



# ST. CATHERINE UNIVERSITY

## IMPROVING REFUGEE HEALTH AND SOCIAL CONNECTEDNESS THROUGH CHURCH GARDENS

Meghan R. Mason, MPH

Kari Hartwig, DrPH, MA

## Presenter Disclosures

Meghan R. Mason

- (1) The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:

**No Relationships to disclose**

## Background

- Refugee and immigrants in the United States experience many stressors
- Past traumas of immigrants and refugees may also surface in this transition
- Community gardens have been shown to be therapeutic (physical and mental health benefits to alleviate stressors)

Murray, K.E., Davidson, G.R., and Schweitzer, R.D. (2010)

Maller, C. et al. (2006)

Pitt, H. (2014)

Pretty, J., et al. (2005)

## Background

- Shortage of community gardens in Twin Cities
- Many refugees are coming from an agricultural background
- Arrive Ministries is a faith-based resettlement program
- We have a lot of churches with large lawns
- Gardens for refugees serve church desires to meet outreach mission



## Program description

- Arrive Ministries – refugee placement agency in the Twin Cities of Minneapolis–Saint Paul connected refugees with faith–based community gardens
- In 2014, there were 19 churches serving more than 1,200 refugee and immigrant families
- Finding the right church garden for the right immigrants/refugees takes place through:
  - Karen Organization of Minnesota
  - Bhutanese Community of Minnesota
  - CAPI

## Objective of Program Evaluation

- What was the impact of the church-based gardening project on the health of the refugee and immigrant gardeners participating in the program?
- Social connectedness
  - Physical health
  - Mental health
  - Economic benefits



## Evaluation

- We purposefully selected 8 of the 19 church gardens based on:
  - At least 2 years of participation (churches)
  - Size of garden (small, medium, large)
  - Primary languages of gardeners
    - Karen
    - Nepali
  
- Evaluation:
  - Surveys July and September 2014
  - Focus groups – September & October
  - Interviews with church volunteers – after harvest

4080.0 Practicing faith  
and improving  
community health  
through refugee church  
gardens  
Tuesday 10:30–11:30am

## Survey Tool

- Vegetable intake
- Hunger
- Food subsidy
- Depression
- Social connectedness between gardeners and church members





