

Enhanced Food Safety Program Impact Using a Regional Approach to Program Evaluation

Introduction:

In 2016, a group of extension food safety specialists and educators from several North Central states joined forces to form a regional Extension Food Safety Team.

This regional team has created and implemented an evaluation program for home food preservation training as one of its first projects. Because most home food preservation programs are developed and evaluated at the state level using unique tools, little data exists on their effectiveness across a region.

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Methods:

- Studied existing home food preservation education evaluation tools used in team member states
- Consulted with extension evaluation experts
- Team developed:
 - A regional post-workshop evaluation tool
 - A three- to six-month follow-up survey
 - An evaluation protocol
- New tool characteristics:
 - Cover a variety of home food preservation education topics
 - Apply to various teaching methods — in-person, online, hybrid
 - Capture information on the county and state where training held, so data can be used at local, state and regional levels
- Extensive user review by state extension food safety specialists and regional/county extension educators/agents for:
 - Understandability
 - Usefulness of impact data
- Received Institutional Review Board approval in each pilot state
- Piloted in five states in 2017
 - Home food preservation educators in each state trained in evaluation tool use
 - Obtained workshop participant contact information for follow-up
- All data from post-workshop evaluations entered into an online survey platform (Qualtrics, Provo, UT)
- Participants emailed a link to follow-up evaluation form three to six months after workshop
- Regional team developed a website to which survey participants were directed. Website includes:
 - Project materials
 - State resources (See Figure 1)



Figure 1: Screenshot of regional food safety website (<https://www.ag.ndsu.edu/nrcfoodsafety/>)

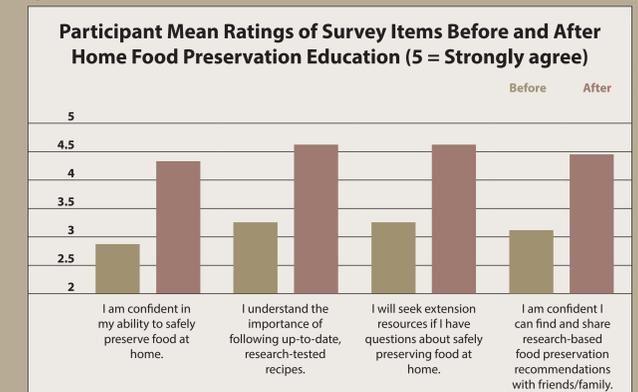
Results:

- In 2017, more than 1,600 participants across five states completed the evaluation tool:
 - Indiana — 62
 - Kansas — 210
 - Michigan — 915
 - Missouri — 455
 - North Dakota — 78
- Workshop participants learned about:
 - Boiling water canning — 28% of respondents
 - Pressure canning — 17%
 - Jams, jellies and sweet spreads — 13%
 - Pickling — 11%
- Participants attended workshops that lasted:
 - One–three hours — 89%
 - More than three hours — 7%
 - Less than one hour — 5%
- Most participants in the evaluated workshops — 96% — said they learned new information and indicated significant increases in confidence in many areas (See Figure 2)
- Workshop participants with the least self-reported experience in home food preservation indicated the greatest benefit from workshops
- A subset of workshop participants completed a three-month follow-up evaluation (n=201) and strongly agreed or agreed that:
 - I have changed my food preservation practices to ensure food safety — 84%
 - I have used extension home food preservation resources — 89%
 - I always practice safe food preservation skills at home — 97%
 - I am more confident in my ability to preserve safe food — 95%
 - I have shared research-based home food preservation information with family and friends — 82%

Conclusions:

- Common evaluation tools allowed demonstration of impacts across multiple states in region
- After collecting 2017 data, decided to continue collecting regional data due to value of impact reports
- Revised post-workshop evaluation tool for better comprehension
 - Used updated tools during 2018 home food preservation workshops

Figure 2



Tips for regional program evaluation success:

- Involve a mix of state-level food safety specialists and regional/county extension agents or educators
- Represent a number of different states on the team
- Involve both extension evaluation experts and food safety personnel in early development discussions and tool review
- Extensively pilot test evaluation tools
- Provide detailed and clear instructions to evaluation tool administrators
- Use an online data collection and analysis system



Figure 3: Assortment of canned food
Source: https://nchfp.uga.edu/multimedia/can_gallery/pages/canned_group_2.html



Figure 4: Wiping the jar rim clean
Source: https://nchfp.uga.edu/multimedia/can_gallery/pages/wiping_jar_rim.html