

Trends in Food Safety – Results from the 2016 Food Safety Survey

Amy Lando, MPP
Linda Verrill, PhD
Sherry Liu, PhD

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Outline

- Survey objectives and methods
- Survey Results
 - Risk Perception
 - Food Handling
 - Potentially risky food consumption
- Summary of key findings
- Conclusions and implications

Background

- The Food Safety Survey measures consumers attitudes, behaviors, and knowledge about food safety.
- Data are used to measure progress on 5 Healthy People 2020 measures:
 - 4 on food safety
 - 1 on food allergens
- 2016 is the 7th wave of the survey, allowing for trend analysis for many questions.

Methods

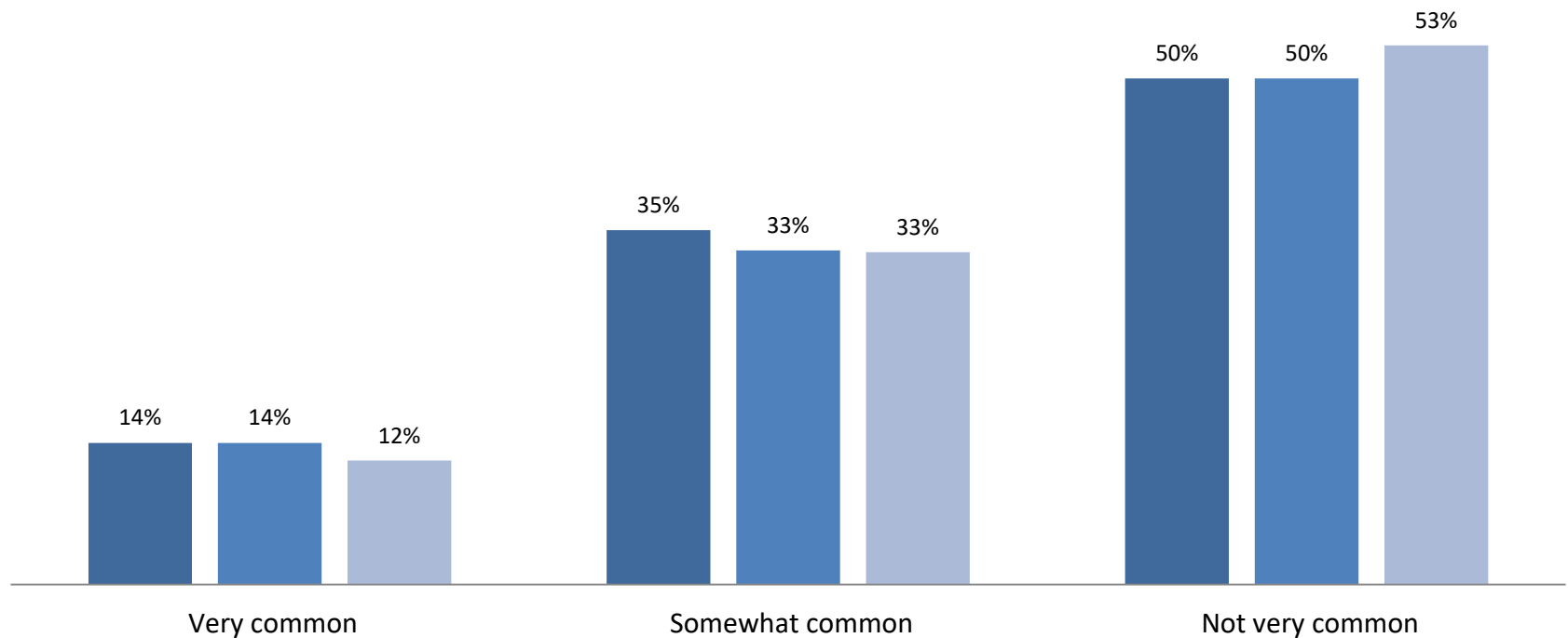
- 2016 Food Safety Survey, a dual-frame (landline and cell phone) survey of 4,169 Americans ages 18 and older.
- Fielding took place from October 6, 2015 to January 17, 2016.
- The survey averaged 17 minutes per respondent.
- The results are weighted to ensure that they are reflective of the American population.
- The response rate is 21%, according to the AAPOR RR3.

RISK PERCEPTION

In all survey years shown, about half of all respondents thought that it is “**Not very common**” for people to get food poisoning because of the way food is prepared in their home.

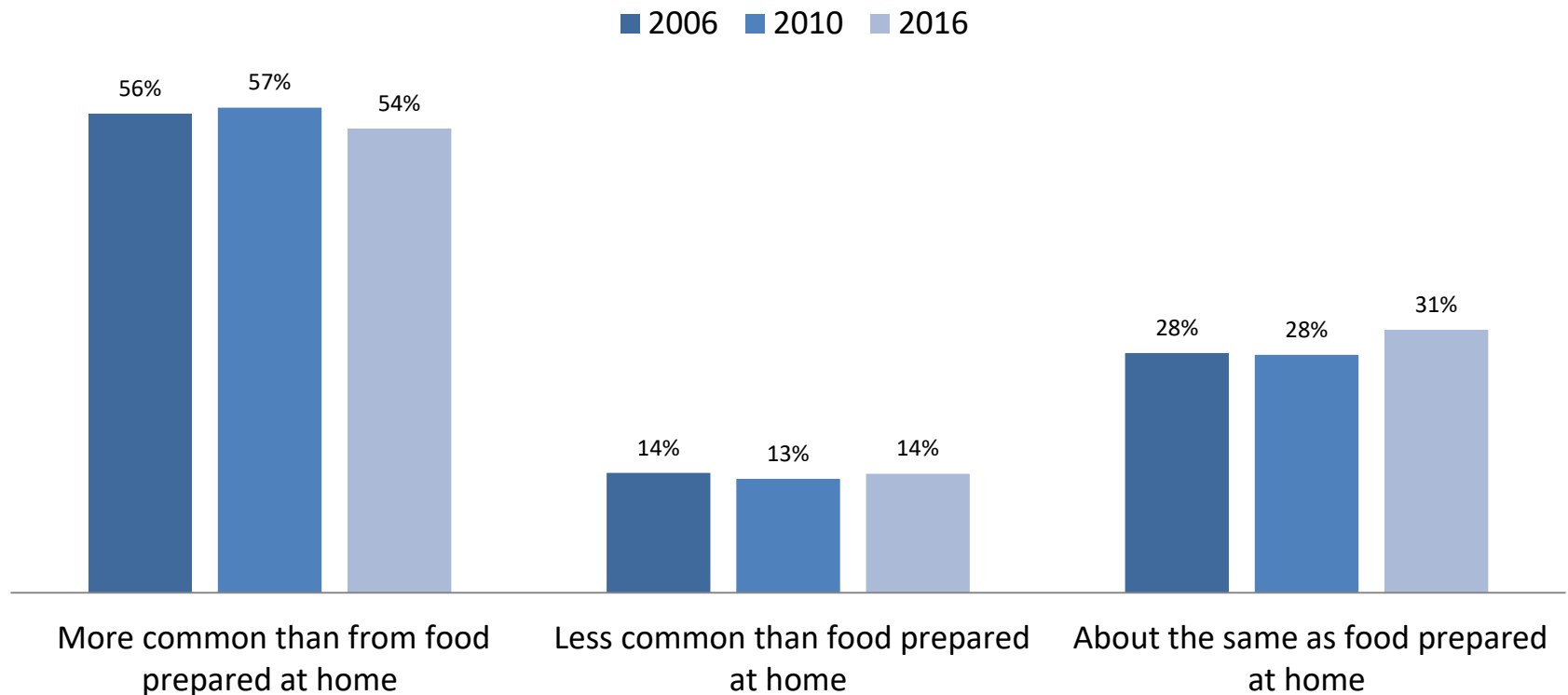
How common do you think it is for people in the United States to get food poisoning because of the way food is prepared in their home?

