

Navajo Food Security Project

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NFS Project

Planning Phase



Local New Mexico Team



Preyanka Makadia, DO
Co-Principal Investigator

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Collaborator

Lydia Kim, MD, MPH
Consultant

Kelli Wilson Begay, MS, MBA, RDN
Interview Moderator



Washington Team + New Addition



Mandy Fretts, PhD
UW Principal Investigator



Cassandra Nguyen, PhD
Co- Principal Investigator



Tee Benally,
Research **MPH** Coordinator

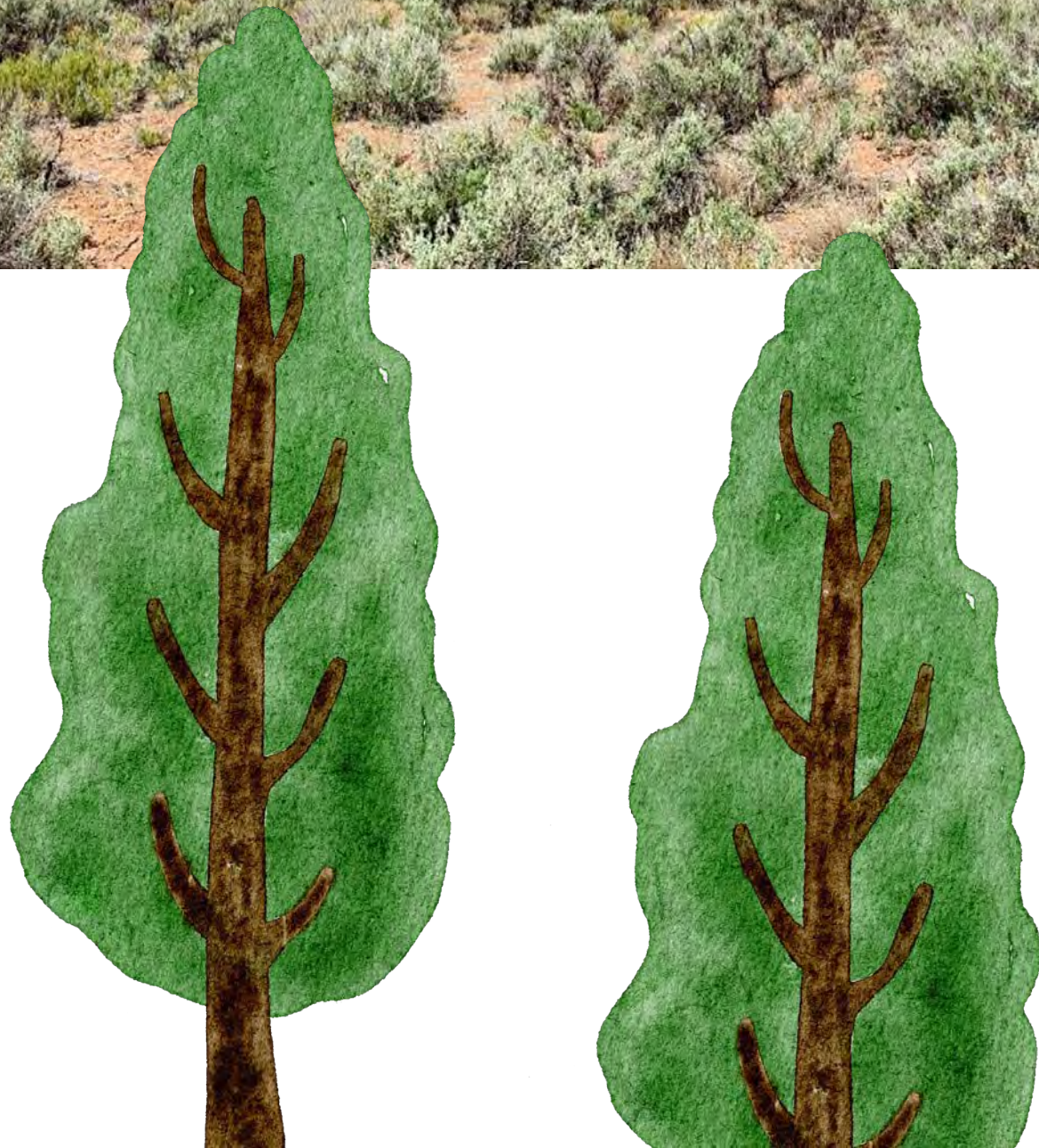


Johanna Salay, MD
Collaborator



Navajo Nation

- Largest AI reservation in the US , described as food desert
- 10 supermarkets across the NN reservation
- **Food sources:**
 - Gas stations, Convenience stores, Flea markets, Trading posts





Why Northern Navajo Medical Center?

