

## Breaking Through Food Safety Barriers & Myths

## Welcome from PFSE



Shawnté Loeri Communications Associate Partnership for Food Safety Education <u>sloeri@fightbac.org</u>



# Today's Line Up

- Welcome / Housekeeping with Shawnte Loeri, Partnership for Food Safety Education
- Poultry Handling Research with Dr. Jennifer Quinlan, Drexel University
- "Don't Wash Your Chicken" with Adrian Aguirre, New Mexico State University
- NEW! Shareable Resources for BAC Fighter Outreach with Melissa Wyatt, MS, MA, and Shawnte Loeri, Partnership for Food Safety Education



# Housekeeping



Join the chat! Or send a question during the webinar.

After the webinar, you'll receive a brief survey. Please complete it.



#### Help us improve!



# **Continuing Education Units**

#### **One-hour CEU available from ANFP, CDR, NCHEC & NEHA**

- Download certificates from chat box
- Follow-up email
- Download at <u>fightbac.org</u> under "Free Resources" tab and "Recorded Webinars"
- Educators seeking NCHEC must complete online questionnaire by October 11



## About the Partnership

We're an active network of...

- 13,000 health and food safety educators
- 40+ Partner organizations
- Federal liaisons (CDC, FDA, USDA)

All working together to advance trusted, consistent, science-based behavioral health messaging.





## Did You Know?

#### **Every year in the United States...**

- 1 in 6 people (or 48 million people) get sick from foodborne illness, commonly called food poisoning
- 128,000 are hospitalized
- 3,000 die from eating contaminated food

Following simple food safety steps can help prevent foodborne illness and the spread of germs.





# Poll Question #1

Which is the most popular reason why consumers still wash chicken?

- 1. Belief that they won't get sick
- 2. No splashing when wash chicken
- 3. Sink and counter surfaces will be cleaned after
- 4. Chicken has dirt or goo that must be washed off
- 5. Tastes better after cleaning



#### Don't Wash Your Chicken: The Importance of the Use of Behavioral Theories and Formative Research to Inform Food Safety Education Messages

Jennifer J. Quinlan, Ph.D., Professor and Interim Chair, Dept. of Nutrition Sciences







## **Traditional Health Education Messages**

- Scientists determine what behavior is "best"
  - > Epidemiology
  - > Clinical research
  - Lab research





### **Traditional Health Education Messages**

- Tell people what to do for their health
  - > Don't smoke
  - > Eat "five a day"
  - Cook raw beef to 160 °F







### Health Behavior Models and Theories

- Attempt to explain why individuals and communities behave the way they do
- Can help planners design effective health promotion programs



#### Washing Poultry After 2013 Education Campaign

<b>20</b> 1	11		2013		2019	
90% wash raw poultry		68.7% wash raw poultry		67-72% wash raw poultry		
•	•			•	•	
Don't Wash Chicken!		<i>Your</i> 67-68% wa poultry		sh raw		
	Ċ	2013		2016		
					or for DREXEL UNIVER	RSITY
					College of Nursing	and

Health Professions

## Don't Wash My Poultry?! – Identifying Barriers to Consumers Adopting Safe Food Handling Practices

Agriculture and Food Research Initiative Grant #2019-69008-29908 from the USDA National Institute of Food and Agriculture



What Should the Next Iteration of the "Don't Wash Your Chicken" Message Look Like? Formative Research

- Surveys
  - > Assess what people know about the message
- In-Depth Interviews
  - Understand why some consumers are "resistant" to the message



## **Survey Research – Objectives**

- Determine the current frequency with which consumers wash raw poultry
- Determine if consumers are aware of the recommendation to not wash raw poultry
- Identify common barriers that prevent consumers from not washing raw poultry



# **Survey**

- Survey administered September 18–19, 2020
- SurveyMonkey<sup>®</sup> Contribute member pool
- Ages 18+ in the United States
- Purchased panel of 2,000 respondents representative of the U.S. Population