■ 2006 ■ 2010 ■ 2016



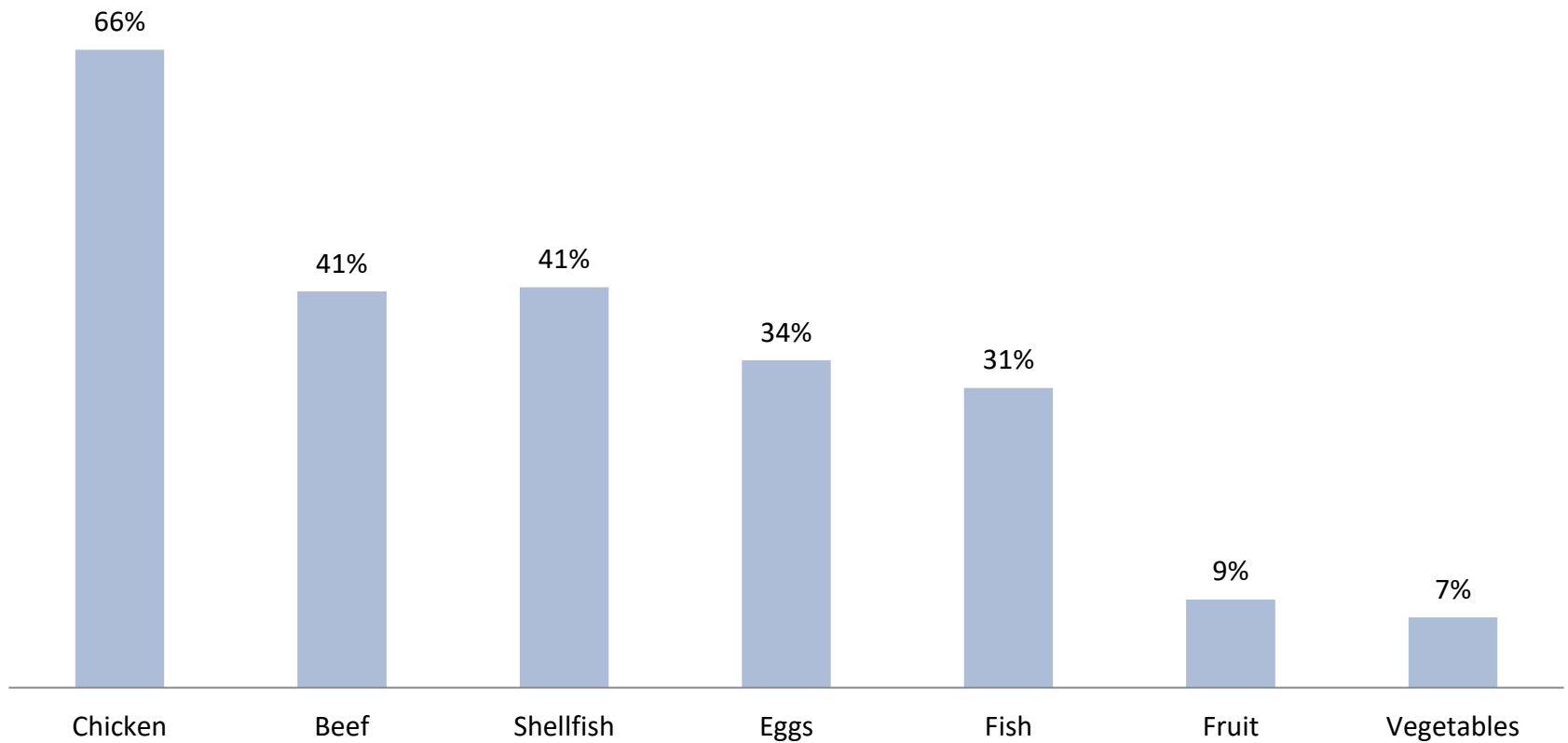
In all survey years shown, over half of all respondents thought that it is “**More common**” for people to get food poisoning from restaurants compared to food prepared at home.

How common do you think it is for people in the United States to get food poisoning from restaurant food compared to food prepared at home? Would you say that it is...



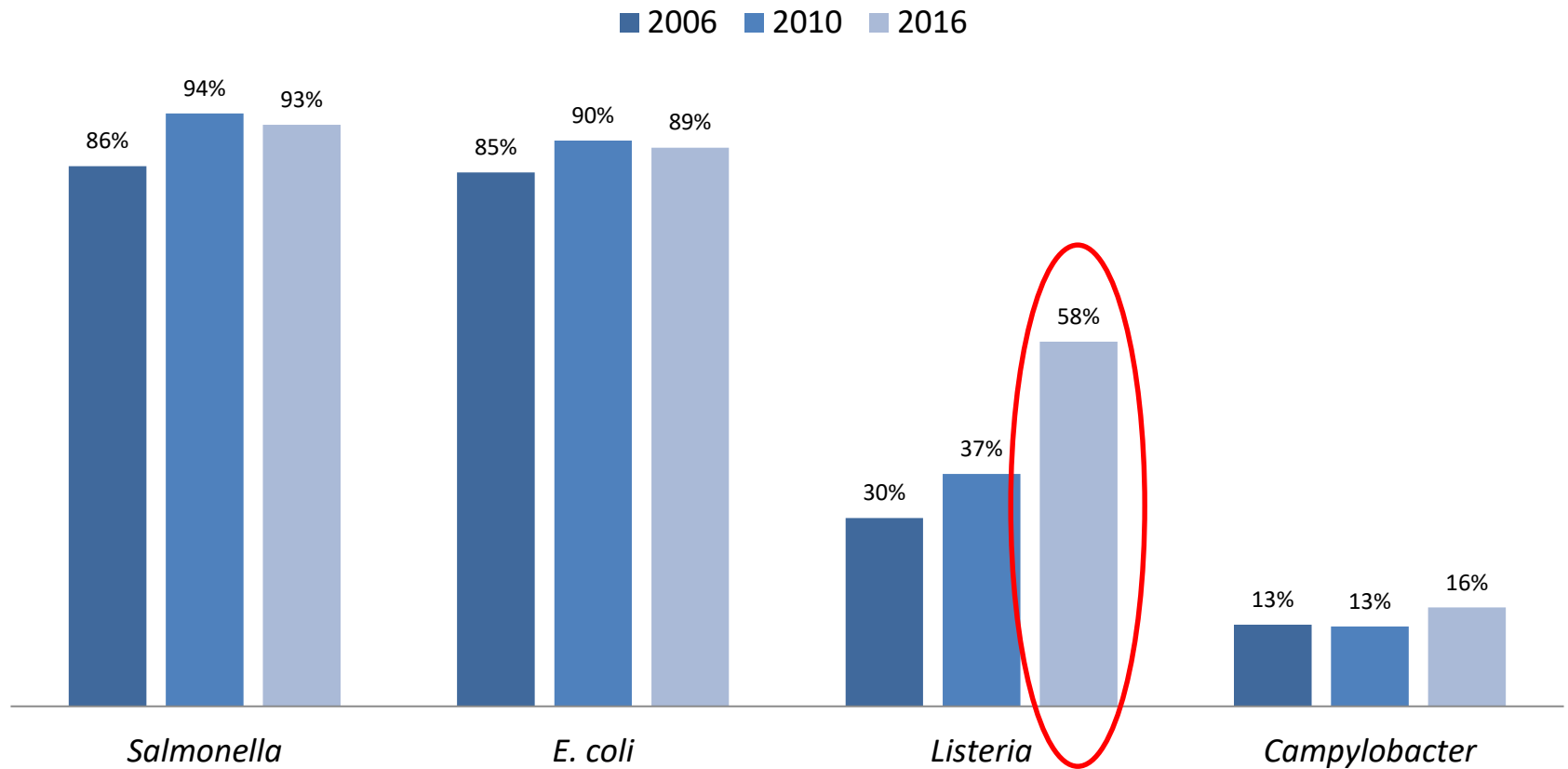
Animal protein foods are considered more likely to have germs compared to fruits or vegetables.

Percent of respondents in 2016 who thought that each food was “very likely” to have germs



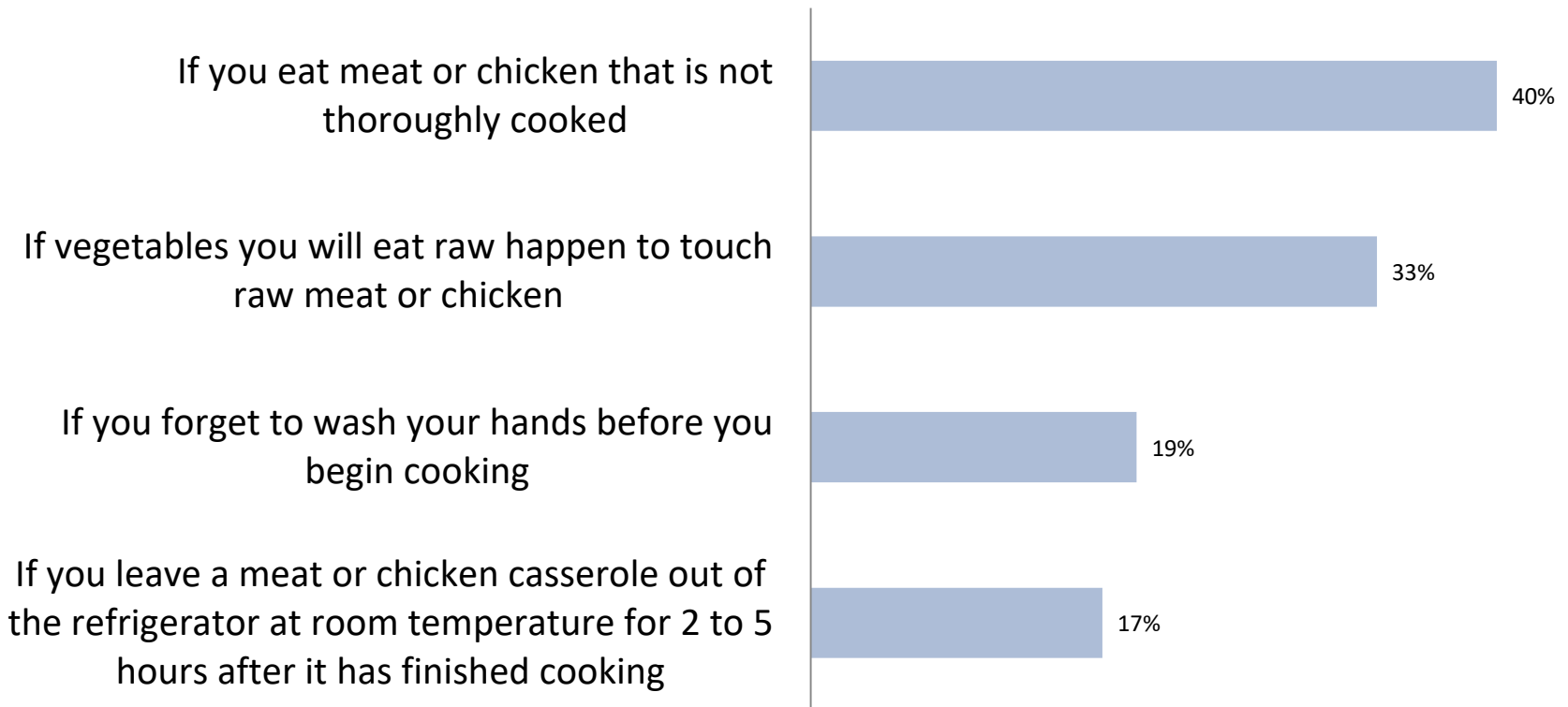
In all survey years, more respondents have heard of *Salmonella* and *E. coli* as problems in food than *Listeria* or *Campylobacter*.

