



COMPREHENSIVE  
CANCER CENTER

Cancer Support Now  
10th Annual Living With & Beyond Cancer Conference  
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# **The Southwest Harvest for Health Study**

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THE UNIVERSITY OF NEW MEXICO COMPREHENSIVE CANCER CENTER



# Overview of Presentation

- Lifestyle Medicine / Recommendations
- Southwest Harvest for Health Pilot Study
  - Study design
  - Results
- Future Directions

# Background

# Lifestyle Medicine

- **Goals of Lifestyle Medicine \***
  - To remain healthy as long as possible
  - To remain independent as long as possible
  - To live as long as possible

\* Precision Medicine in Lifestyle Medicine:  
The Way of the Future? Gray et al.,  
American Journal of Lifestyle Medicine

# Background

# Lifestyle Medicine

- Goals of Lifestyle Medicine \*
  - To remain healthy as long as possible
  - To remain independent as long as possible
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- **How do we achieve these goals?**

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# Background

# Lifestyle Medicine

- Goals of Lifestyle Medicine \*
  - To remain healthy as long as possible
  - To remain independent as long as possible
  - To live as long as possible
- **How do we achieve these goals?**
  - **Adopt and sustain a healthy lifestyle**

\* Precision Medicine in Lifestyle Medicine:  
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# Background

# Healthy Lifestyle

- **What is a Healthy Lifestyle?**
  - Good nutrition
  - Physical activity
  - Healthy weight
  - Limit alcohol consumption
  - Avoid smoking and tobacco products

# Background

# Healthy Lifestyle

- **What is a Healthy Lifestyle?**
  - Good nutrition
  - Physical activity
  - Healthy weight
  - Limit alcohol consumption
  - Avoid smoking and tobacco products
- **Same recommendations for cancer prevention and control (after a diagnosis)**

**Background**

# **Outstanding questions**

How do we adopt and sustain a healthy lifestyle?

How do we get successful health promotion programs  
to more people?





## SOUTHWEST HARVEST FOR HEALTH

# Background

# Vegetable Gardening

- Health benefits
  - Healthier diet
  - Healthier body weight
  - More physically active
- Well-being benefits
  - Enhanced self-esteem
  - Increased independence
  - Increased zest for life
- Additional benefits
  - Potential for sustainability (variety of tasks, natural motivation)
  - Holistic approach to modifying lifestyle behaviors

# Background

## Harvest for Health

- Home-based, mentored vegetable gardening intervention
- Pairs cancer survivors with a Master Gardener from Cooperative Extension
- Survivor/Master Gardener pairs plan and plant 3 gardens during the year, and work together to harvest, rotate plantings, & trouble shoot problems

# Background

## History of Harvest for Health

- Developed in Birmingham, Alabama by Dr. Wendy Demark-Wahnefried, PhD, RD
- Community-based partnership
- 3 (smaller) pilot studies completed
- Large, state-wide study is on-going



# Harvest for Health Preliminary Results



- Increased vegetable intake
- Increased physical activity
- Improved physical functioning
- Improved quality of life

And equally important ...

- High satisfaction from participants and master gardener's

Harvest for Health

*Growing the Program*

# Harvest for Health

## Expanding the Program

- Cooperative Extension System (Extension)
  - Nationwide Land-Grant University System
    - New Mexico State University
  - Translate research into action
    - Bring science to the communities
  - Recruit and train volunteers to help deliver research-based information & education

# Harvest for Health

## Expanding the Program

- Extension Master Gardener Program
  - An examples of an educational outreach program
  - Exists in each U.S. state and territory
  - Volunteers receive training in research-based gardening education
  - **Perform community-service in return for their training**



# Next steps ...

**Adapt Harvest for Health  
for the unique culture  
and environment  
of the Southwest**

# Study Design

## Study Goals

- To adapt Harvest for Health to the drastically different climate and growing conditions of New Mexico\*, using recommended adaptation frameworks
- To pilot test the adapted intervention, Southwest Harvest for Health,

\* Blair et al., Southwest Harvest for Health: Adapting a mentored vegetable gardening intervention for cancer survivors in the southwest. Contemporary Clinical Trials Communications 2021