- One of the 5 federal service units in Navajo Nation
- Discussion with providers at IHS NNMC
- Expressed concern that current FI screening procedure was stigmatizing
- Patients feeling uncomfortable or reluctant
- Develop and evaluate an alternative strengths based and culturally relevant screener






Research Project



Navajo Food Security



Phase I: Qualitative Cognitive Interviews

Objective:

- Develop a new food insecurity screening protocol by exploring the interpretations and preferences for questionnaire content among IHS adult patients during cognitive interviews.

Sample:

- Convenience sample of 25 patients at IHS Northern Navajo Medical Center

Data Collection:

- 20-minute semi-structured interviews

Data Analysis:

- Excerpt coding and discussion



Phase II: Integration Instrument Revision

Research:

- Use Table 2 to inform the revision of surveys for the quantitative phase
- Identify theme/ findings and discuss implications for survey procedures

Revise Instrument:

- Compile RedCap survey that includes existing and new screener questions



Phase III: Quantitative Reliability Study

Objective:

- Assess the equivalent-form reliability of the new protocol in comparison to the existing 2-item food insecurity screener

Sample:

- Convenience sample (n=25) patients at IHS Northern Navajo Medical Center

Data Collection:

- RedCap survey via tablet with varied ordering of questions

Data Analysis:

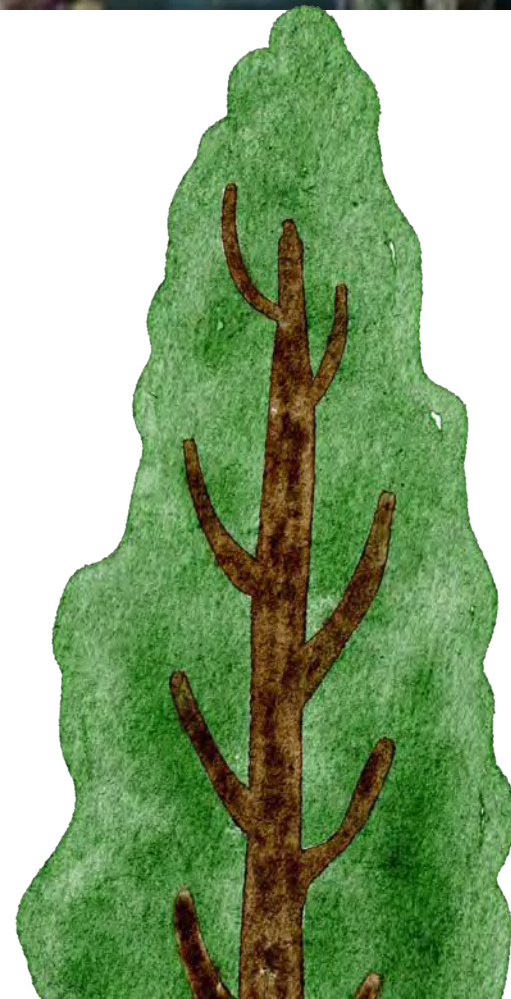
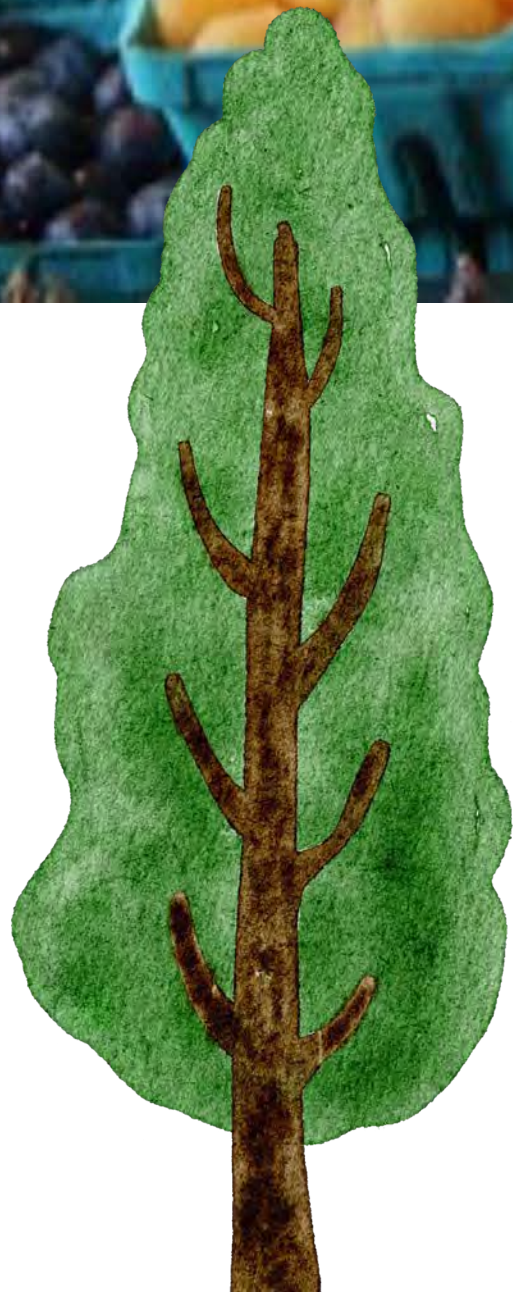
- Stata/ MP 14.0 , cross-tabulations and Pearson correlation coefficients