Have you ever heard of [] as a problem in food?



Respondents are more concerned about getting sick from eating undercooked meat or chicken (or anything that it touches) than from not washing hands or leaving food out for too long.

Percent who think they are "very likely" to get sick from each behavior (2016 data)

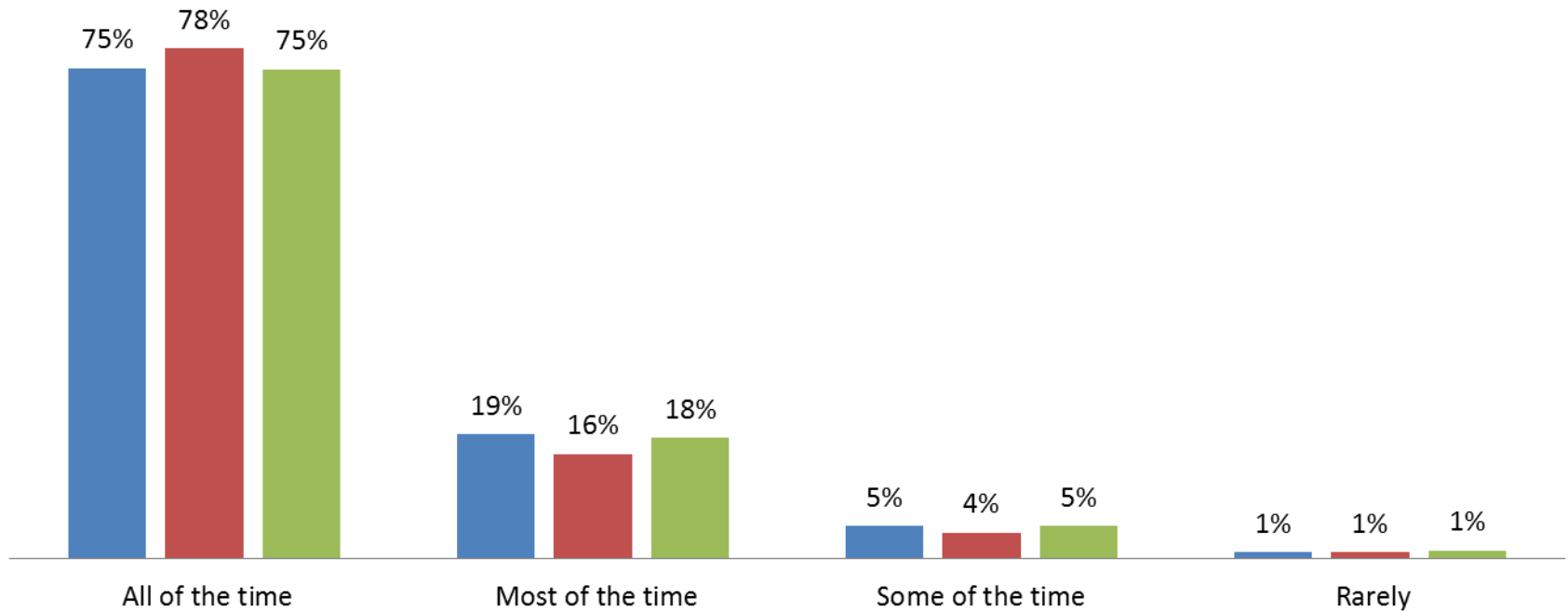


FOOD HANDLING BEHAVIOR

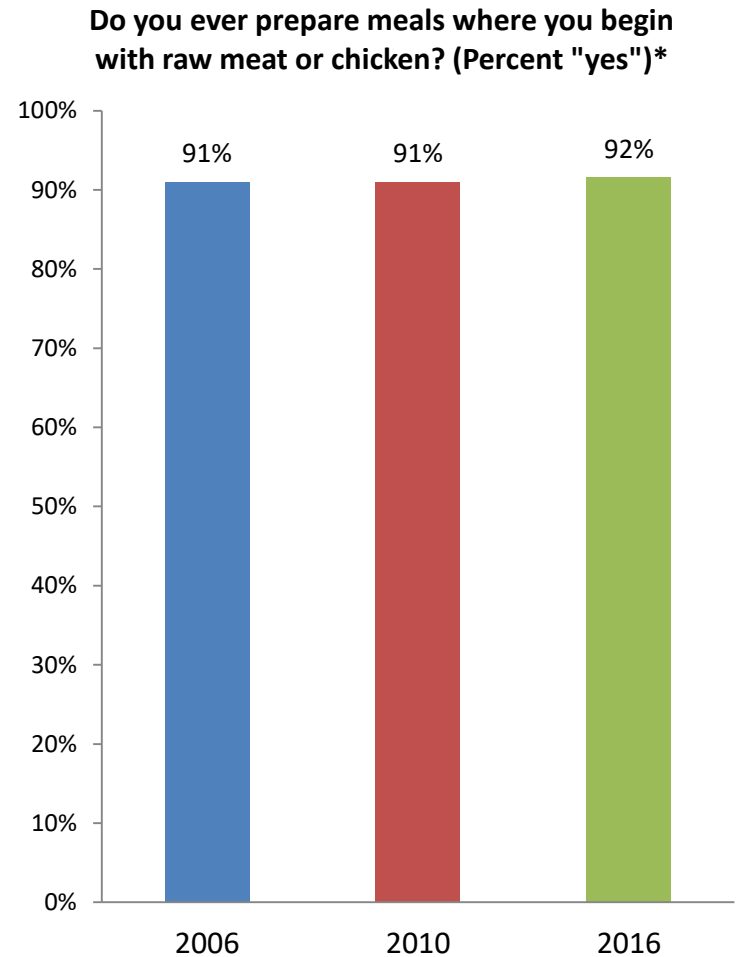
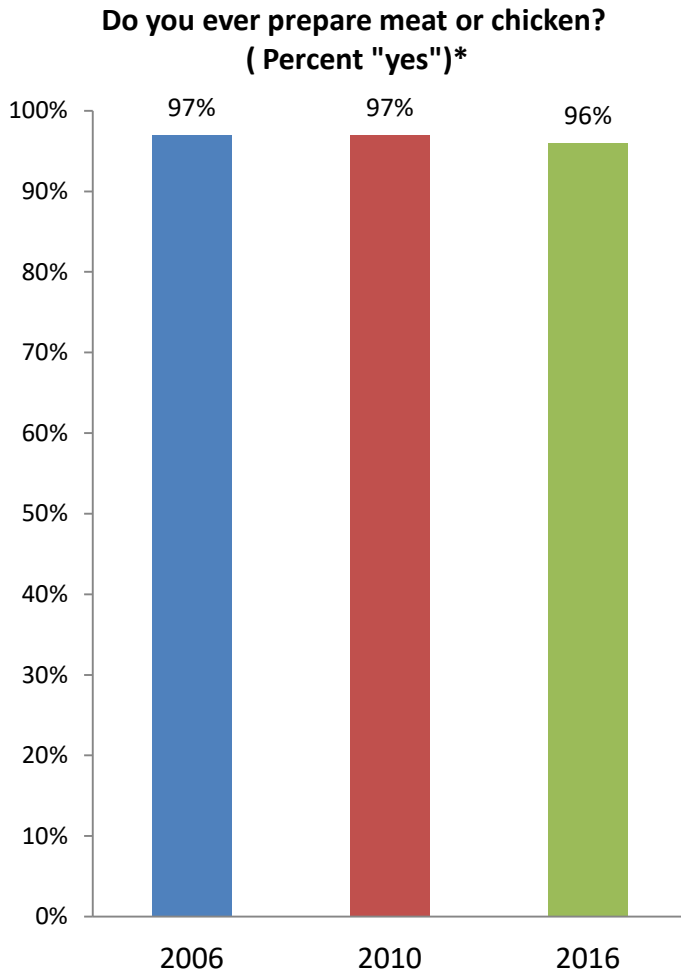
The rate of washing hands before preparing food has stayed the same over the 2006 to 2016 time frame.