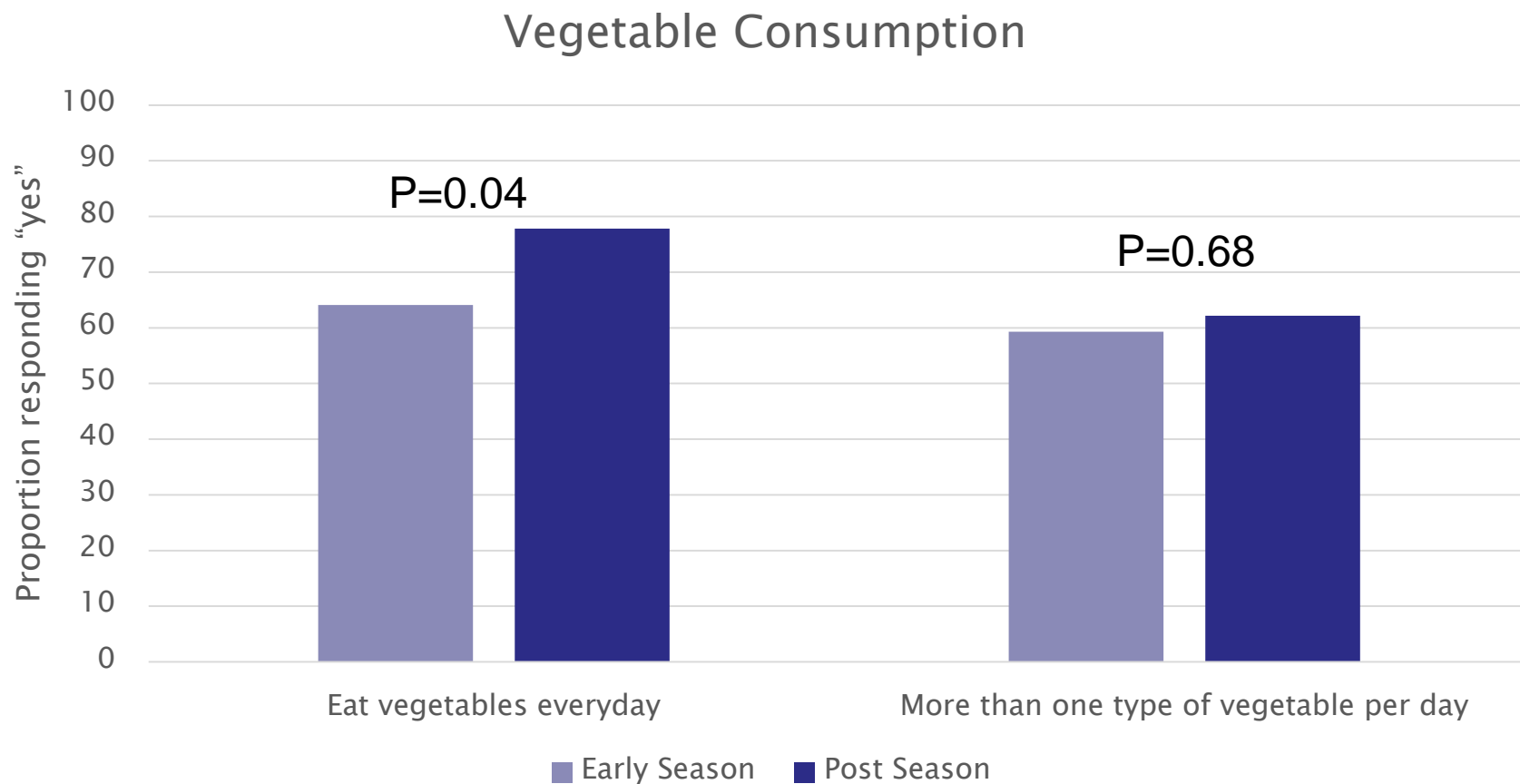
## Survey Response Rate

- 44% (n=94) – early season, 45% (n=96) – post-season
- 64% of all gardeners (n=214) completed both surveys
- Surveys were translated into Karen, Nepali, and provided in English



Characteristics	Karen N=67	Bhutanese N=20	Hmong N=4	Lisu N=8	Total N=98
Average Age (range)	39 (16 – 69)	40 (25 – 80)	57 (47 – 63)	33 (30 – 38)	40 (16–80)
% Female	70%	40%	100%	63%	65%
Average Family Size (range)	6 (2 – 13)	4 (1 – 7)	4 (1–8)	4 (3–6)	5.5 (1–13)
Years in U.S. (range)	5.5 (1 – 20)	4 (0.6 – 6)	25 (18 – 36)	3.5 (0.7 – 7)	5.7 (0.6–36)
% Speak English pretty well or fluently	9%	50%	0	14%	18%
Avg. years gardening BEFORE U.S. (range)	11 (0 – 60)	16 (0 – 50)	12 (0 – 30)	17 (3 – 25)	2 (0–60)

# Vegetable Intake



## Hunger

- Hunger: Early-season questionnaire only
  - “Was there a time in the past month when there was no food in the house?”
  - “Did any individual go to bed hungry in the past month?”
- Only three individuals (4%) responded affirmatively
  - Family sizes of 4, 5, and 11

