

# Quality Improvement for Community Nutrition Education Programs

Hope R. Rietcheck, BS, Jeremy A. Long, MD

School of Medicine, University of Colorado Anschutz Medical Campus, Aurora, CO

## BACKGROUND

- Food pantries are often unable to support healthy diets.<sup>1-2</sup>
- Dietitians working in food banks have led efforts to increase healthy food access and nutrition education; these studies have provided several recommendations for effective nutrition policies.<sup>3,5-7</sup>
- Community health outcomes can be positively impacted through alleviation of food insecurity and nutrition education interventions.<sup>3-4, 8-13</sup>
- Metro Caring, an anti-hunger center in Denver, CO, has developed several nutritional programs including cultural and health focused cooking classes, community gardens, diabetes programs, and volunteer opportunities. Two initiatives to improve participant health and engage community members in understanding and adjusting their eating and lifestyle behaviors are the Healthy Tastings recipe and the Food For Thought nutritional activity.
- The nutrition team employs methods based around the Stages of Change Model<sup>19,20</sup> as a means to encourage participants to actively engage in making healthy decisions in daily life.
- As newer additions to Metro Caring, Healthy Tastings and Food For Thought had yet to be evaluated for impact and participant impressions.

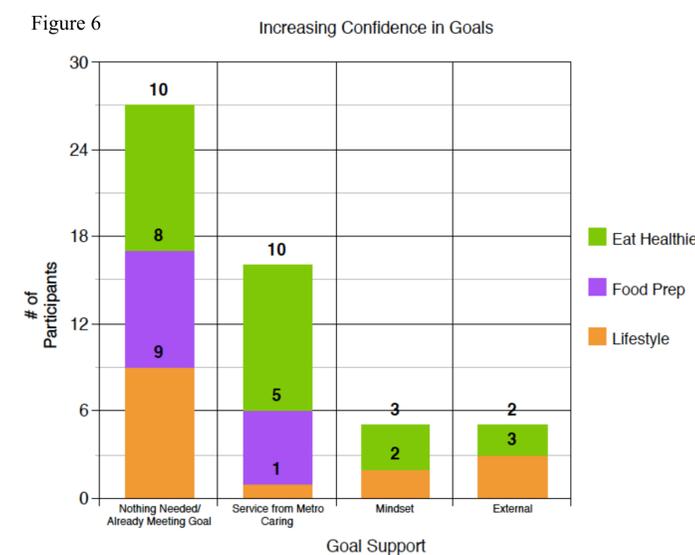
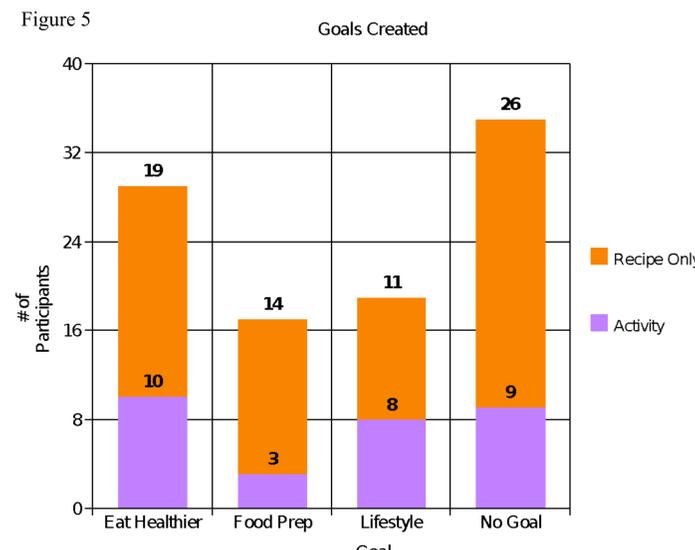
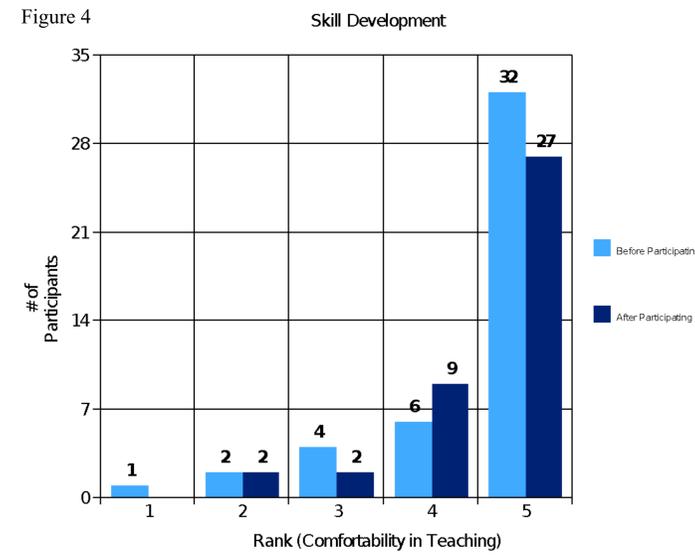
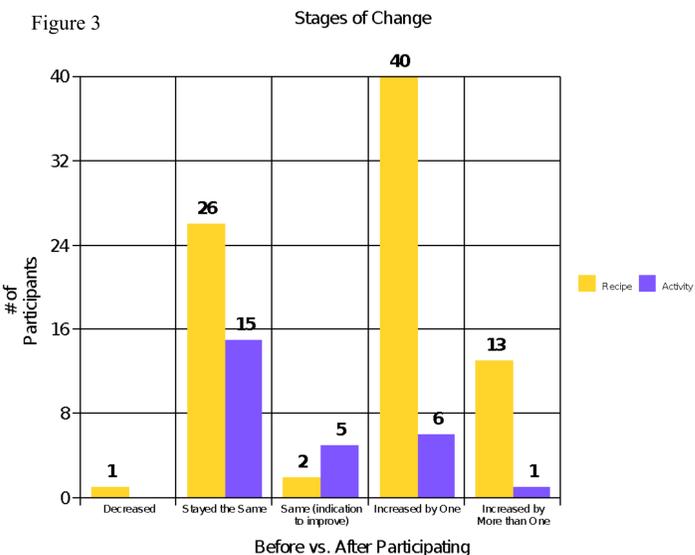
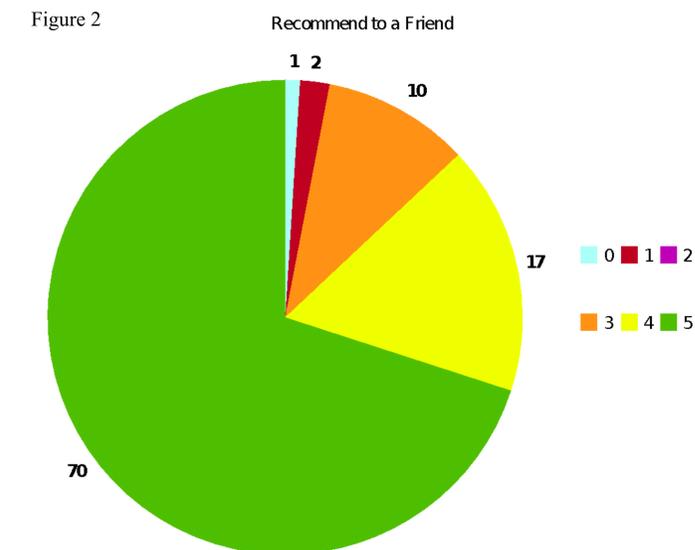
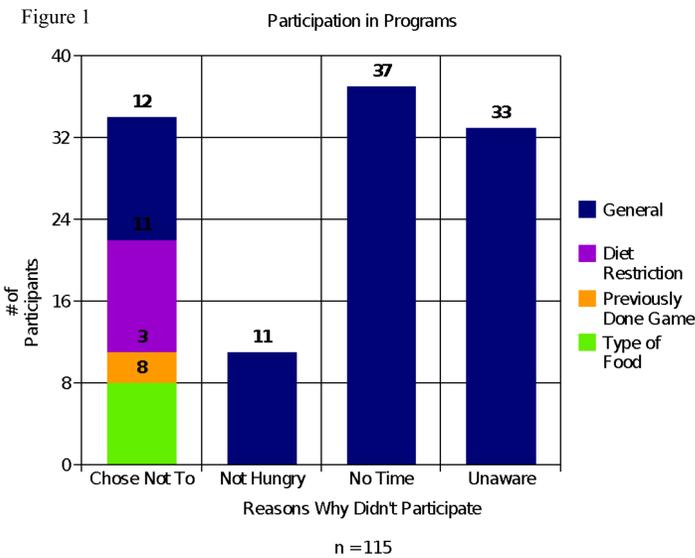
## OBJECTIVES