Before you begin preparing food, how often do you wash your hands with soap?

■ 2006 ■ 2010 ■ 2016



Most prepare meals with raw meat or chicken.

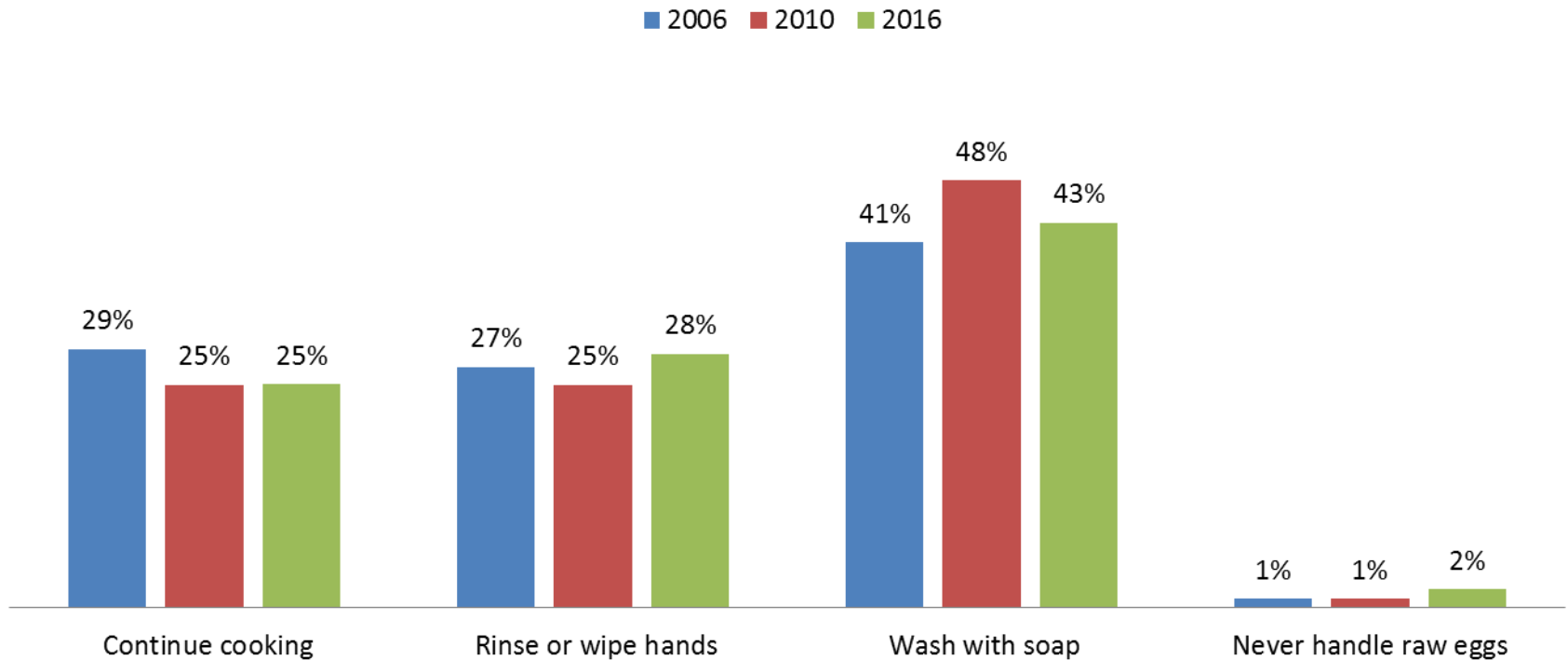


*Asked of those who prepare the meal.

*Asked of those who prepare raw meat or chicken.

After increasing from 2006 to 2010, the percent who wash with soap after cracking raw eggs declined in 2016.

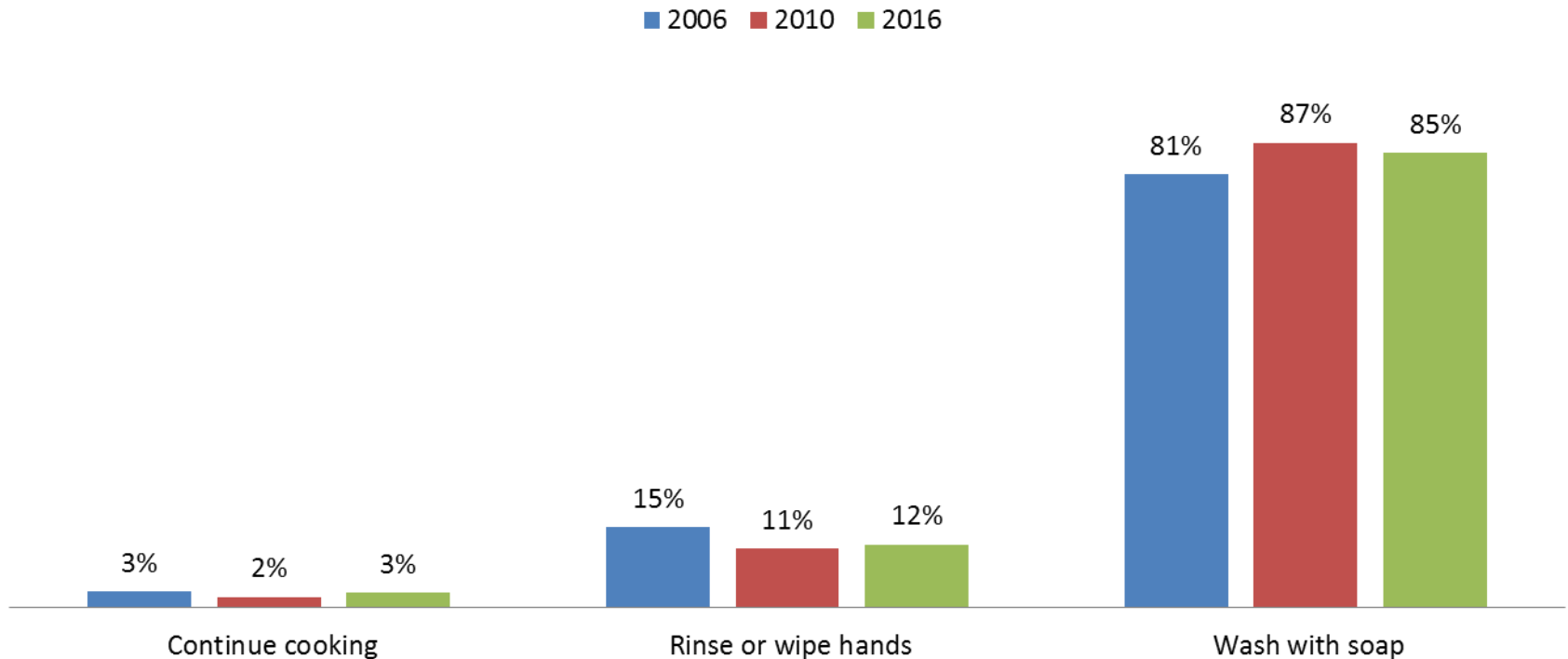
After you have cracked open raw eggs, do you usually continue cooking, or do you first rinse your hands, or wipe them, or wash them with soap?*



*Asked of those who prepare the main meal.

After increasing from 2006 to 2010, the percent who wash with soap after handling raw meat or chicken has remained the same in 2016.

After handling raw meat or chicken, do you usually continue cooking, or do you first rinse your hands, wipe them, or wash them with soap?*