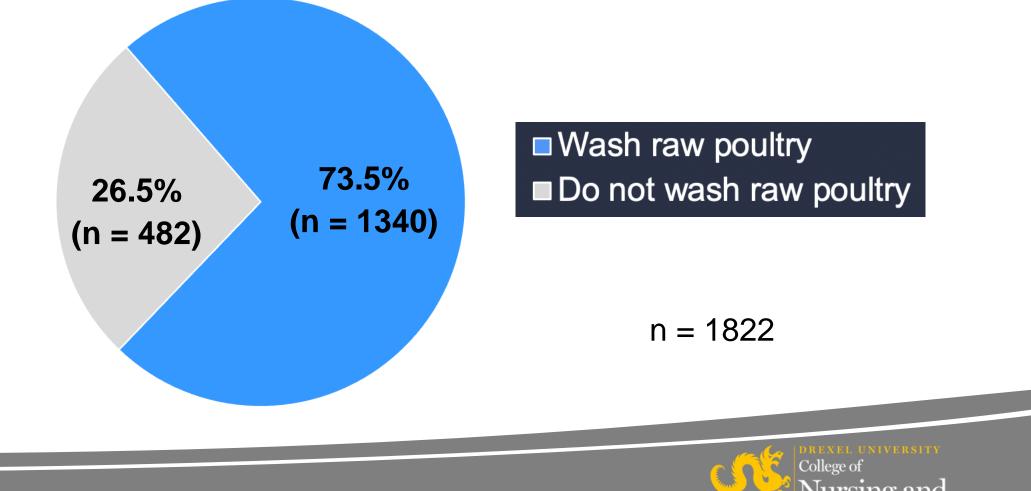


## **Survey Results**

- 2,193 responses
- 317 lost to screener question (Don't prepare raw poultry)
- 54 lost to lack of engagement/completion
- 1,822 eligible responses for data analysis

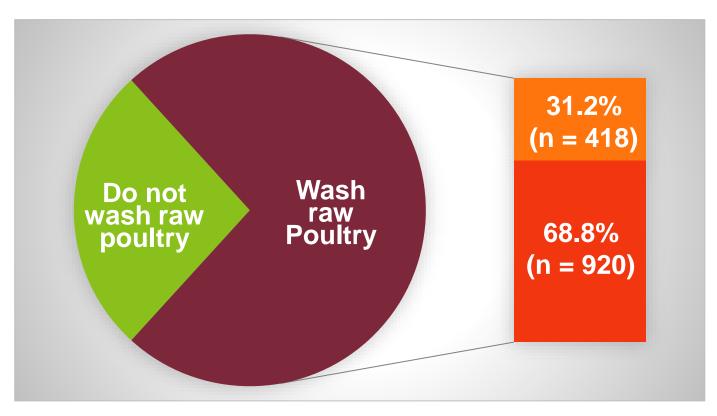


#### **Frequency of Washing Raw Poultry**



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#### Aware of the message to not wash raw poultry



#### Aware of the message

#### Unaware of the message



## **Respondents presented with the USDA Message**

#### Washing Meat and Poultry

One common mistake that consumers make in the kitchen is washing or rinsing their meat or poultry before cooking it. Washing meat or poultry can mean different things to different people: some consumers rinse it under running water or with a strainer, others soak it in containers full of water and some even use saltwater, vinegar or lemon juice to try to "clean" their meat. However, washing raw poultry, beef, pork, lamb or veal before cooking it is not recommended. Bacteria in raw meat and poultry juices can be spread to other foods, utensils and surfaces. We call this cross-contamination.

While washing meat and poultry to remove dirt, slime, fat or blood may have been appropriate decades ago when many slaughtered and prepared their own food, the modern food safety system doesn't require it. Meat and poultry are cleaned during processing, so further washing is not necessary. Never use soaps or detergents on your meat or poultry products. They can contaminate your food with chemicals and make it unsafe to eat.

Some consumers may wash or rinse their raw meat or poultry because it's a habit or because a family member they trust has always washed their meat. Just as many people did not wear seatbelts decades ago, we now know from research that wearing seatbelts makes one safer and have changed our habits as a result. Recent USDA research has found that washing or rinsing meat or poultry increases the risk for cross-contamination in the kitchen, which can cause foodborne illness. It's time to leave this habit in the past and make washing meat and poultry as outdated as not wearing a seatbelt.

If you wash meat or poultry, some bacteria can be splashed on the surfaces of your kitchen. Failure to clean these contaminated areas can lead to foodborne illness. Cooking to the right temperature (whether frying, baking, broiling, boiling or grilling) kills germs on meat and poultry, so washing these products is risky and not necessary.