# Study Methods

## Recruitment

### CANCER SURVIVORS

- Targeted accrual = 25
- Recruitment methods
  - Cancer Centers
    - Referrals from oncologists, navigators
  - Cancer Support Groups
  - Word of mouth

### MASTER GARDENERS

- Targeted accrual = at least 25
- Recruitment methods
  - (UNM) Presentations at community gardens, Extension
  - Flyers and word of mouth
  - Project listed as an approved volunteer opportunity

# Study Methods

## Eligibility Criteria

### CANCER SURVIVORS

- 50 years and older
- Bernalillo or Sandoval Counties
- Cancer diagnosis -- any type, any stage
- <5 F&V servings/day;  
<150 minutes/week of exercise
- Able to participate in daily light physical activity
- Adequate space, sunlight, & running water

### MASTER GARDENERS (MG)

- Certified MG from Bernalillo or Sandoval County MG Program
- Willing to mentor a cancer survivor one-on-one for 9 months

# Study Methods

# Intervention Outcomes

- Intervention feasibility
  - Recruitment – Will people be interested in joining the study?
  - Retention – Will they stay in the study or drop out?
  - Satisfaction – How satisfied were they with the program?

## Study Methods

# Intervention Outcomes

- Intervention feasibility
  - Recruitment – Will people be interested in joining the study?
  - Retention – Will they stay in the study or drop out?
  - Satisfaction – How satisfied were they with the program?
- **Vegetable and fruit servings per day**
- **Physical activity**

# Southwest Harvest for Health

## Study Methods

# Southwest Harvest for Health

- **1. Meet & Greet Event**
  - Cancer Survivors and Master Gardeners meet
  - Receive study notebook and small gardening supplies
  - Start planning spring garden



## Study Methods

# Southwest Harvest for Health

## ▪ 2. Study Notebook

- Study Information
- Safety Tips
- Getting Started & Resources
  - Setting up raised bed or containers
  - Helpful resources from NMSU Master Gardener Program \*
- Garden Plans & Journal
  - Which vegetables grow best, by season

[https://aces.nmsu.edu/pubs/\\_h/](https://aces.nmsu.edu/pubs/_h/)

# Study Methods

## Harvest for Health

### 3. Gardening Supplies



# Study Methods

## Harvest for Health

### 3. Gardening Supplies





# Study Methods

## Southwest Harvest for Health

- **4. Master Gardener Mentor**
  - Communicate 2x per month
    - Home visit
    - Telephone
  - Plan and plant 3 seasonal gardens
  - Harvest, rotate plantings, & trouble shoot problems



# Study Methods

## Southwest Harvest for Health

- **4. Master Gardener Mentor**
  - Communicate 2x per month
    - ~~Home visit~~
    - Telephone
  - Plan and plant 3 seasonal gardens
  - Harvest, rotate plantings, & trouble shoot problems