## Food Subsidies

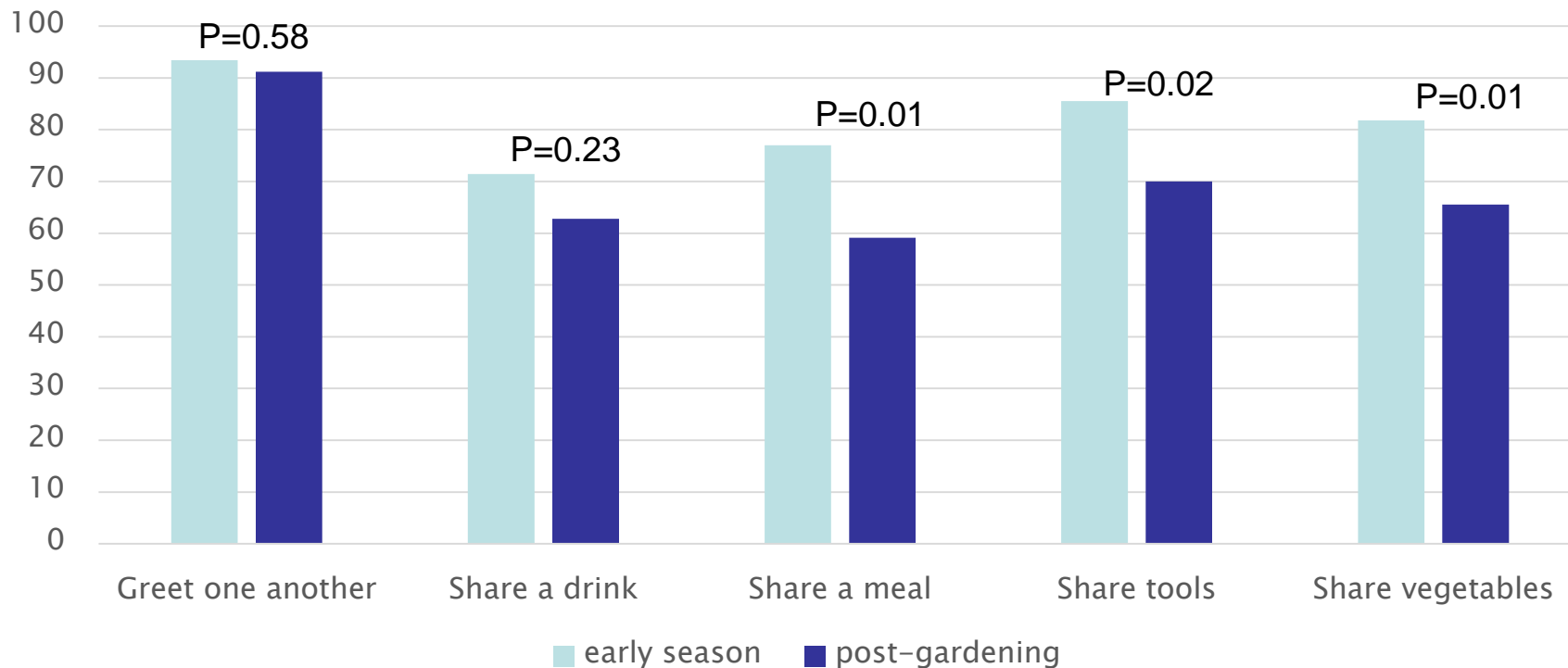
- Food subsidies
  - Most received food subsidies (84%)
  - Same in early-season and post-season survey
- Cost savings
  - 34% estimated \$25–50 saved
  - 27% estimated \$50–100 saved

## Depression

- Over the past two weeks, how often have you been bothered by...
  - Little interest or pleasure in doing things?
  - Feeling down, depressed, or hopeless?
- If at least “more than half of the days” → recommended for further depression screening
  - Post-gardening survey (18.8% among those who answered)
  - 16 Individuals - 9 Karen, 7 Lisu
  - Respondents did skip this question (21.1%)

## Social Interactions

Percentage of respondents participating in these activities with church members or neighbors “sometimes/often”



## Social Interactions

- Larger gardens v. Small & Medium gardens:
  - smaller decreases in the proportion of participants responding “sometimes/often” for the social interactions
- The presence of church members gardening at the sites v. no church gardeners
  - smaller decreases in the proportion of participants responding “sometimes/often” for the social interactions
- Homogenous v. Heterogeneous gardening site didn't influence social interaction



## Discussion

- Physical health: Vegetable consumption increased
- Decrease in interactions between church members/neighbors and gardeners over time:
  - Immigrants and refugees became more independent
  - Technical support available at the beginning of the season
  - Gardeners came on their own schedule
- Did not have same participants at both survey points
- Mixed method was useful in explaining differences in survey data
- 97% would recommend it to a friend or another new immigrant

## Conclusion

- Refugee organizations should consider community gardens as a mechanism for improving health
  - Physical health value (survey)
  - Mental health need (survey), value (focus groups)
- Community garden grants that are inclusive of refugee and immigrant populations
  - We do not believe it needs to be at churches only
- New networks for refugees/immigrants:
  - Despite decreases in social interactions between start and end of season, a majority of gardeners experienced the interactions at least sometimes/often at both times

## References

Murray, K.E., G.R. Davidson, and R.D. Schweitzer, *Review of refugee mental health interventions following resettlement: best practices and recommendations*. The American Journal Of Orthopsychiatry, 2010. 80(4): p. 576–585.

Maller, C., et al., *Healthy nature healthy people: “contact with nature” as an upstream health promotion intervention for populations*. Health promotion international, 2006. 21(1): p. 45–54.

Pitt, H., *Therapeutic experiences of community gardens: putting flow in its place*. Health & Place, 2014. 27: p. 84–91.

Pretty, J., et al., *The mental and physical health outcomes of green exercise*. International journal of environmental health research, 2005. 15(5): p. 319–337.

## Thank You

Meghan R. Mason, MPH, ABD  
St. Catherine University  
[mrmason@stkate.edu](mailto:mrmason@stkate.edu)

Kari Hartwig, DrPH, MPH  
St. Catherine University  
[kahartwig@stkate.edu](mailto:kahartwig@stkate.edu)

4080.0 Practicing faith and  
improving community health  
through refugee church gardens  
Tuesday 10:30–11:30am

