

# FACTS AND MYTHS OF FOOD SAFETY MESSAGING

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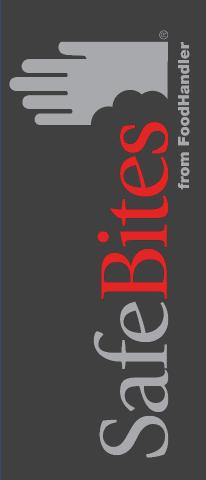
ELLEN SHUMAKER, PHD

DIRECTOR OF SAFE PLATES PROGRAM AT NORTH

CAROLINA STATE UNIVERSITY



#### MEET OUR FOOD SAFETY EXPERT





Kevin Roberts, PhD

#### **MEET OUR PRESENTER**





Ellen Shumaker, PhD

#### **SAFE PLATES**



- Evidence-based food safety programming and resources for retail, community and home-based food safety
- Incorporate the best science available
- Videos, social media, articles, inperson trainings



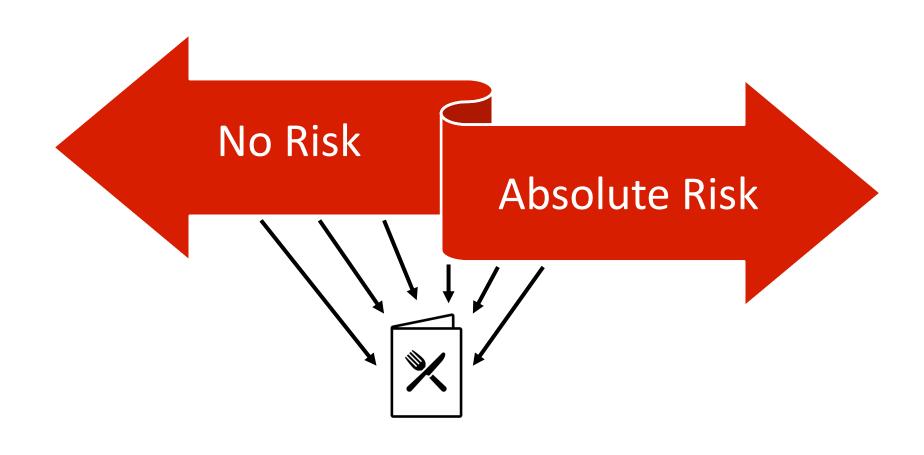
#### **OBJECTIVES**

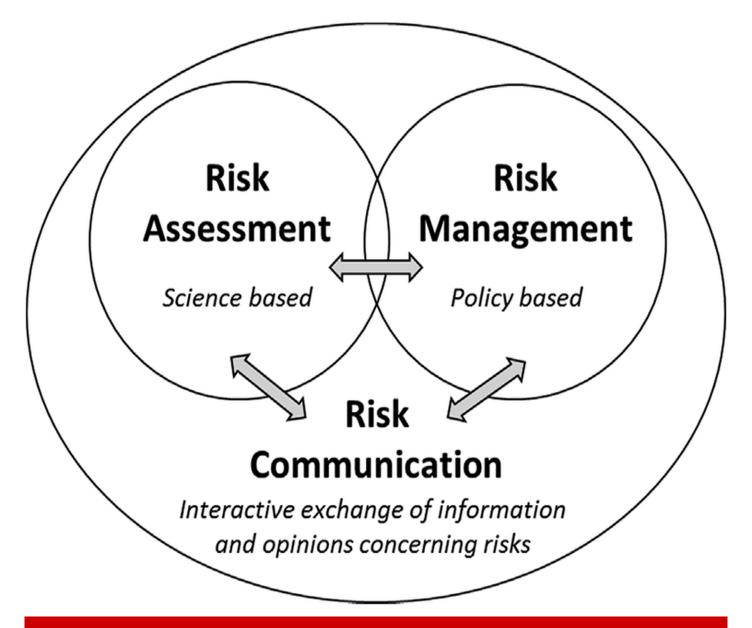


- Define the role that risk communication can play in the overall food safety strategy of the food service operation
- Discuss the role of food safety culture in shaping employee and organizational behaviors
- Provide strategies for foodservice operators to craft meaningful food safety messages to their customers

### FOOD SAFETY IS ALL ABOUT RISK







Nauta, Maarten et al. (2018). Meeting the challenges in the development of risk-benefit assessment of foods. Trends in Food Science & Technology. 76. 10.1016/j.tifs.2018.04.004.