# Results



**SOUTHWEST HARVEST  
FOR HEALTH**



## Results

# Recruitment and Retention

### CANCER SURVIVORS

- 30 participants enrolled
- 100% retention

### MASTER GARDENERS

- 34 certified MGs and 4 interns
- 79% retention

## Results

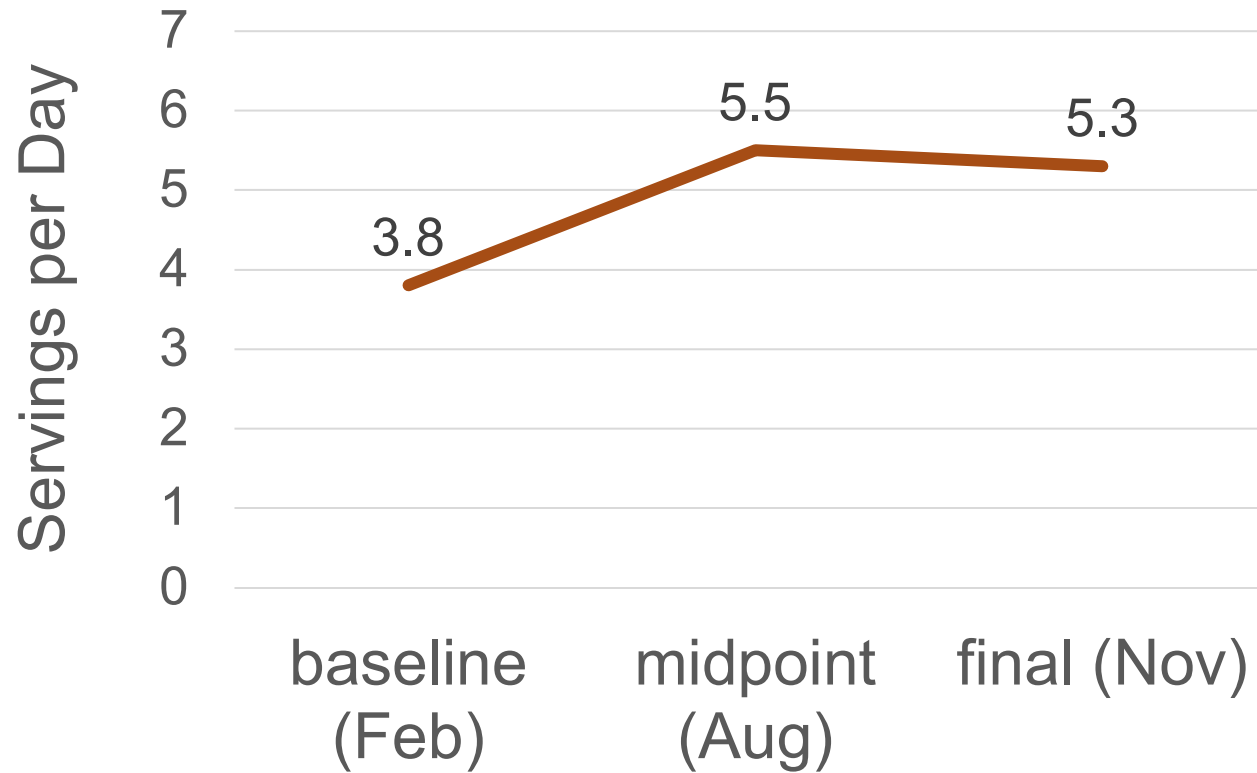
# Characteristics of study participants

Characteristics	Average (range) or Percentage
Age	68 years (50 to 83)
Female	70%
Good to excellent health	83%
Cancer Type	
Breast	37%
Prostate	20%
Lung	13%
Other	30%



