry has a goal of “address[ing] the health needs of people living in poverty” as well as providing food (Dorothy Day, 2019).

These health needs include improved access to healthy, nutrient-dense foods due to the higher prevalence of certain chronic diseases such as obesity, diabetes, and the greater incidence of malnutrition (Darmon & Drewnowski, 2008).

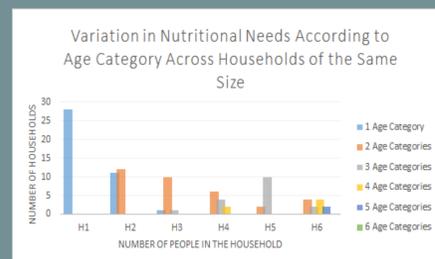
Most food pantries, including Dorothy Day, distribute pounds of food based on household size.

Research shows that nutrient and energy needs for households and individuals vary based on many factors such as health status, physical activity level, age, sex, and more (USDA, 2018).

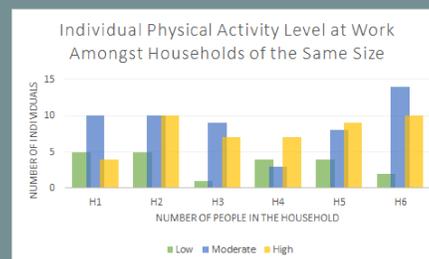
A needs assessment was undertaken at the DDFP to identify potential inadequacies in the current food distribution system and discover information that could assist in formulating possible solutions.

## Methodology

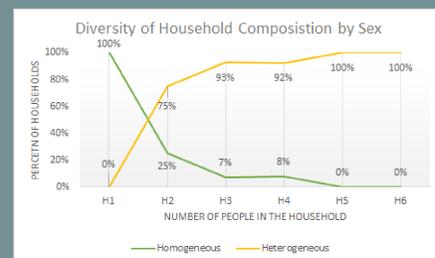
- Participants:
  - DDFP clients
  - Cass/Clay County residents
  - 18+ years old
  - Low socioeconomic status
  - 1 participant per household
- Procedures
  - Approved by Concordia College IRB
  - Timeframe: December 5<sup>th</sup> – 20<sup>th</sup>
  - Measure: Survey
    - Questions 1-6: purpose was to better understand how nutritional needs vary amongst households of the same size
    - Questions 7-11: purpose was to understand how clients use food received from the pantry
  - Incentive: entry into a drawing for a \$25 Visa gift card
- Analysis
  - Data entered into Excel
  - Organized by household size
  - Answers that rendered the data unusable were not included
    - Ex: Not giving the total number of people in the household



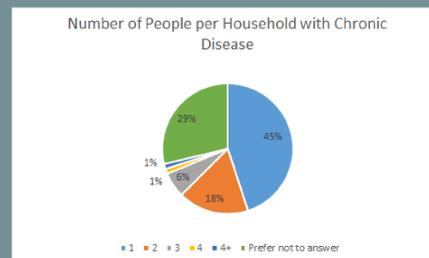
Graph 1. This graph shows how individual households of the same size have different nutritional needs based on the age of the household members. Each age category represents different nutritional needs per USDA guidelines.



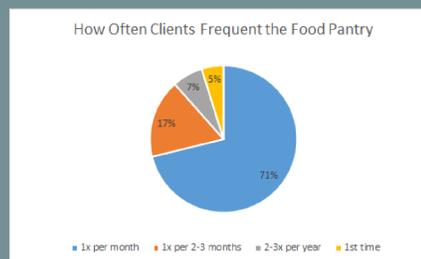
Graph 3. This graph shows the variety of energy expenditure that exists among households of the same size.



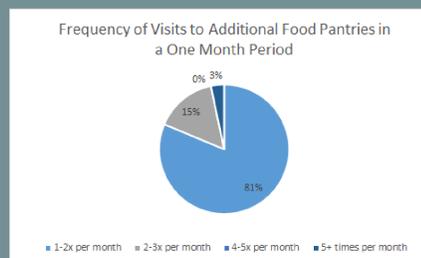
Graph 2. This graph shows how households of the same size can differ greatly in their individual composition by the sex of its members.



Graph 4. This graph displays how many people of households of all sizes suffer from a chronic disease.



Graph 5. This graph refers to question 9, or question 3 in part II, of the assessment survey.



Graph 6. This graph refers to question 10, or question 4 in part II, of the assessment survey.

## Results

- If households of the same size had the same nutritional needs, their responses to questions 2-6 of the assessment survey would be the same, if not similar.
- Question 2
  - Households of two or more people reflect a variety of age categories with the diversity generally increasing as household size increased.
- Question 3
  - Heterogeneous households were defined as those composed of more than one sex while homogenous households were composed of only one sex, male or female. As household size increased, the number of heterogeneous households increased as well, while the number of homogenous households diminished to zero for households of six or more.
- Question 4
  - Across all household sizes, the data reflects diversity and that clients of the DDFP seem to trend towards employment that requires greater physical energy expenditure and thus represents greater caloric needs.
- Question 5
  - Of the people who responded to this question, there were only two clients who reported as lactating. Due to the relative insignificance of these numbers, this data were not included in the overall analysis and results.
- Question 6
  - 45% of people answered that at least one member of their household is suffering from a chronic disease with some larger households having four or more household members with chronic disease.
- Questions 7-11
  - Food baskets last most households 4-7 days.
  - For most clients, all household members consume food acquired from the DDFP.
  - Most clients frequent the pantry every month.
  - Most clients primarily utilize the DDFP rather than a variety of food pantries every month.
  - Clients report relying on the DDFP to receive milk, meat, fruits, and vegetables almost equally.

## Discussion

The assessment data show a great variety in household characteristics amongst households of the same size, which reflect differences in energy and nutrient requirements.

Food pantry systems based solely on household size are not distributing food representative of the variety of energy and nutrient needs between households of the same size.

The assessment data also shows that people needing food assistance prefer to receive that assistance from one primary location. Clients are not looking to receive only one type of food, but a balance of all foods.

This information underscores the importance that each food pantry provide nutritionally adequate food to vulnerable populations based on their individual needs.

## Conclusion

Food pantries have the opportunity to change the lives of their clients by providing food that offers adequate nutrition. Food distribution systems based on household size do not account for the individual energy and nutrient needs of household members. Therefore, additional efforts are needed to ensure that clients who are heavily utilizing food pantries are also receiving food that will meet their individual household members' nutritional needs.

## Acknowledgements

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## References

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