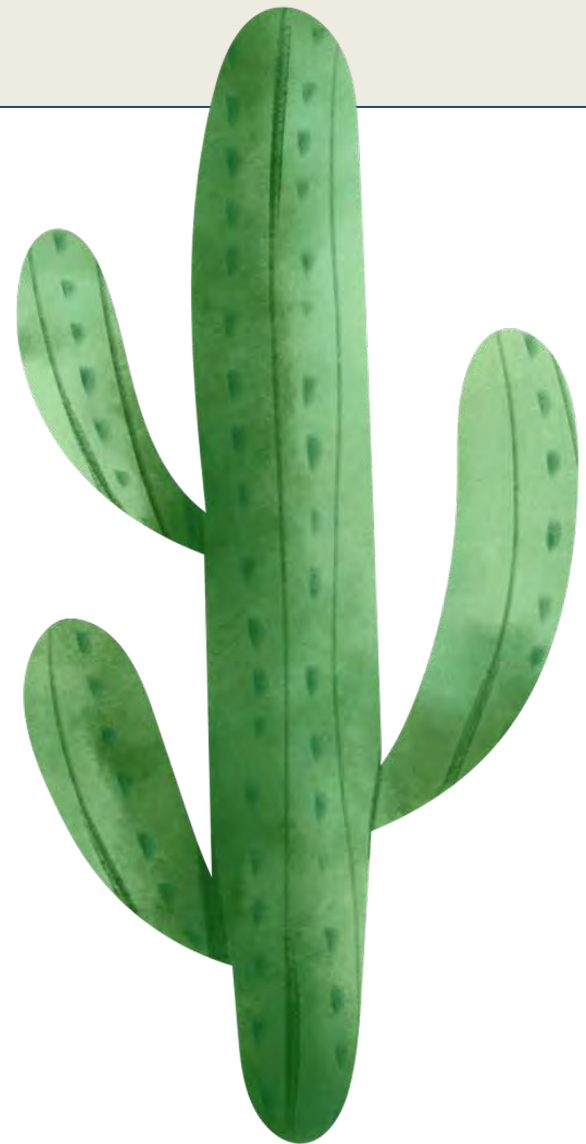
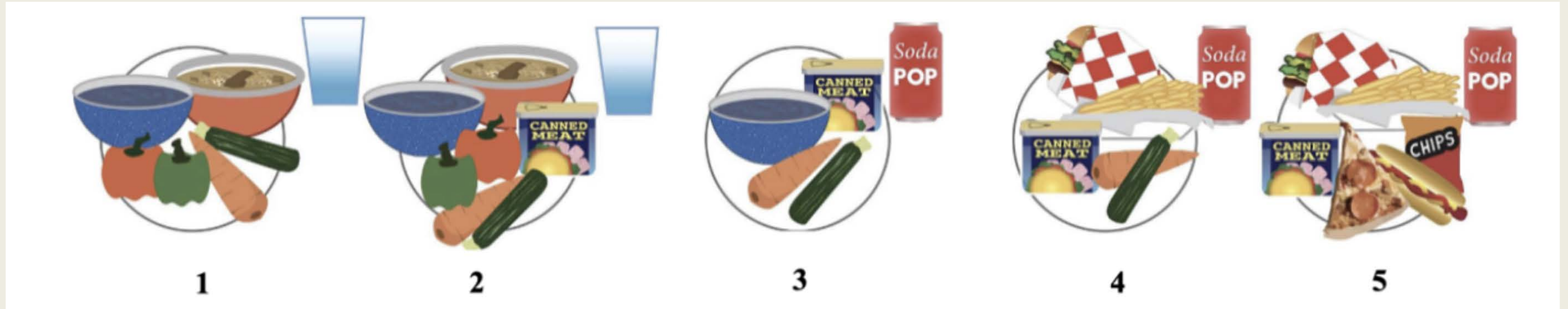




Previous Screener

1. In the past year, did you or your family worry that food would run out before you got money to buy more?
2. In the past year, the food we bought just didn't last and we didn't have money to get more. Is this....?