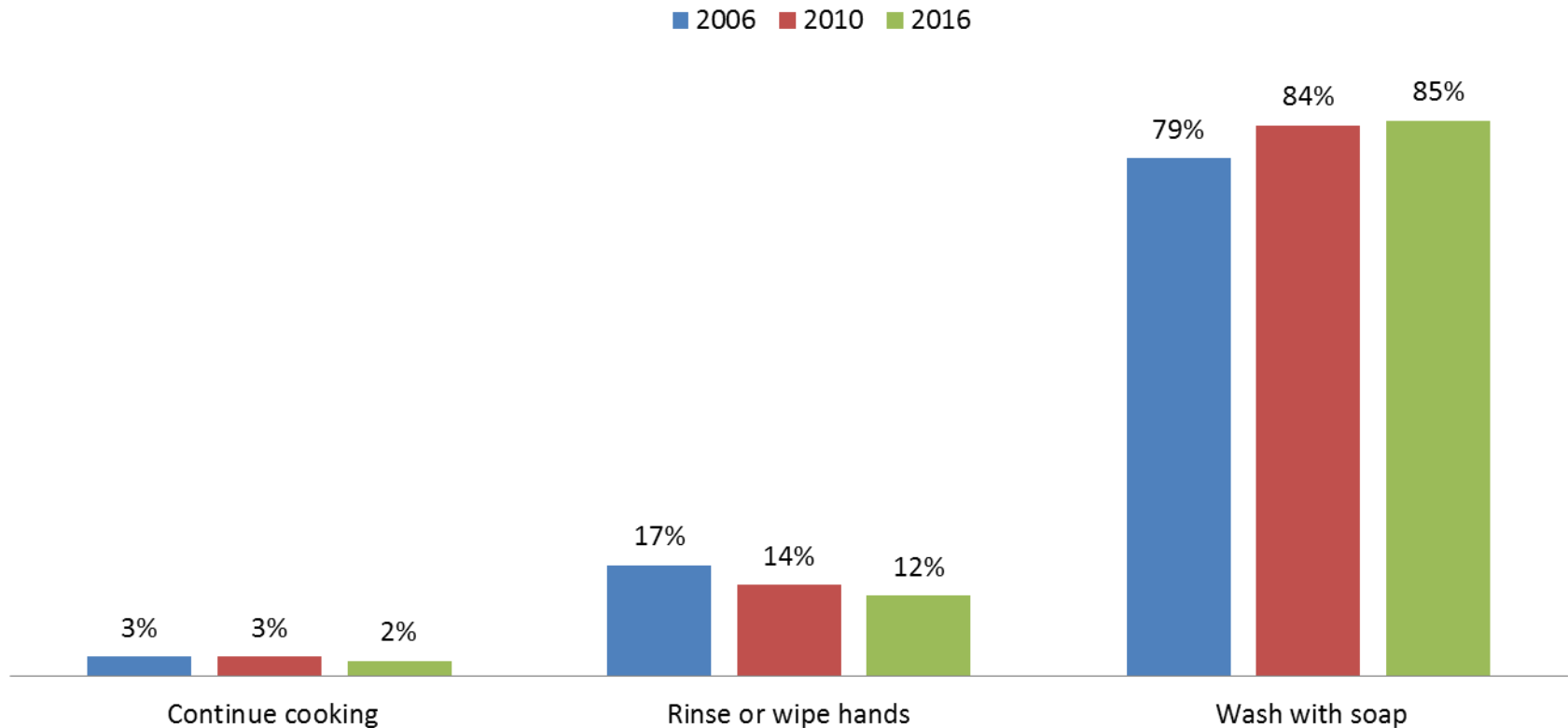


*Asked of those who prepare raw meat or chicken.

After increasing from 2006 and 2010, the percent who wash with soap after handling raw fish has remained the same in 2016.

After handling raw fish, do you usually continue cooking, or do you first rinse your hands, wipe them, or wash them with soap?

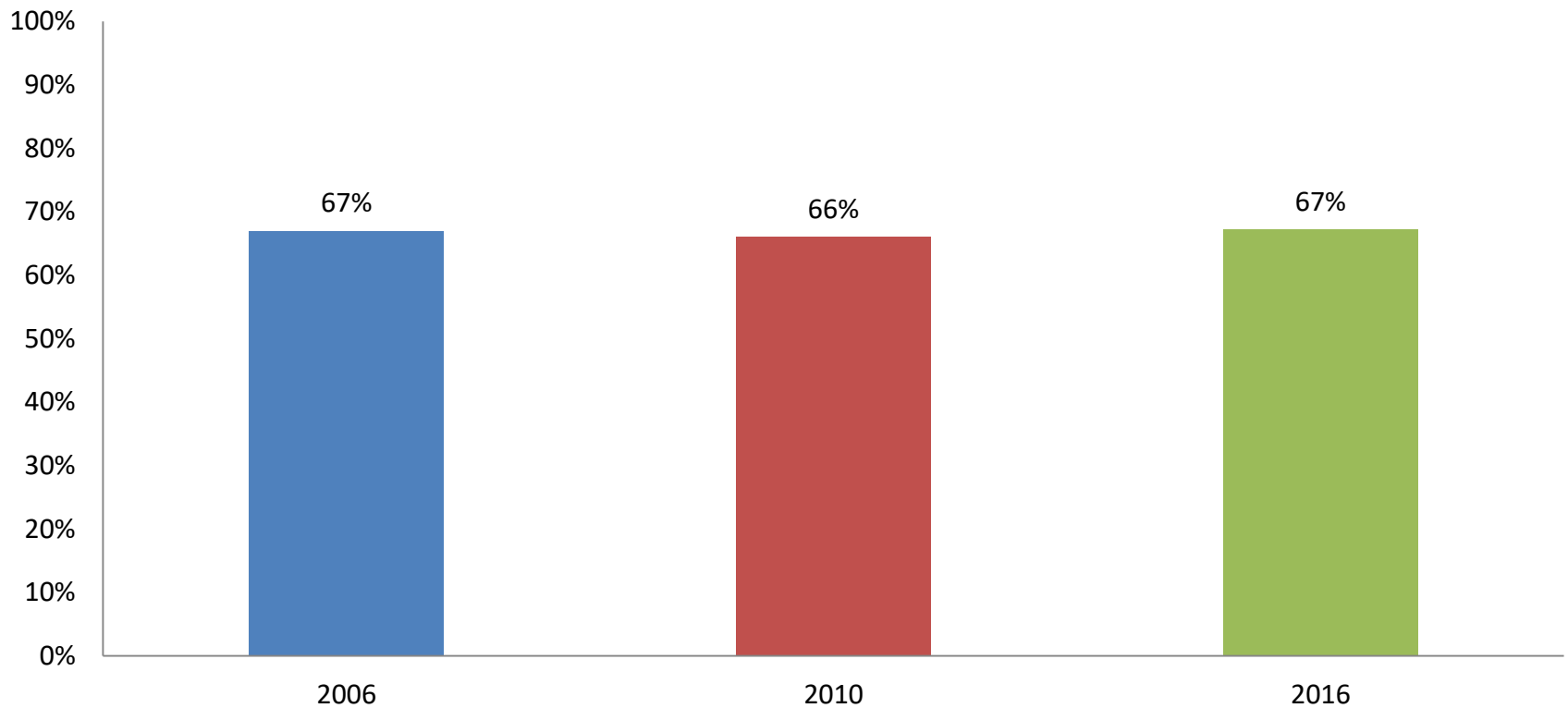
■ 2006 ■ 2010 ■ 2016



*Asked of those who prepare raw fish or shellfish.

The percent who have a food thermometer has not changed.*

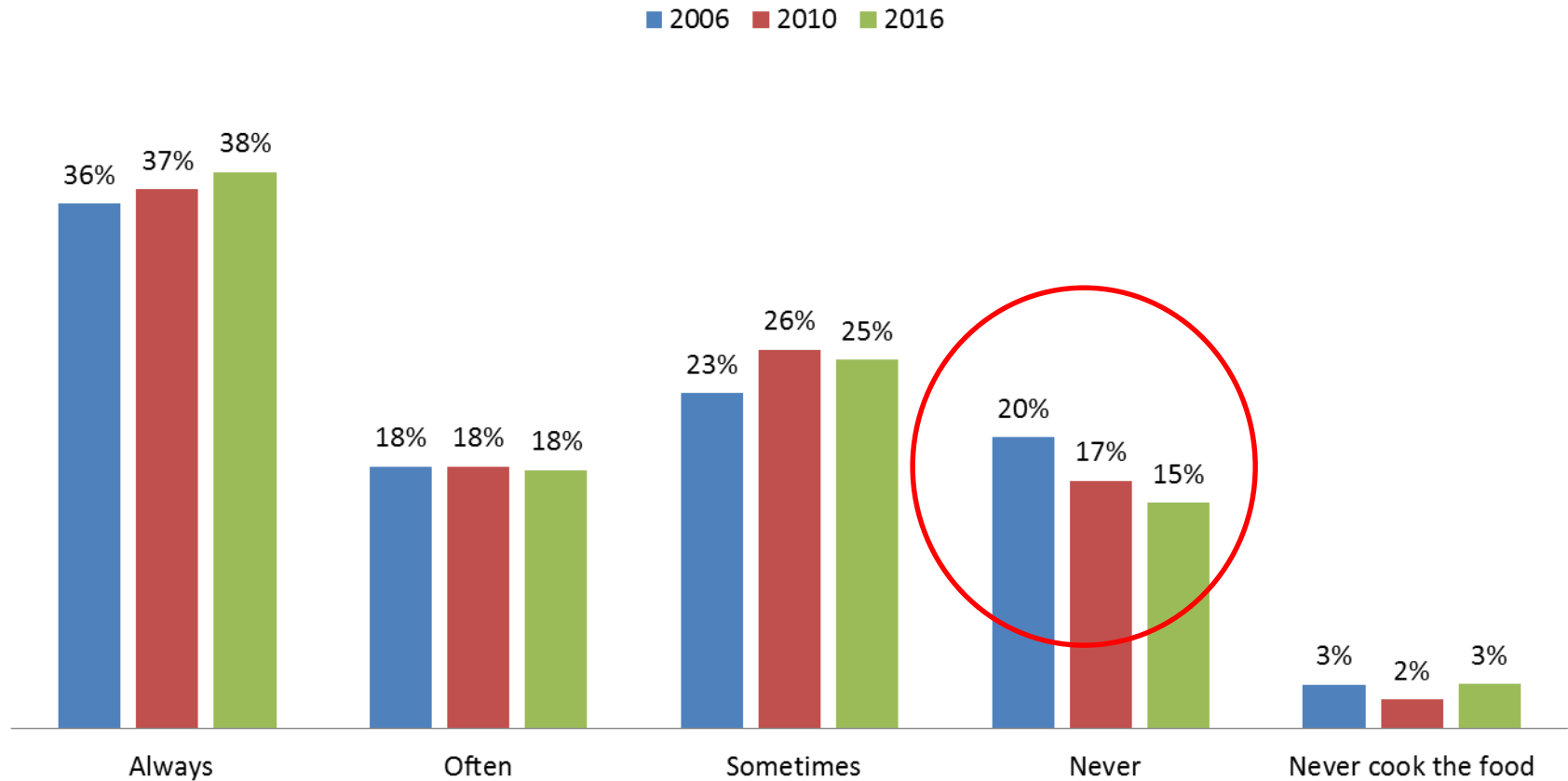
Do you have a food thermometer, such as a meat thermometer? (% Yes)



*This question was asked of everyone, including those who do not prepare food.