#### RISK COMMUNICATION







Clarity and consistency of messaging



Promoting a positive Food Safety Culture within an organization



Communication with customers

#### FOOD SAFETY CULTURE





Food safety attitudes, values and beliefs shared by a group



Dynamic and influenced by multiple factors



Mature vs. immature food safety cultures



Norms



Reinforcement



## Message Development

#### MESSAGE DEVELOPMENT

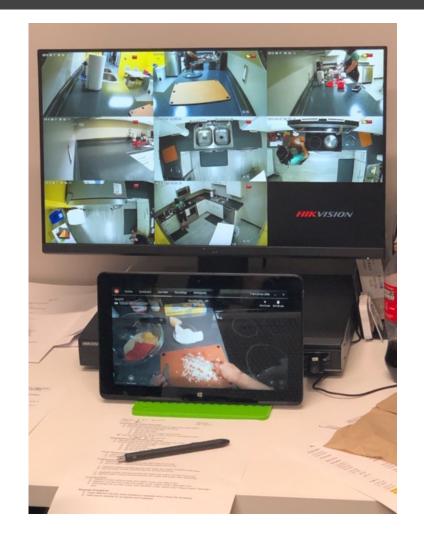




### MESSAGE DEVELOPMENT







# USDA FSIS STUDY: RTI INTERNATIONALYEAR ONE: "COOK" MESSAGE

FoodHandler®

- Prepared turkey burgers and chef's salad
- Intervention: Treatment group watched video about thermometer use
- Video triggered locations to sample and follow-up questions
- Assessed pathogen transfer
- Post-observation interviews



#### **SURFACE SAMPLING**

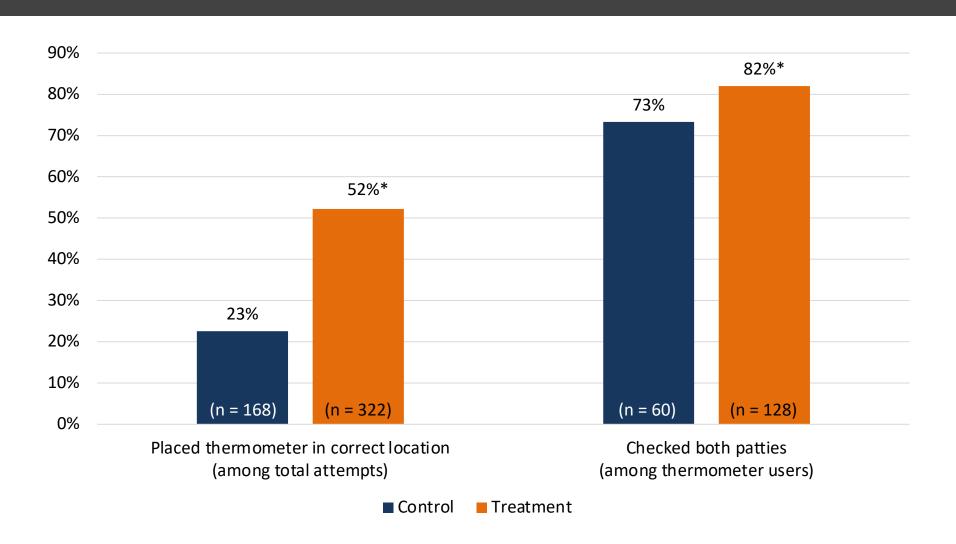


- Raw turkey burgers inoculated with bacteriophage MS2
- Following cooking task, swabbed surfaces around the kitchen
- Determined extent of crosscontamination across sampling sites