82% reported they were somewhat to very confident that they could change their behavior after reading the message

USDA Food Safety and Inspection Service https://www.fsis.usda.gov/wps/portal/fsis/to pics/food-safety-education/getanswers/food-safety-fact-sheets/safe-foodhandling/washing-food-does-it-promotefood-safety/washing-food



#### How often do you wash or rinse raw poultry?

n = 417 – This was asked of consumers who had heard the message but still washed poultry

	Respondents % (n)
Never	1.9 (8)
Rarely	12.5 (52)
Sometimes	24.5 (102)
Often	22.8 (95)
Always	38.4 (160)



## Solutions to wash raw poultry

n = 414

	Respondents % (n)
Salt	32.9 (136)
Lemon Juice	28.5 (118)
Vinegar	23.2 (96)
Lime Juice	20.8 (86)
Alcohol	14.7 (61)
None of these	41.3 (171)



# Barriers to not washing raw poultry

n = 417

	Respondents % (n)
I clean my sink and counter surfaces well	58.5 (244)
I have never gotten sick	48.4 (202)
I am careful not to splash	47.2 (197)
I need to clean something off the poultry	28.8 (120)
It improves the taste	15.6 (65)



# **Conclusions**

- Washing raw poultry continues to be prevalent in the U.S.
- A large percentage of consumers are still not aware of the message not to wash raw poultry
- Many of these consumers may easily change their behavior if made aware of the correct behavior
- Some consumers are resistant to the correct behavior

C. Vatral, A.D. Gilman and **J.J. Quinlan**. 2022 Evaluation of Consumers Behavior, Knowledge, and Attitudes Around the Message Not to Wash Raw Poultry. J of Food Prot. 85(6), 930-937 <u>https://doi.org/10.4315/JFP-21-324</u>



#### Formative Research – In-Depth Interviews

• Methods of Behavioral Science-Based Research

- > Qualitative research
- > Exploratory in nature
- > Seeks to identify "phenomena" and "themes"



#### **Transtheoretical Model of Behavior Change**



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#### Formative Research – In-Depth Interviews

- Recruit individuals who were aware of the message to not wash raw poultry, but report not adopting the correct behavior
- Conduct in-depth interviews to better understand consumers' resistance to adopting the correct behavior
- Identify barriers to consumers adopting the correct behavior that can inform next-generation educational materials

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## Development of In-Depth Interview Questioning Route

- Each question was categorized into one of four themes:
  - > Current Raw Poultry Handling Behaviors
  - > Awareness/Knowledge of Correct Behavior
  - > Barriers to Acceptance of the Public Health Message

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> Barriers/Facilitators of Behavior Change

### Participant Recruitment and Eligibility

- Participants were recruited by social media advertisement, ResearchMatch, and snowballing
- Recruitment occurred from October 2020 through
  March 2021
- Eligibility Criteria: (1) Washes or rinses raw chicken when preparing it at home; (2) Aware of the message to not wash chicken; (3) 18+ years of age

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#### We're Recruiting!

Are you interested in being involved in a research study about safe food handling practices?

Eligible particpants can receive a \$50 Amazon giftcard

EMAIL YOUR NAME AND PHONE NUMBER TO CHICKEN@DREXEL.EDU



## In-Depth Interviews – Methodology

- Participants were emailed consent information and confirmed participation prior to initiating the recorded, in-depth interview on Zoom
- Researcher followed a flexible 13-question route for each in-depth interview
- Interviews were completed with 23 people between December 2020 and March 2021
- Each interview lasted between 30 and 60 minutes

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Theme	Examples from In-Depth Interviews		
Washing and Cooking Influence	And I learned it from my parents, my mom and dad. And I usually just watch them and then follow along with them. Participant 11	I learned how to cook from YouTube. My mother is a phenomenal cook, but it's all fattening food. Participant 8	
ControlFor me to feel good about it. And		I do wash it and I do sort of clean off that extra stuff just toyou knowfeel better about eating it. Participant 16	
So, for this random person that I don't know to tell me that they rinsed my chicken. How can I trust you? Participant 10		What I've seen go on in restaurants is like, people don't always have sense, like there's normal practices that you know are encouraged by restaurants, but I know first-hand from working for like over 20 years that they're not always carried out. Participant 19	
Habits	But the thing is, I've been doing it my whole life for 30 some years. I've never had [foodborne illness]. Participant 8	I just don't think to do it 'cause, you know, I'm 66 years old. Participant 20	