The percent of raw meat preparers who *never* use a thermometer when cooking roasts has decreased significantly since 2006.*

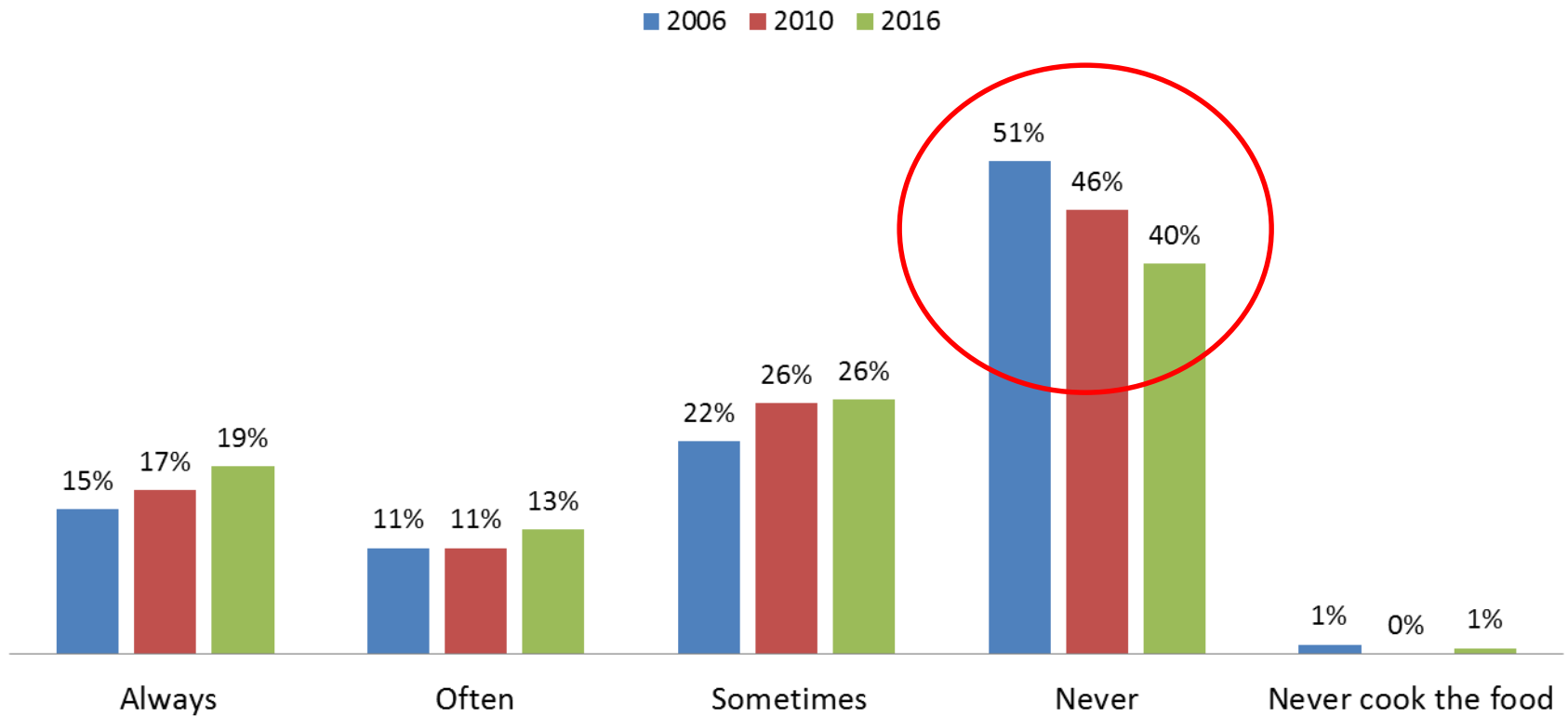
How often do you use a meat thermometer when you cook roasts. Would you say...



*Asked of those who have a food thermometer and prepare raw meat/chicken.

The percent who *never* use a food thermometer for chicken parts decreased significantly since 2006, but remains high.*

How about chicken parts, such as breasts or legs -- how often do you use a thermometer when you cook chicken parts? Would you say...

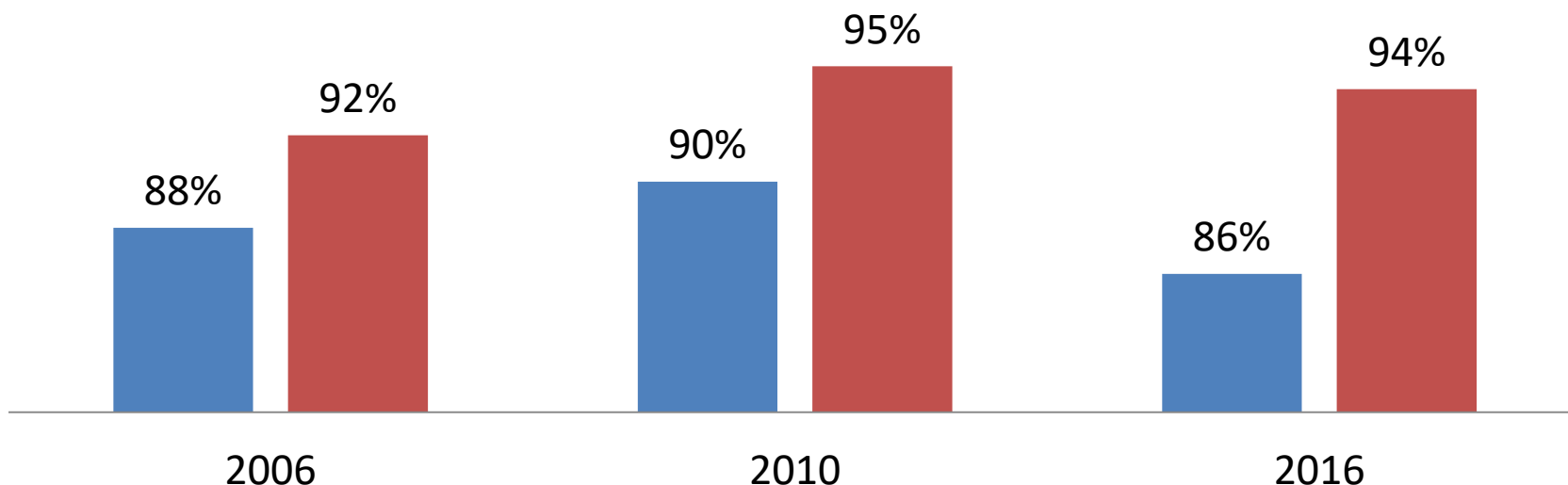


*Asked of those who have a food thermometer and prepare raw meat/chicken.

The percent who wash cutting boards with soap, disinfect it, or use a different one after preparing raw meat or chicken or fish has remained high across the years. There was a slight decline in the percent who wash cutting boards after cutting raw meat between 2010 and 2016.