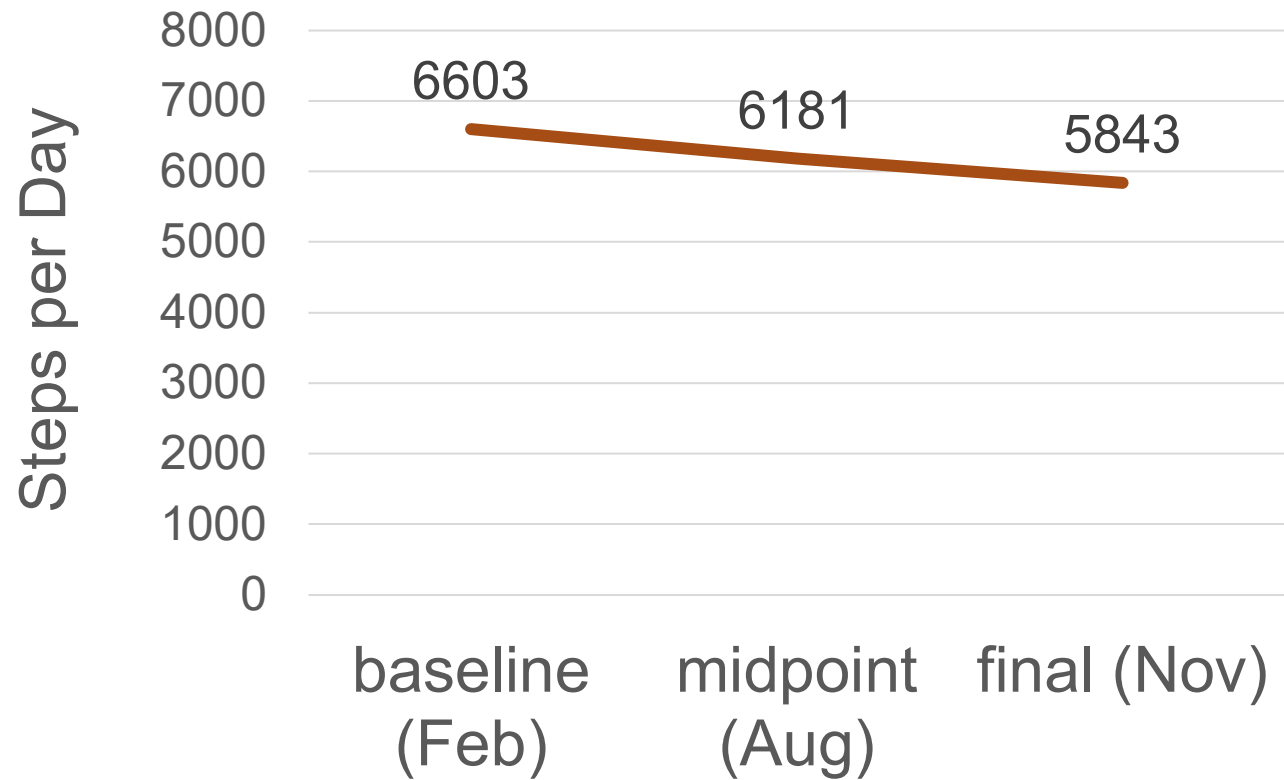
# Results

## Fruit & Vegetable Intake



# Results

## Physical Activity



## Results

# Impact on Diet and Physical Activity

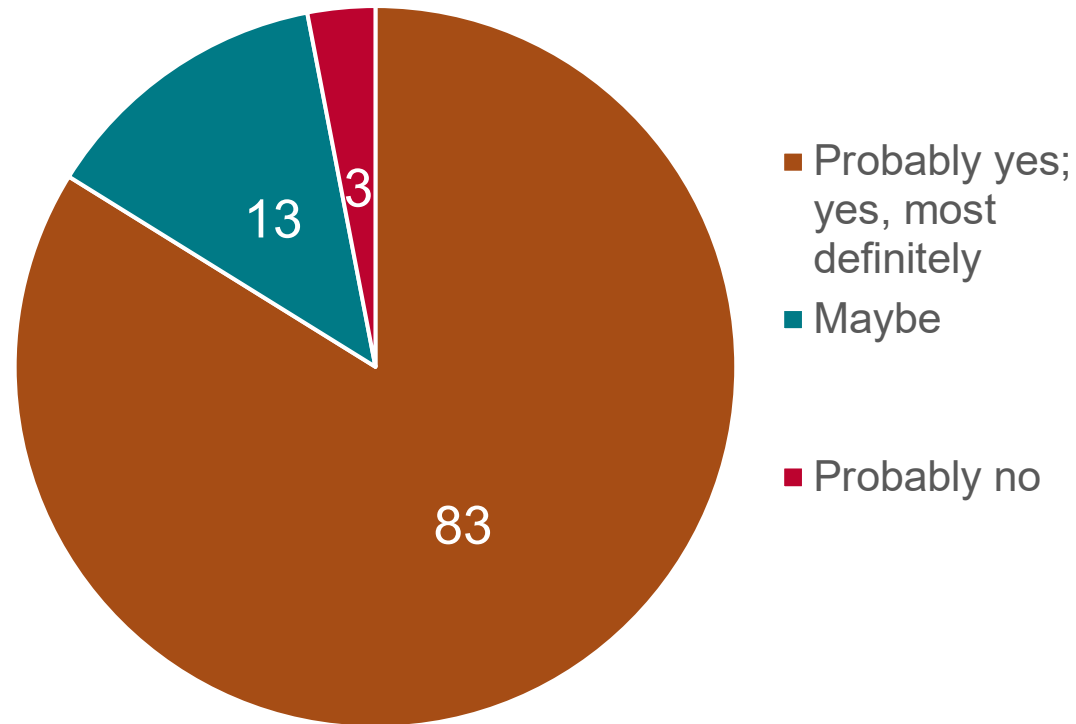
Did your garden motivate you to...	Average Score (scale 1 to 10)
Eat a healthier diet	8
Eat more vegetables	8
Try new vegetables	7
Be more physically active *	8