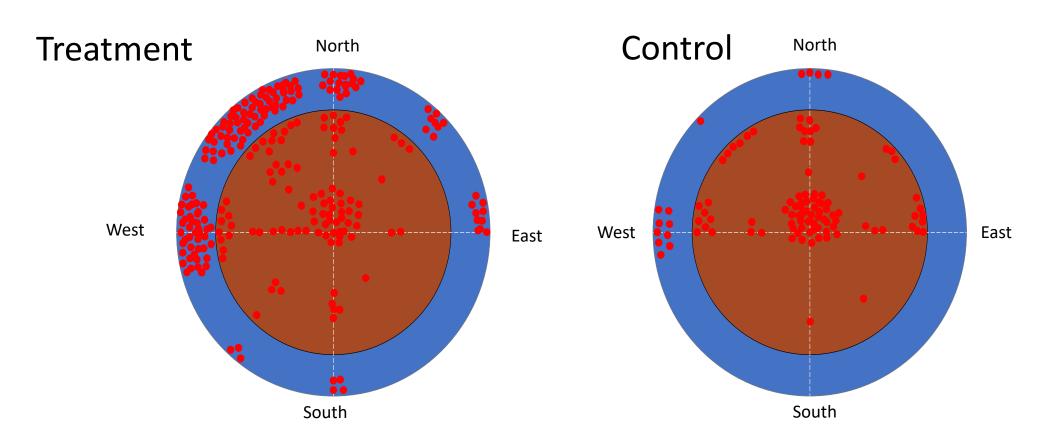
#### THERMOMETER USE





#### THERMOMETER USE



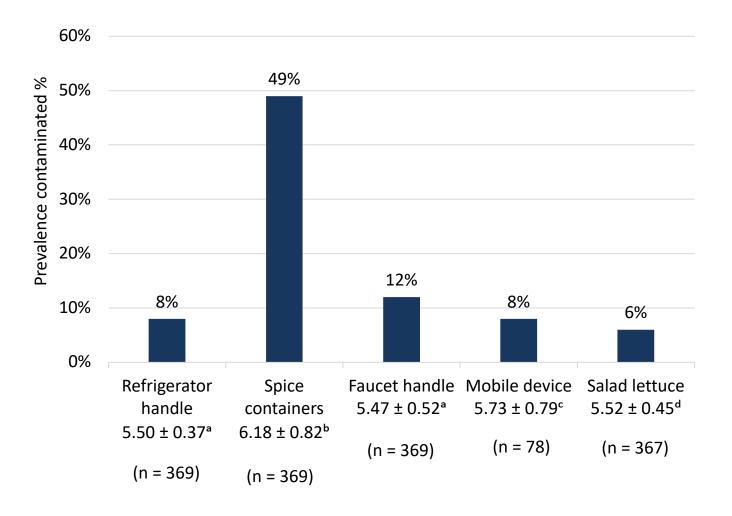


North is part of pan farthest from participant. Red dots indicate placement of thermometer insertion. Brown area represents top of turkey patty and blue halo represents side profile of turkey patty.

#### MS2 CONTAMINATION PREVALENCE



- <sup>a</sup> Level of contamination ± SD, log genome copies/handle.
- <sup>b</sup> Level of contamination ± SD, log genome copies/bottle.
- <sup>c</sup> Level of contamination ± SD, log genome copies/device.
- d Level of contamination (SD), log genome copies/18-25g



#### YEAR TWO: "CLEAN" MESSAGE



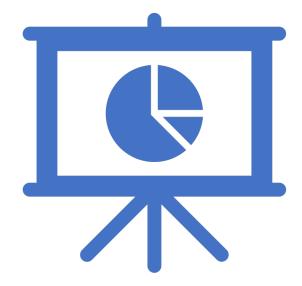
- Recruited individuals who self-reported as washing poultry
- Prepared chicken thighs and salad
- Intervention: Treatment group received messages in emails prior to study
- Assessed pathogen transfer before and after cleaning/sanitizing
- Post-observation interviews



#### YEAR TWO RESULTS



- Food safety messages effectively encouraged participants not to wash their poultry
  - 93% of treatment group did not wash
  - 39% of control did not wash
- Intervention did not affect cleaning/sanitizing attempts or success
- Use of the same cutting board was lower for treatment







Of the participants who washed their raw poultry, 60 % had surrogate bacteria in the sink after washing or rinsing the poultry. Even more concerning is that 14% still had the surrogate in their sinks after they attempted to 'clean' the sink.