The percent who wash cutting boards with soap/disinfect or use a different one after cutting raw meat/chicken or fish*

■ raw meat or chicken ■ raw fish

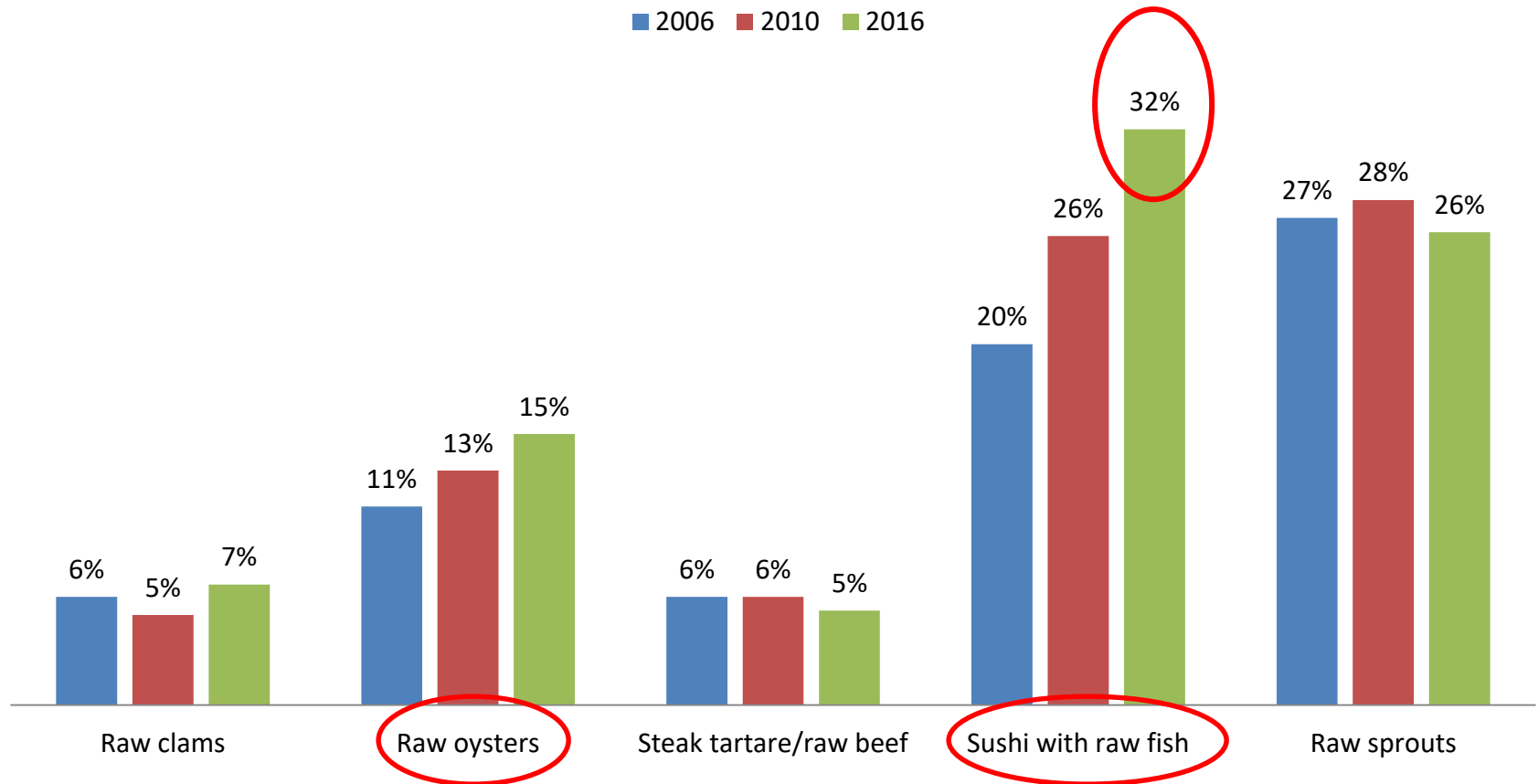


*Only those who prepare raw meat/chicken or raw fish and who answered the question are included in this chart.

CONSUMPTION OF RAW OR UNDERCOOKED FOODS

The percent of respondents reporting eating raw oysters and sushi with raw fish has continued to increase.

In the past 12 months, which of the following raw foods did you eat?



Summary

Perceptions and awareness of food risks:

- Consumers are somewhat concerned about getting a foodborne illnesses from how they prepare food – but they think it is more likely to get a foodborne illness from food prepared at a restaurant compared to food prepared at home.
- Consumers think that raw chicken and raw beef are more likely to be contaminated than other raw foods.
- Awareness of *Listeria* is increasing.

Summary

Food handling behaviors:

- After increasing from 2006 and 2010, hand washing rates have remained constant or decreased from 2010 and 2016.
- Food thermometer ownership rates have remained constant and usage has slightly increased from 2006 and 2016.
- Most consumers wash cutting boards after cutting raw meat.
 - Slight decrease in washing cutting boards after cutting raw meat from 2010 and 2016.

Eating Raw or Undercooked Foods:

- Consumption of raw oysters and raw fish is increasing.

Conclusions

- The 2016 FSS data support previous conclusions/implications about consumer food handling (Levy et. al., 2008; Fischer et. al., 2007; Fein et. al., 2011; Teisl et. al., 2015; Young and Waddell, 2016, etc.).
- Consumers have relatively high levels of confidence in *their* food handling behaviors and the safety of the food supply, and *are not too concerned* about getting a foodborne illness.
- Observational studies (Anderson et. al., 2004; Kendall et. al., 2004; Nauta et. al., 2008; Abbot et. al., 2009; Sneed et. al, 2015, etc.) show that consumers make mistakes:
 - Inattention and distractions while cooking
 - Lack of vigilance (habitual behavior)
 - Mistaken beliefs about the safety of usual practices
 - Especially about the need for food thermometers

Potential strategies for promoting safe food handling practices

- Establish good food handling habits before bad ones have become established
 - Schools
 - Young adults (Teisl et. al., 2016)
- Find teachable moments and trusted sources
 - Life changing events (Young and Waddell, 2016)
- Motivate people to use the food safety knowledge they have
 - Cooking shows/blogs/social media (Nan et. al., 2016)
 - Situational cues (Nauta et. al., 2008)
 - Kitchen and appliance design

Questions?