### **Questions/Comments Consumers Had**

- Why should I change if this is the way my mother/grandmother did it?
- What's that "goo"? I need to get it off!
- How do I keep my family safe?
- Lack of trust I need control to make sure it's safe

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- Most participants were willing to learn more about the safe handling of raw chicken
- The long-standing habit of washing chicken and having a sense of control over the cooking preparations were the primary reasons for continuing to wash raw chicken





• Future message development should highlight the scientific evidence supporting the recommendation, elaborate the reasoning behind the message, and provide alternative behaviors

Gilman, A.D., S.C. Henley and **J.J. Quinlan**. 2021. Understanding Barriers to Consumers to Stop Washing Raw Poultry through In-Depth Interviews. British Food Journal. <u>https://doi.org/10.1108/BFJ-07-2021-0837</u>



#### Message Development

- Used the Iterative Process
- Input from Stakeholders
  - > BAC Fighters/PFSE
  - > Academics
  - > Health educators
  - > USDA/CDC

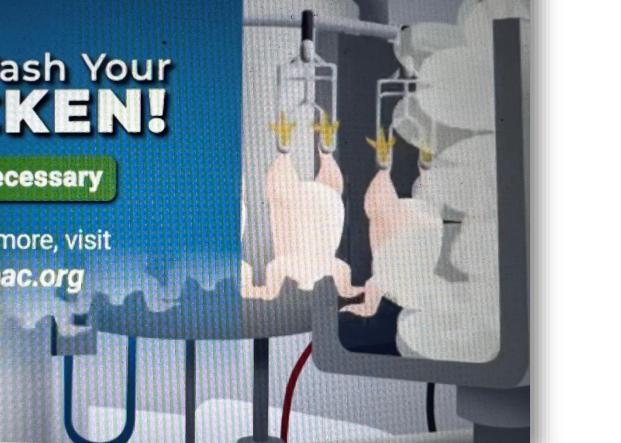




# Don't Wash Your CHICKEN

It's unnecessary

To learn more, visit fightbac.org





#### Acknowledgments

- Partnership for Food Safety Education
  - > Britanny Saunier
  - Shelley Feist
- New Mexico State University
  - Barbara Chamberlain
  - Pamela Martinez
  - Jeanne Gleason
- This project is supported by the Agriculture and Food Research Initiative Grant # 2019-69008-29908 from the USDA National Institute of Food and Agriculture.









#### Jennifer J. Quinlan, Ph.D. Professor and Interim Chair Department of Nutrition Sciences Drexel University jjq26@drexel.edu





# Don't Wash Your CHICKENS Video Campaign

Learning Games

Adrian Aguirre learninggameslab.org

#### Goal

Change consumer behavior by communicating key issues related to washing raw chicken.





### Design Approach

#### **Identify:**

- Audience who it is and who it isn't
- Message strategies for creating the desired changes





#### Audience

#### Younger generations:

- Open to change
- Likely to share with older generations





### **Desired Changes**

- Understand that rinsing doesn't remove pathogens – it spreads them
- Understand that the amount of contamination from splatter and aerosolization is invisible and hard to sanitize





### **Desired Changes**

- Understand that slime/goo is not harmful and that instead of rinsing you can dry the chicken with a paper towel
- Know that cooking to 165°F
  is what kills pathogens





### **Desired Changes**

- Understand that high-risk populations are more susceptible to serious foodborne illnesses
- Understand that processed chicken is now pre-rinsed, and that habits for washing the chicken were formed at a different time





#### Communication Goals

- Visualize contamination both from splatter and aerosolization to help explain that even if you clean afterward, you may miss contaminated areas
- Reinforce the message that cooking to 165°F is what's most important