26% of participants that washed raw poultry transferred bacteria from that raw poultry to their ready to eat salad lettuce



#### YEAR THREE: "COOK" MESSAGE



- Prepared not-ready-to-eat frozen, bread chicken breasts and salad
- Viewed news loop in waiting room
  - Treatment group's included messaging about using thermometer on frozen NRTE foods
- Video triggered locations for follow-up questions
- No microbiological component
- Post-observation interviews



#### RAW

RAW-DO NOT MICROWAVE: to help prevent foodborne illness caused by eating raw poultry

#### CONVENTIONAL OVEN COOKING INSTRUCTIONS:

Due to variations in ovens, cooking times may vary.





3 Bake in PREHEATED OVEN for:

1-2 BREASTS 3-4 BREASTS

For Food Safety, cook to a MINIMUM INTERNAL TEMPERATURE of 165°F measured by a meat thermometer.

INSTRUCTIONS: Insert meat thermometer into meat layer on each breast cooked (see diagram)

4 After baking, LET COOL for AT LEAST 3 MINUTES before serving. CAUTION: Filling will be hot and may splatter if not cooled.



375°F Oven Bake Only

DO NOT MICROWAVE



#### YEAR THREE THERMOMETER USE



- Control group used thermometer 77% of the time
- Treatment group used a thermometer 88% of the time
- Nearly all participants read package (lack of familiarity)
- Intervention did not affect thermometer use (passive)
- High rate in Year 3 may be due to reading manufacturer's cooking instructions

#### MESSAGE DEVELOPMENT





#### WHO IS YOUR AUDIENCE?









Define Target Audience Appropriate Language Is Key

Maximize Reach



#### MESSAGE DEVELOPMENT



- Timing when is delivery occurring
- Relevance food preparation really varies
- Need for nuance
- Presenting new information
- Continue to fill the gaps: handling of other products, consumer vs. retail



#### **STRATEGIES**







What resonates?

Passive vs. active messaging

#### **QUESTIONS?**







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#### CERTIFICATES







Certificates will be emailed out within <u>5-7 business days</u>, after submitting a certificate request.



Request a certificate at foodhandler.com/safebite-certificate-request/

#### WEBINAR RESOURCE



#### For more information about our webinars and registration:

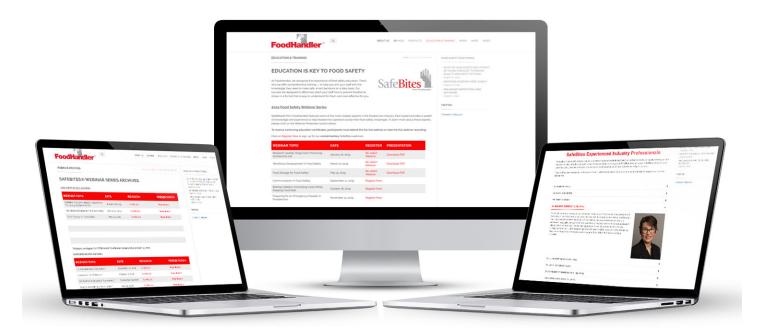








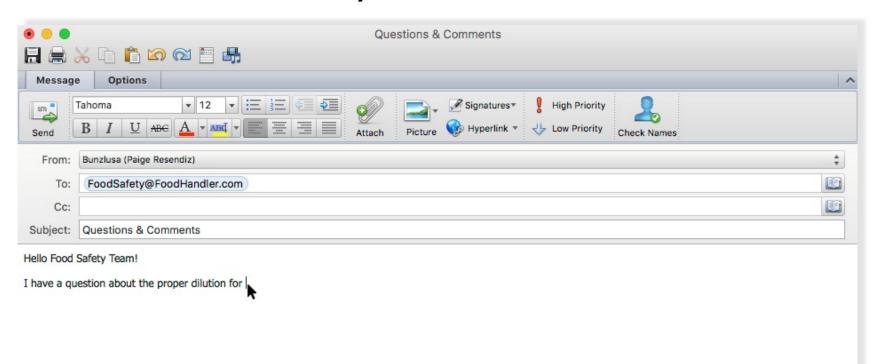




#### FOODHANDLER FOOD SAFETY RESOURCES



### Please send us your questions or comments at: FoodSafety@foodhandler.com



#### THANK YOU FOR JOINING US!