To measure the impact of Metro Caring's Healthy Tastings recipe demonstration and Food For Thought nutrition education activity through a targeted survey measuring knowledge, positive lifestyle changes, attitudes towards cooking healthfully and leading a healthy lifestyle, and behavior changes focused around cooking skills or healthy eating of participants after having interacted with these programs.

Secondary goals were to identify reasons why these programs were not reaching maximum involvement, the specific strengths of these programs, opportunities for improvement, and to act as a trial run for future repetition of assessment.

## METHODS

- A short, focused survey was conducted via phone call 0-2 days after appointments. Participants were made aware that information collected would remain anonymous and not affect their future involvement with Metro Caring.
- Participants who reported not interacting with either program were asked to share impressions; if an individual participated in either program, the remainder of the 11 question survey was completed.
- Responses were recorded verbatim on an Excel sheet during the conversation. Clarifications were provided and responses remained neutral.
- Answers were coded into categorical groups, based on common themes of the free-answer responses. Likert Scale questions were analyzed conservatively with an opt out option for each question provided. Paired t-test analysis was implemented for appropriate questions.
- Statistics from the prior fiscal year identified 8,625 unduplicated households receiving food from April 2016-March 2017. Using this number as a baseline, the target sample size was 370.



## RESULTS & DISCUSSION

- 624 calls were attempted. 122 people did not complete the survey due to limitations in language, time, or interest. 181 surveys were ultimately collected, 94 participated in at least one of the programs.
- Figure 1: Almost a third of the individuals who did not participate were not aware that the programs existed; volunteers were encouraged to engage more with the community members in the welcome center. This change was evaluated at the end of the survey and successfully resulted in increased participation without an increase in negative feedback.
- Figure 2: A majority of participants reported that they would "most likely" or "definitely" recommend the experience to a friend.
- Figure 3: Following the recipe and activity, participants' attitude towards healthy eating experienced a significant ( $p=1.35 \times 10^{-12}$  and  $p=0.008$  respectively) improvement in stage of change.
- Figure 4: Development of skills was analyzed via level of comfort in being able to teach the information provided by the programs to a friend. A non-significant ( $p=0.769$ ) difference was found between individuals who indicated that they had these skills prior to interacting with the programs and those that indicated they gained these skills as a result of the programs. Interpretation of this finding may indicate that the participants who did not previously have this skill had been brought up to the same level as those who did.
- Figures 5 & 6: Behavior change was measured via the analysis of specific goals made as a result of participating in the programs. More than a third of people did not create a goal for behavior change as a result of these programs, even when having interacted with the activity; volunteers may need to provide more assistance in this area, discussing and encouraging goal formation during their interactions. Individuals who indicated additional means which would help them increase their confidence in ability to achieve their goals named many services already provided by Metro Caring.

## LIMITATIONS

Surveys were limited to individuals with a listed phone number, available between 9am and 8pm on weekdays during which phone call surveys occurred, and ability to use conversational English or access to a family member to translate.

## REFERENCES

For full paper and references please visit QR code link.



## ACKNOWLEDGEMENTS

We would like to acknowledge Lannea Hand RDN and Justin Batchelder DTR for substantial contributions to the conception and design of the project.

## DISCLOSURES

The authors have no relevant financial relationships to disclose.