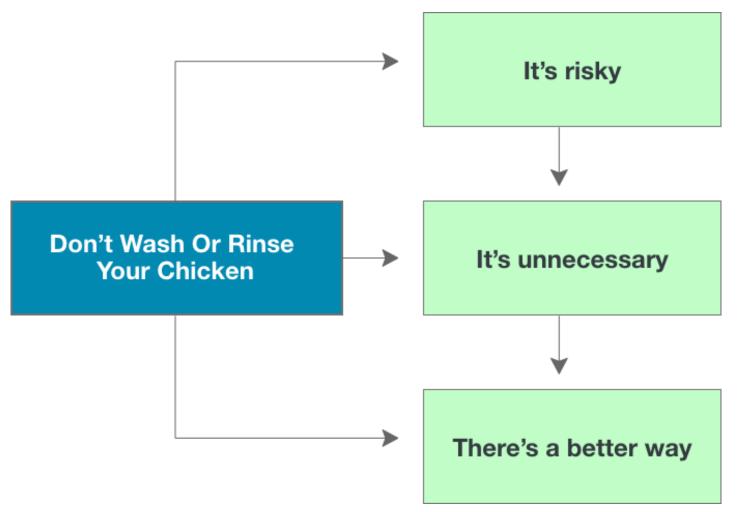
#### Communication Goals

- Remind viewers of the risk of contamination, particularly for vulnerable populations.
- Show how the alternative is manageable and doable
- Explain why washing was done in the past





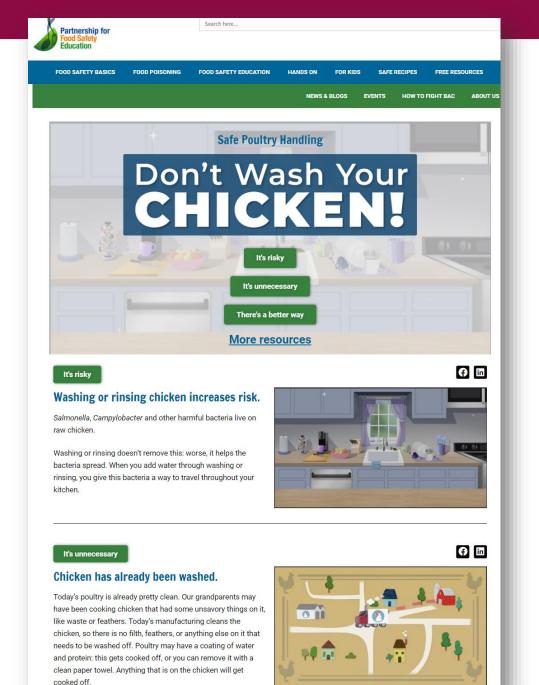
#### Key Messages





#### Communication Strategies

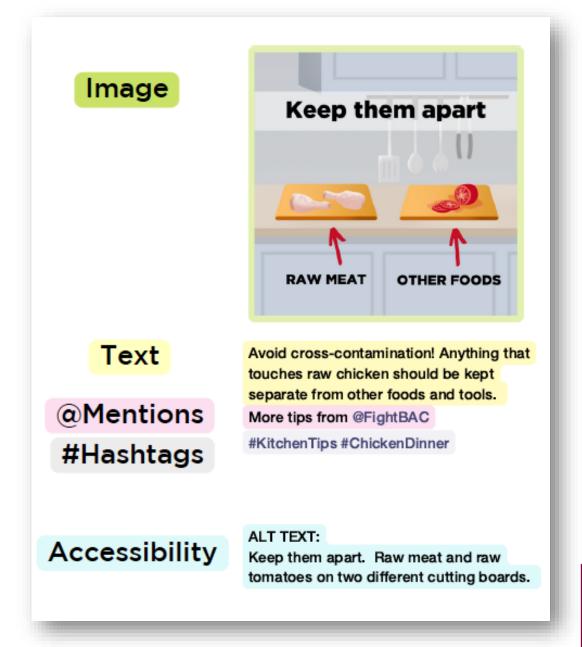
- Social media campaign to reach a younger audience
- Easily shareable content and toolkit
- Surprising, catchy message to grab audience's attention
- Landing webpage tied to the social media campaign www.fightbac.org/poultry