\* Yard work, walking, yoga, exercise class/video

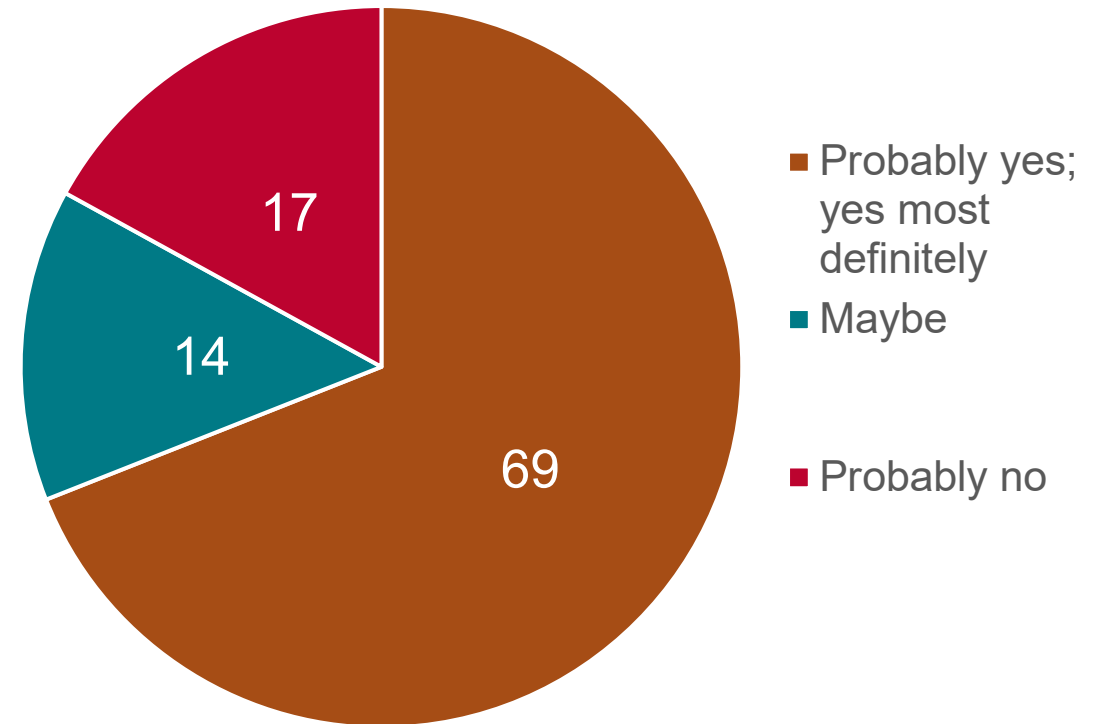
## Results

# Study participants – Future Plans

DO YOU PLAN TO CONTINUE THE GARDEN AND PLANT ON YOUR OWN?



DO YOU PLAN TO EXPAND YOUR GARDEN?



## Results

# Characteristics of Master Gardeners (MGs)

Characteristics	Average or Percentage
Age (years)	70
Female	83%
Good to Excellent Health	92%
# years as certified MG	3