Alternative Screener: Pick a Plate

- 1 = Almost only healthy and traditional Southwest foods
- 2 = Mostly healthy and traditional Southwest foods with some convenience foods
- 3 = About equal amounts of healthy and traditional Southwest foods as convenience foods
- 4 = Mostly convenience foods with some healthy and traditional Southwest foods
- 5 = Almost only convenience foods
(Note: Traditional Southwest foods include: corn, mutton, greens, potatoes, etc. Convenience foods include: canned meat, instant noodles, fast food, and packaged snacks)



1



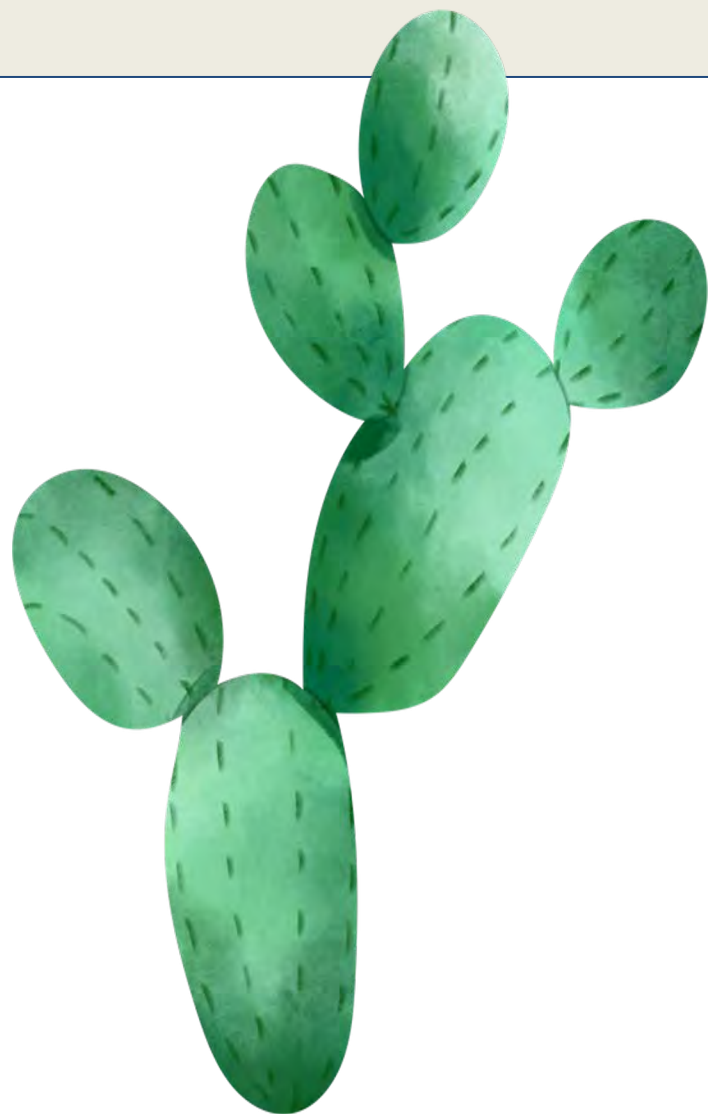
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Alternative Screener: Satisfaction Level