NM state

#### Social Media Toolkit

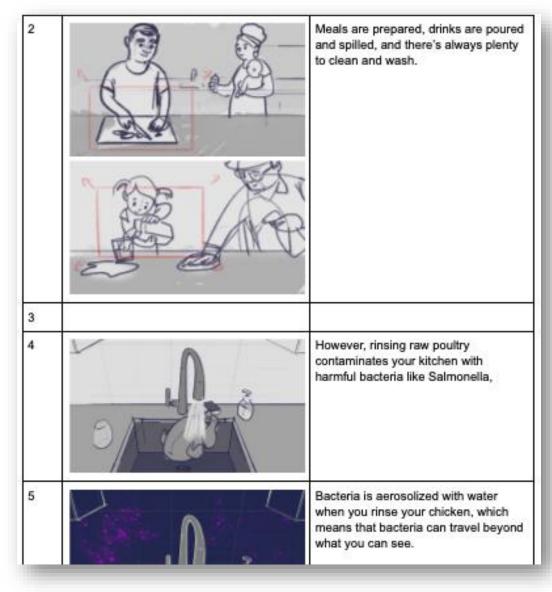
- Guide for creating social media posts
- Several sample messages with images
- List of PFSE social media channels and hashtags





#### Production

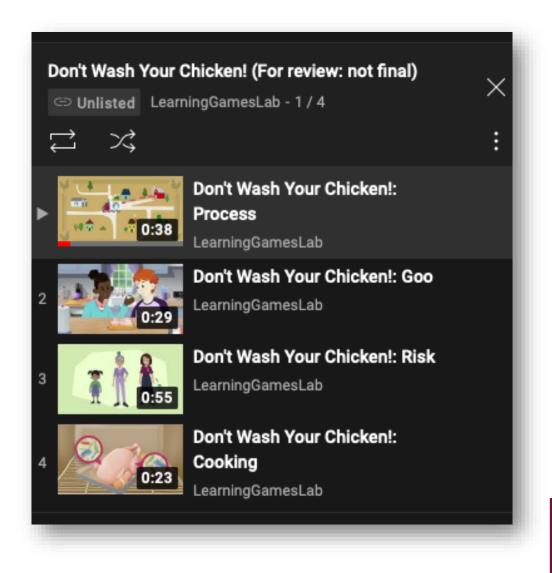
- 1. Script
- 2. Storyboard
- 3. Animatic
- 4. Draft Animation
- 5. Focus Group Testing w/BAC Fighter Ambassadors
- 6. Animation Final





#### **Testing Goals**

- The videos are clear and easy to understand.
- The videos accurately portray food safety practices/scenarios and flag any concerns.
- The videos provide a good understanding of the "why" behind the guidance.
- General impressions and unexpected consequences.





"Risk"