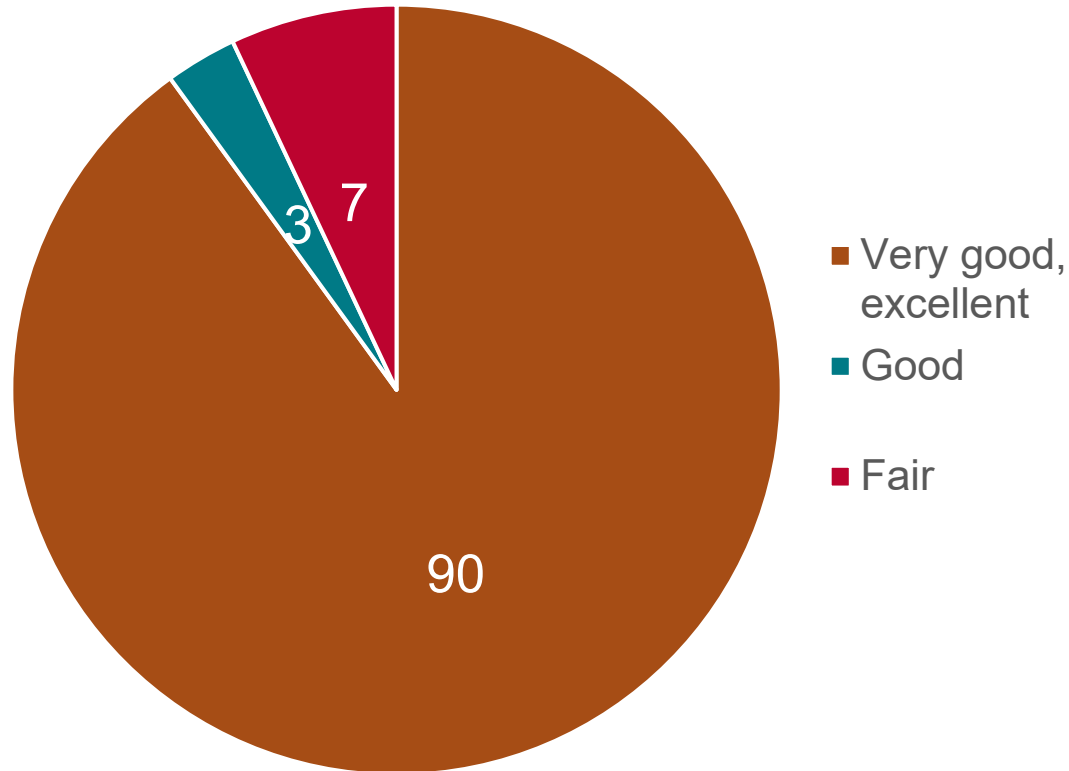
## Results

# Characteristics of Master Gardeners

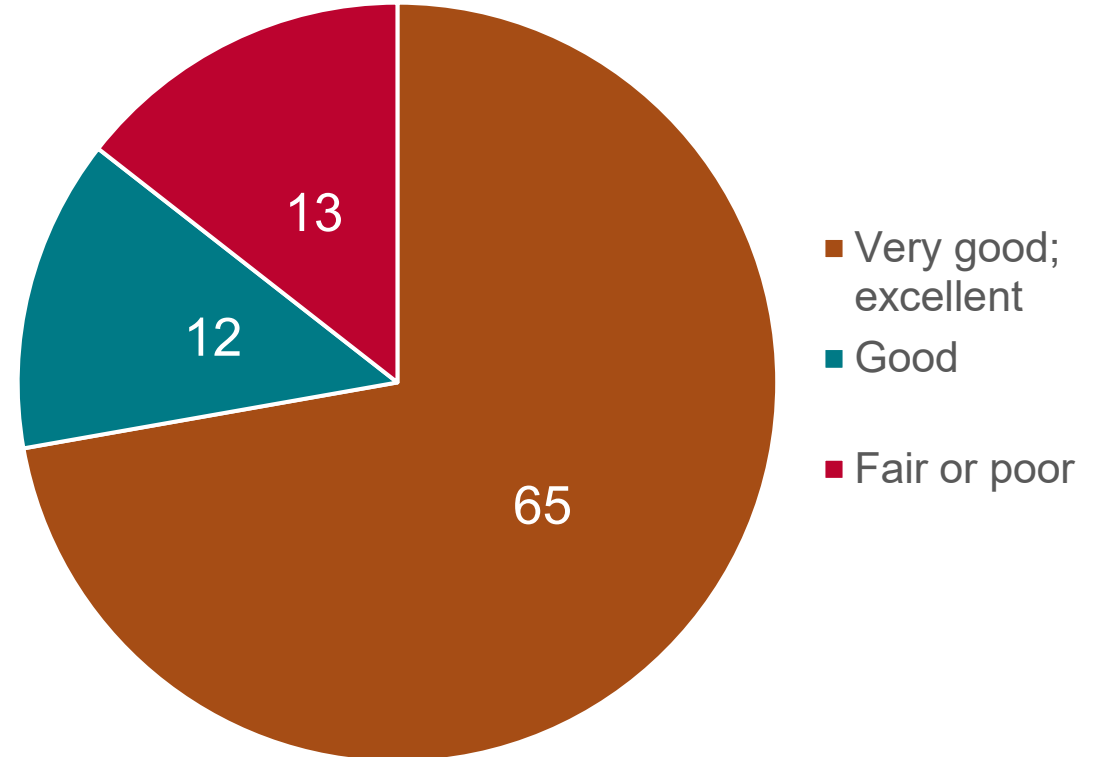
- Reasons for becoming a Master Gardener
  - Love of gardening
  - Interest in enhancing knowledge (science) of gardening
  - Opportunity to teach and volunteer / give back to the community
  - Better understand challenges of gardening in New Mexico