- 1 = Very Happy
- 2 = Happy
- 3 = Average
- 4 = Unhappy
- 5 = Very Unhappy



1



2



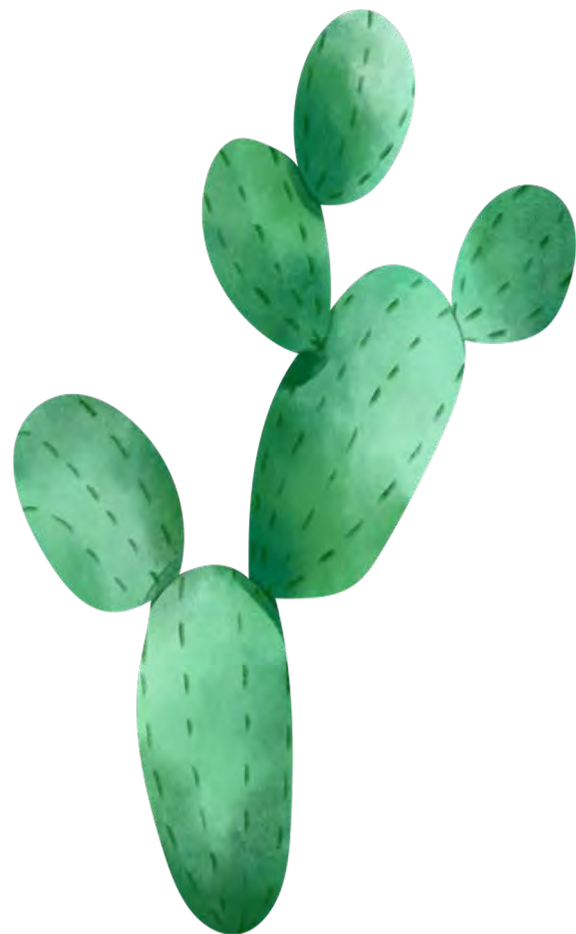
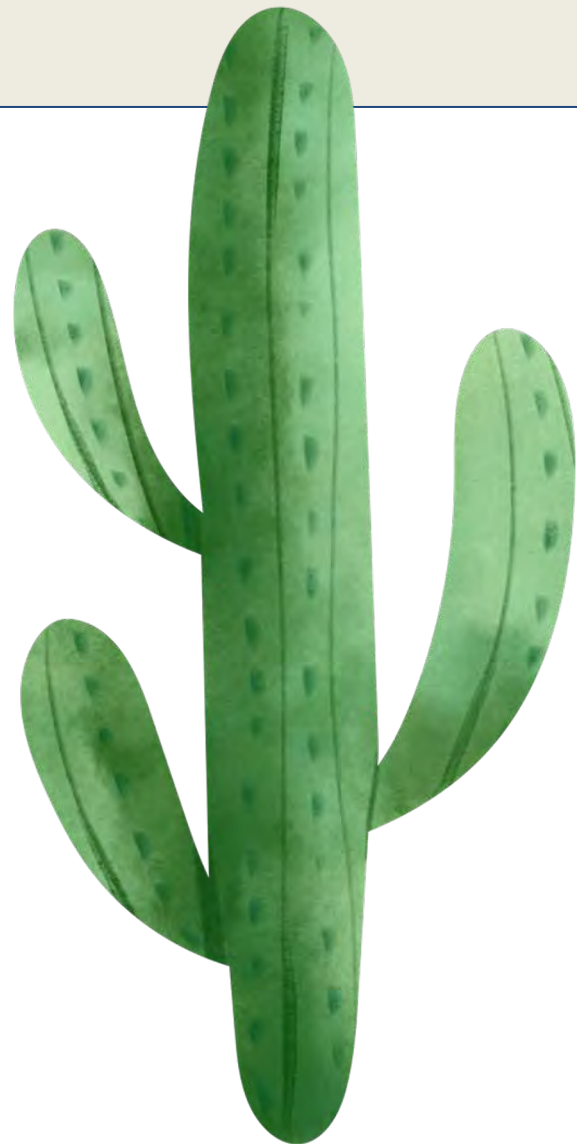
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Alternative Screener: Amount of Food



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Results

A watercolor illustration of various green leaves and a red flower. The leaves are in various shades of green and are scattered around the central text. The red flower is located on the left side of the image. The background is white.

Qualitative



Many participants had personal experience or knew people experiencing food insecurity

“I mean, we'll have enough, but at the very end, I'm squeezing pennies so I can buy the food.”





The words in the existing 2-item food security screener might be confusing or produce shame

“Is this often true, sometimes true... I don't know...When I saw the past year, I'm like, the past year, I don't remember...”

“There was a word, worrying, that got me worried from the money.”





Patients wanted providers to take their time to discuss food security with sensitivity

“Depending the way his tone is and attitude are, it's...They don't say it as a kind way. They just kind of stress you.”



The background features a watercolor-style illustration of various green leaves and a single red flower. The leaves are scattered around the central text, with some large, detailed leaves like a Monstera and others that are more delicate and smaller. The red flower is located on the left side of the image. The overall aesthetic is soft and natural.

Quantitative





Results & Correlation

- Over 70% of participants responded affirmatively (either “often true” or “sometimes true”) to the existing food insecurity screening questions, indicating risk of food insecurity.
- There was a weak statistical relationship between the new screening questions and food insecurity based on the existing screener





Discussion

- The existing and new screeners were not strongly associated
 - Questions may be tapping two unique concepts
 - Prevalent food access and food insecurity issues
 - Interest in efforts to change food security on Navajo Nation
 - Ultimately: do we need to screen based on food security?
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Ahéhéé, Thank You!

Medical Students:

Kody Becenti & Lekha

Chesnick

NNMC Collaborators:

Shondiin Cardenas, Chris

Percy & Jojo Salay