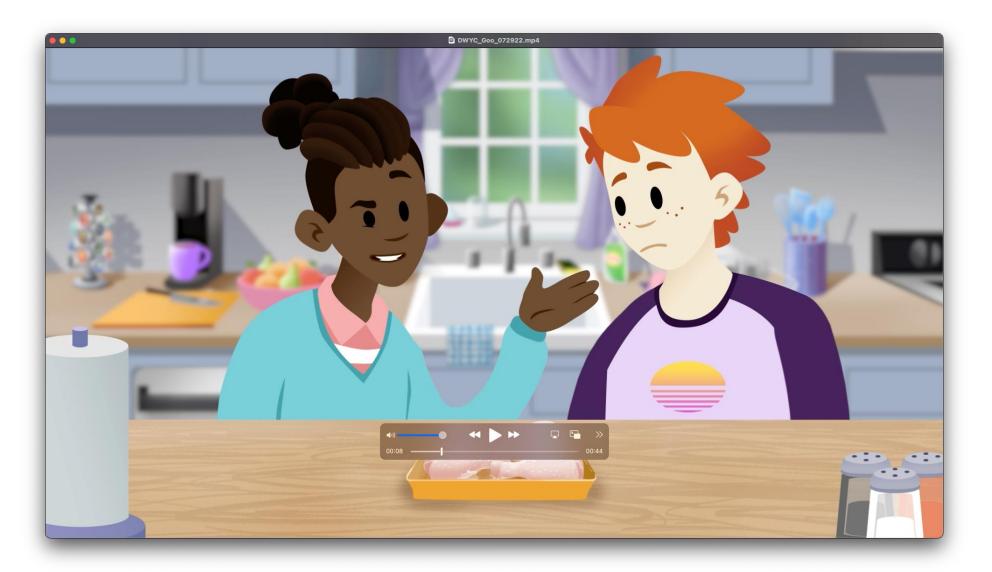


#### "Processing was a little different"



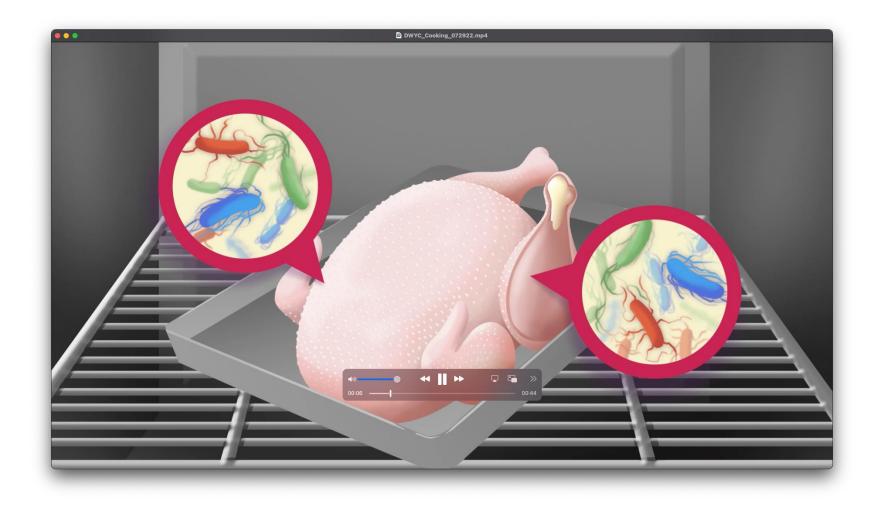


#### "What's that goo?"





#### "Cook to 165°F"





### Poll Question #2

Which resources are most helpful in your food safety education outreach?

- 1. Brochures
- 2. Flyers
- 3. Kids activities
- 4. Social media graphics
- 5. Videos



#### Guest Speaker



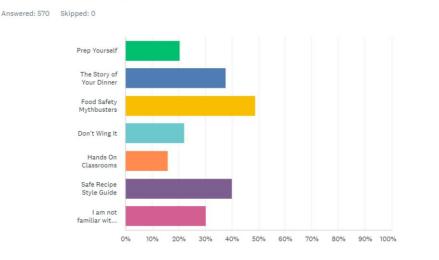
Melissa Wyatt, MS, MA BAC Fighter Ambassador

Food & Nutrition Professional



#### Popular Fight BAC! Resources

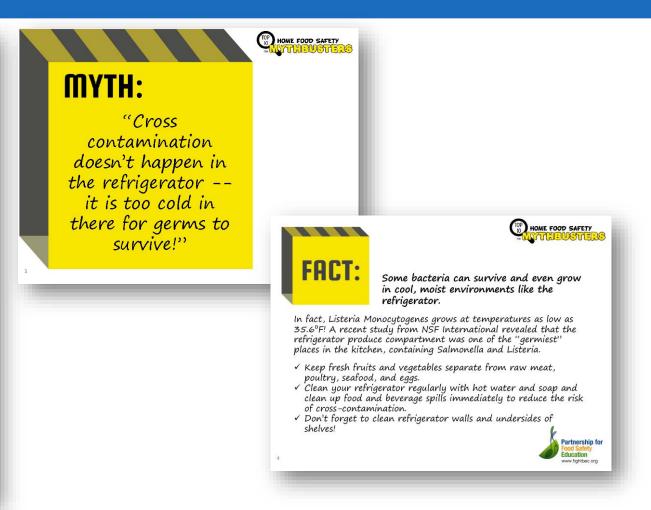
Which of the following Partnership/Fight BAC resources are you familiar with? (check all that apply)



NSW	/ER CHOICES	RESPONSES	*
Pr	rep Yourself	20.53%	117
Tł	he Story of Your Dinner	37.72%	215
Fo	ood Safety Mythbusters	48.77%	278
D	on't Wing It	22.28%	127
На	ands On Classrooms	15.96%	91
Sa	afe Recipe Style Guide	40.18%	229
la	am not familiar with any of these resources	30.18%	172
otal I	Respondents: 570		