# How would you rate your experience with the SW Harvest for Health Study?

## CANCER SURVIVORS

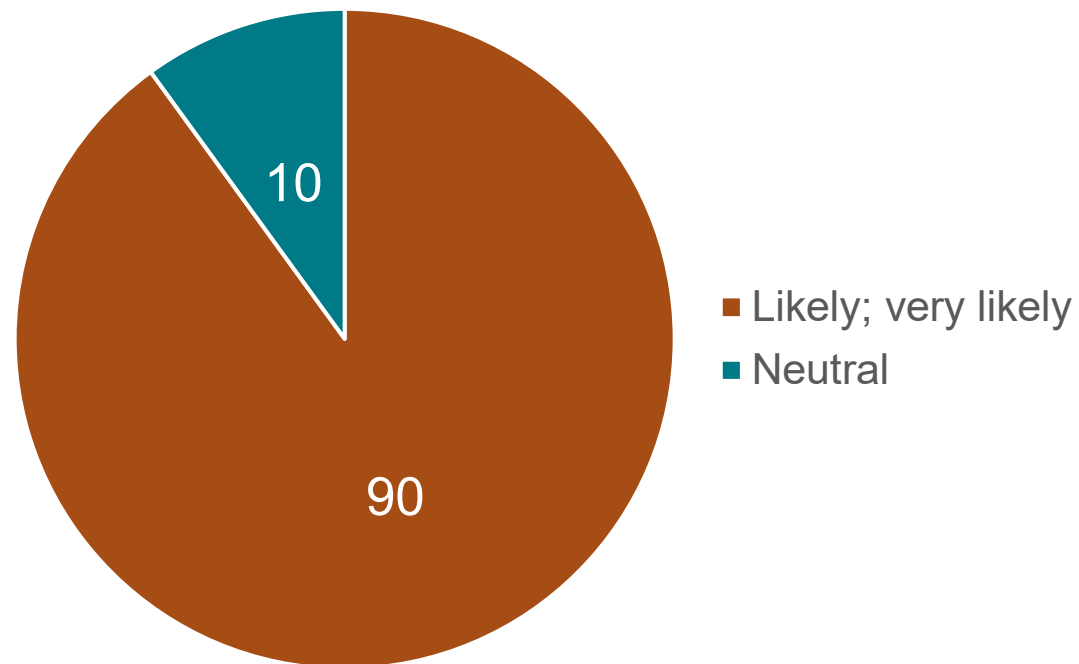


## MASTER GARDENERS

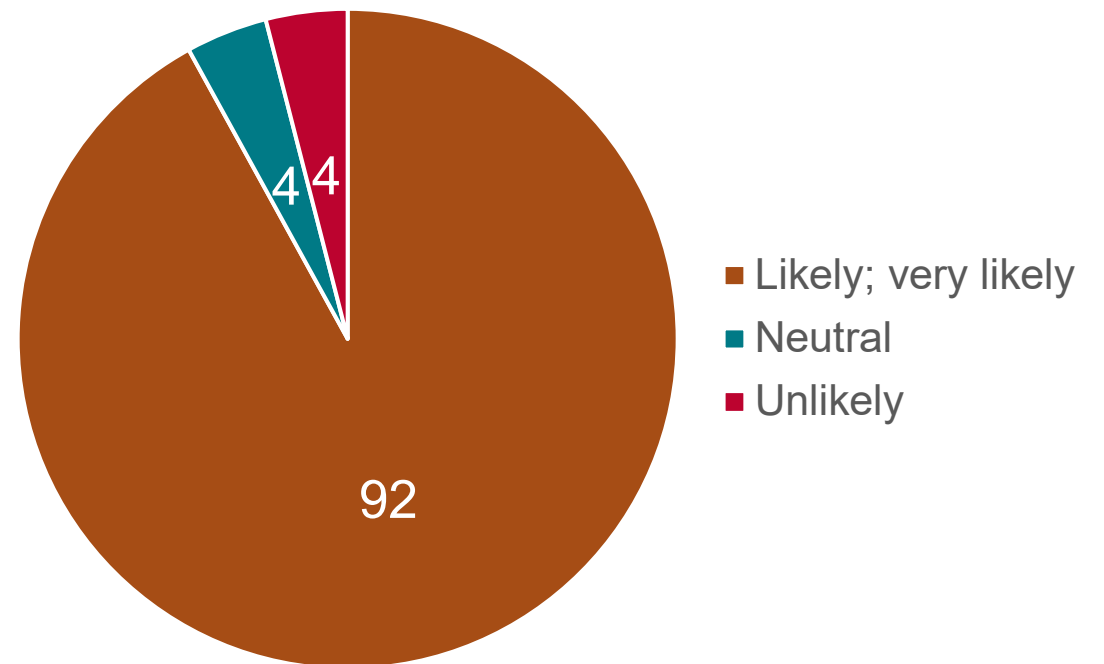


# How likely are you to recommend this program to someone else?

## CANCER SURVIVORS



## MASTER GARDENERS





# Impact of COVID-19 on SWH4H Pilot



# Impact of COVID-19 on SWH4H Pilot

- **\*\*\* No home visits; remote communication only**
  - Affect on garden, i.e., yield, success, other?
  - Affect on relationship?
  - Affect on satisfaction with the program?
  - Reduced access to new plants and seeds
  - Eliminated trip to neighborhood garden store

# Impact of COVID-19 on SWH4H Pilot

- **Stay-at-home orders/recommendations; social distancing; closed gyms, parks, swimming pools; high(er) risk study population**
  - Affect on diet?
  - Affect on physical activity?
  - Affect on quality of life?

# Quotes from study participants and master gardeners

## Results

# Positive Comments – Cancer Survivors

- “I had zero experience in growing anything. And so my master gardener was helpful. And when I saw my little tomatoes, I was excited and it was good to get a sense of growing my own food. And I tasted my tomatoes, and they were the best tomatoes in the world.”
- “...just share the value of the program. One, you get to learn how to grow things and be successful. Two, you’re growing your own vegetables. So you may be able to save some money. And three, you get to work with the soil. You get to work with the earth. So it’s good stuff all the way around”.
- “I am so grateful for the opportunity to participate in Harvest for Health. This was the perfect project during the COVID pandemic - watching the seeds grow and caring for the growing plants was really stress reducing and interesting. Thank you!”

## Results

# Positive Comments – Master Gardeners

- “This is an outstanding program that was hampered by COVID restrictions.”
- “I am incredibly grateful for the opportunity that this program provided.”
- “I am also a survivor - I can't tell you what a blessing it has been to be part of this research. Thank you!”
- “Please consider me if this program continues as both are near and dear to my heart. Having had close family members battle cancer and having my passion for gardening, I really would enjoy another opportunity to engage and mentor another participant.”

# Future Directions

- Analyses of interviews
- Expand partnership with NMSU Extension
- Expand to additional counties in New Mexico
- New Mexico as a model for other Southwest states
- Expand to other Southwest states

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# Thank you for your time!



Questions? Suggestions?

Please contact Cindy Blair → [CbBlair@salud.unm.edu](mailto:CbBlair@salud.unm.edu)