Partnership for

Food Safe Education



#### Meat & Poultry



### FOOD MYTHBUSTERS



**MYTH:** Rinsing raw chicken with water will remove bacteria like *Salmonella*.

FACT: Rinsing raw chicken will not remove bacteria. In fact, it can spread harmful bacteria around your sink, onto your countertops, and onto ready-toeat foods. To kill harmful bacteria, poultry should be cooked until the internal temperature reaches 165°F on a digital food thermometer.

fightbac.org/mythbusters

Partnership for

Education



### Fridge & Freezer





#### Clean & Sanitize





#### Babies & Toddlers



### FOOD MYTHBUSTERS



MYTH: vegetab

**MYTH:** It's safe to use frozen vegetables to soothe the gums of my teething baby.

Partnership for

FACT: Frozen vegetables are a nutritious and convenient option for your teething baby. However, they should first be prepared according to package cooking instructions to ensure food safety. Always follow package cooking or preparation instructions for safety before serving frozen foods.

fightbac.org/mythbuster



#### Microwave Safety

#### FOOD MYTHBUSTERS



# FOOD MYTHBUSTERS



**MYTH:** The "standing time" recommended for microwaveable foods is optional, to prevent me from burning myself.



FACT: The temperature of food can increase several degrees during the "standing time."

Partnership for

Always follow package directions that advise letting the food rest for a few minutes after turning off the microwave or removing food from the microwave. Know your microwave's wattage and use a digital food thermometer to ensure food has reached a safe internal temperature.

fightbac.org/mythbusters

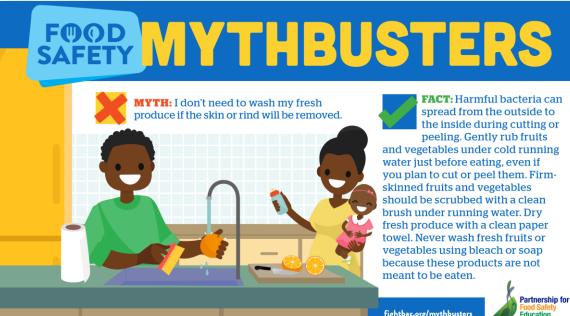


### Food Delivery



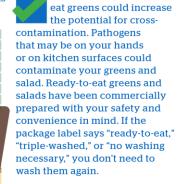


#### Fruits & Vegetables



### FOOD ANT HEUSTERS

**MYTH:** There's no harm in rinsing bagged greens and packaged salads for extra safety.



FACT: Rinsing ready-to-

fightbac.org/mythbusters

Partnership for ightbac.org/mythbus



### Spanish Language







#### Available Now

- 25 social media graphics
- 7 food safety categories
- English and Spanish language
- More resources coming soon!

www.fightbac.org/mythbusters





### Thank you for your input!

- Judy Dodd
- Adam E. Friedlander
- Mari Schroeder
- Adrienne Seiling
- Atalie Tompkins
- Julie Wood
- Melissa Wyatt







#### Stay Connected with Us





linkedin.com/company/PFSE



youtube.com/user/BACFighter



#### 2023 Consumer Food Safety Educations Conference

- Only conference in the U.S. dedicated to consumer food safety education
- March 1-3, 2023 in Arlington, VA
- Special rate for government, educators, non-profits and students
- Discounted rate until September 1

Register online at <u>cfsec.org</u>!





# Coming Up!

- National Food Safety Education Month in September
- Global Handwashing Day is October 15
- The Story of Your Dinner during holiday season





### Help Us Be Top Rated!

- Go to GreatNonprofits.org
- Search: "Partnership for Food Safety Education"
- Leave a brief review
- Takes less than 3 minutes

https://greatnonprofits.org/org/partnership -for-food-safety-education







# Sign Up Today!

#### **Cooking Times**

- Monthly e-newsletter
- Delicious, safe recipes
- Food safety tips & cooking trivia
- getcookingtimes.fightbac.org/home

#### **Lasting Lessons**

- Monthly e-newsletter for educators
- Educational resources
- Food safety tips
- <u>fightbac.org/sign-up/</u>





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### **Continuing Education Units**

#### **\*\*FINAL REMINDER\*\*** Get your CEU certificate!

- 1. Download certificates from chat box
- 2. Follow-up email
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### Thank You!

**Dr. Jennifer Quinlan** Drexel University

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