Thank you



EXTRA SLIDES

HEALTHY PEOPLE 2020

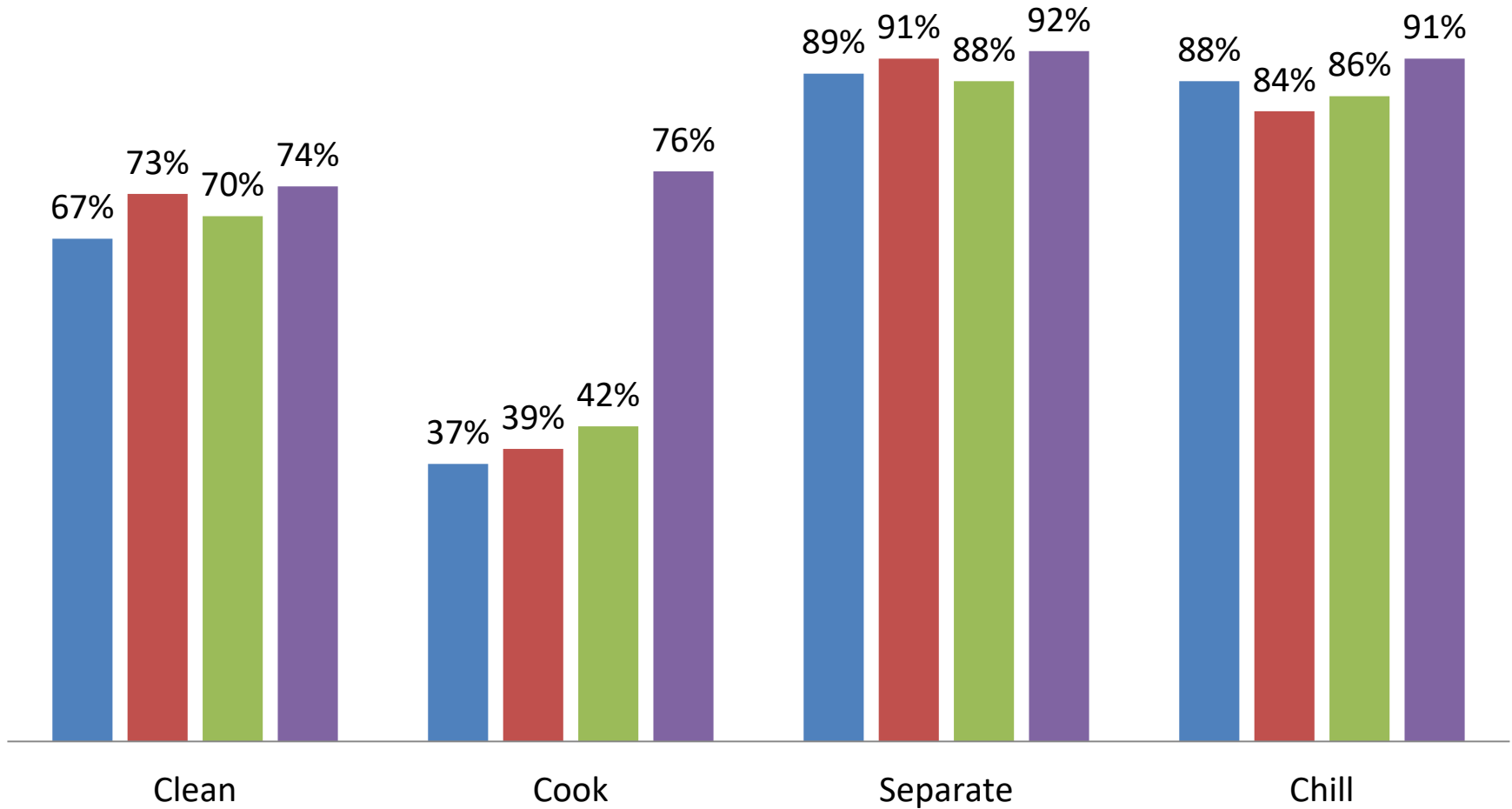
WASHING CHICKEN

PERSONAL ELECTRONIC DEVICES

Healthy People 2020

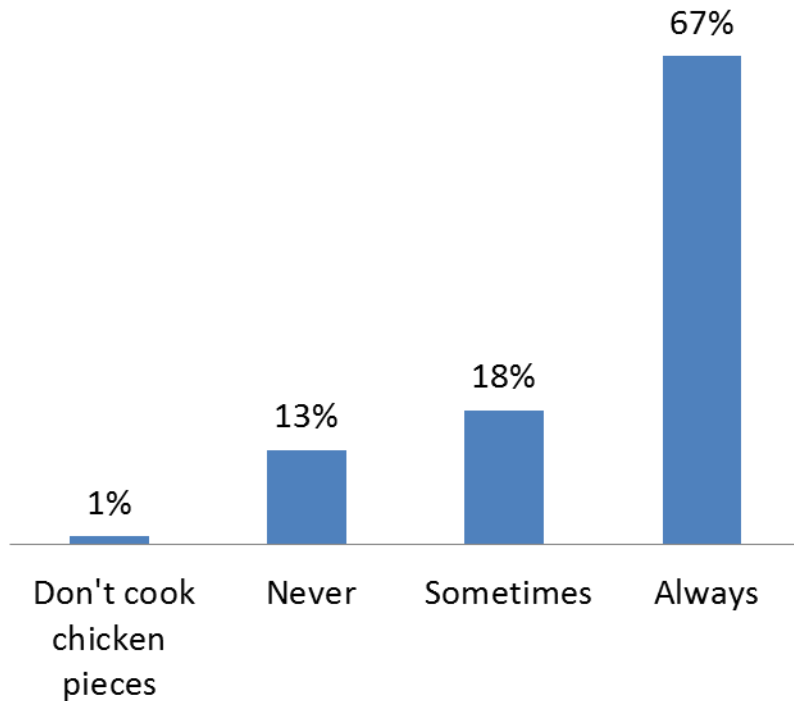


■ 2006 Baseline ■ 2010 ■ 2016 ■ Target

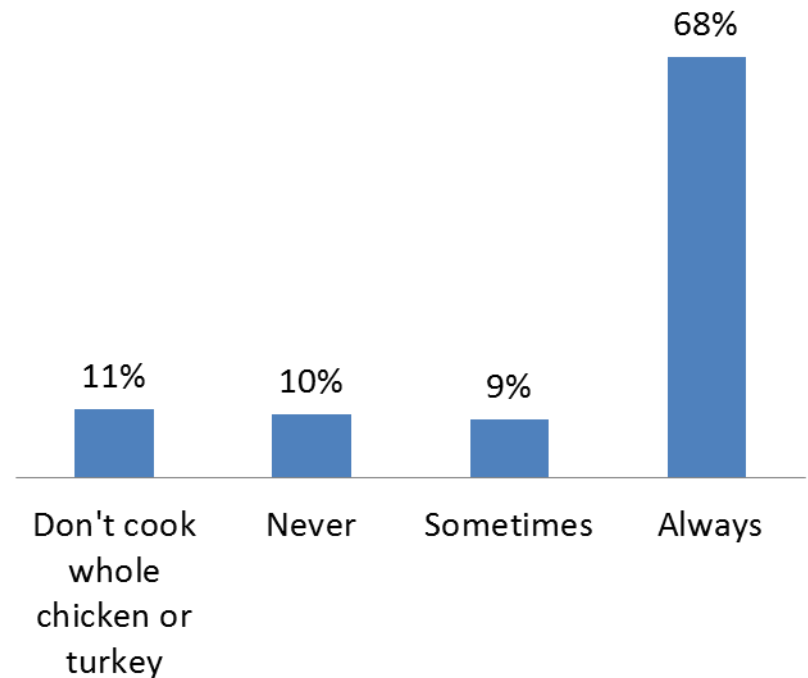


Most Americans report washing chicken parts or whole chickens/turkeys before cooking them.

Would you say that you always, sometimes, or never wash or rinse raw chicken pieces before cooking them?



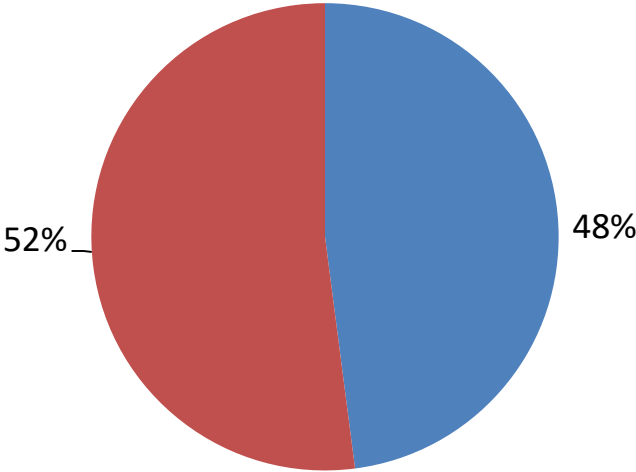
What about when you prepare a whole chicken or whole turkey, do you always, sometimes, or never wash or rinse whole chickens or turkeys before cooking?



About half of respondents use devices such as cell phones, tablets, laptops, telephones, or computers while preparing food.*

Do you ever use a telephone, cell phone, smart phone, tablet, or computer while preparing food?

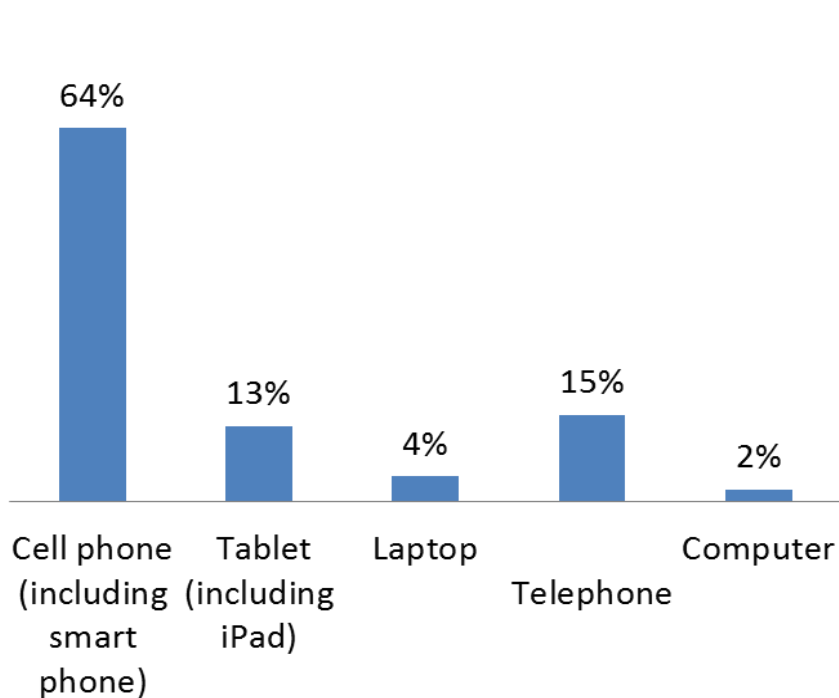
■ Yes ■ No



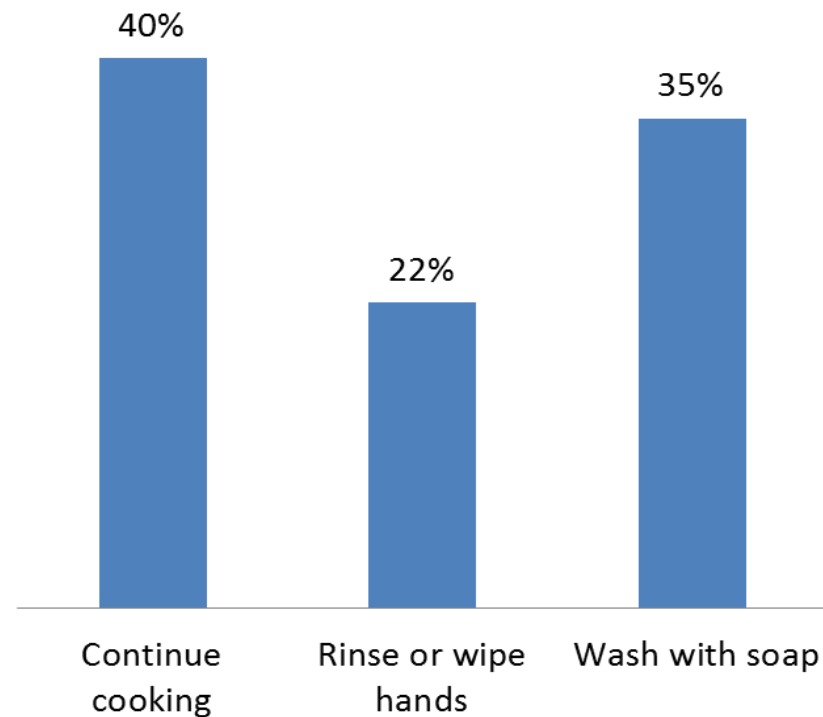
*This was asked of those who have a refrigerator and stove/microwave and for version 2 also had to prepare the main meal.

Of those who use a device while cooking, most use a cell phone (including smart phone) and only about a third wash their hands after touching the device.

Which one do you handle most often while preparing food?

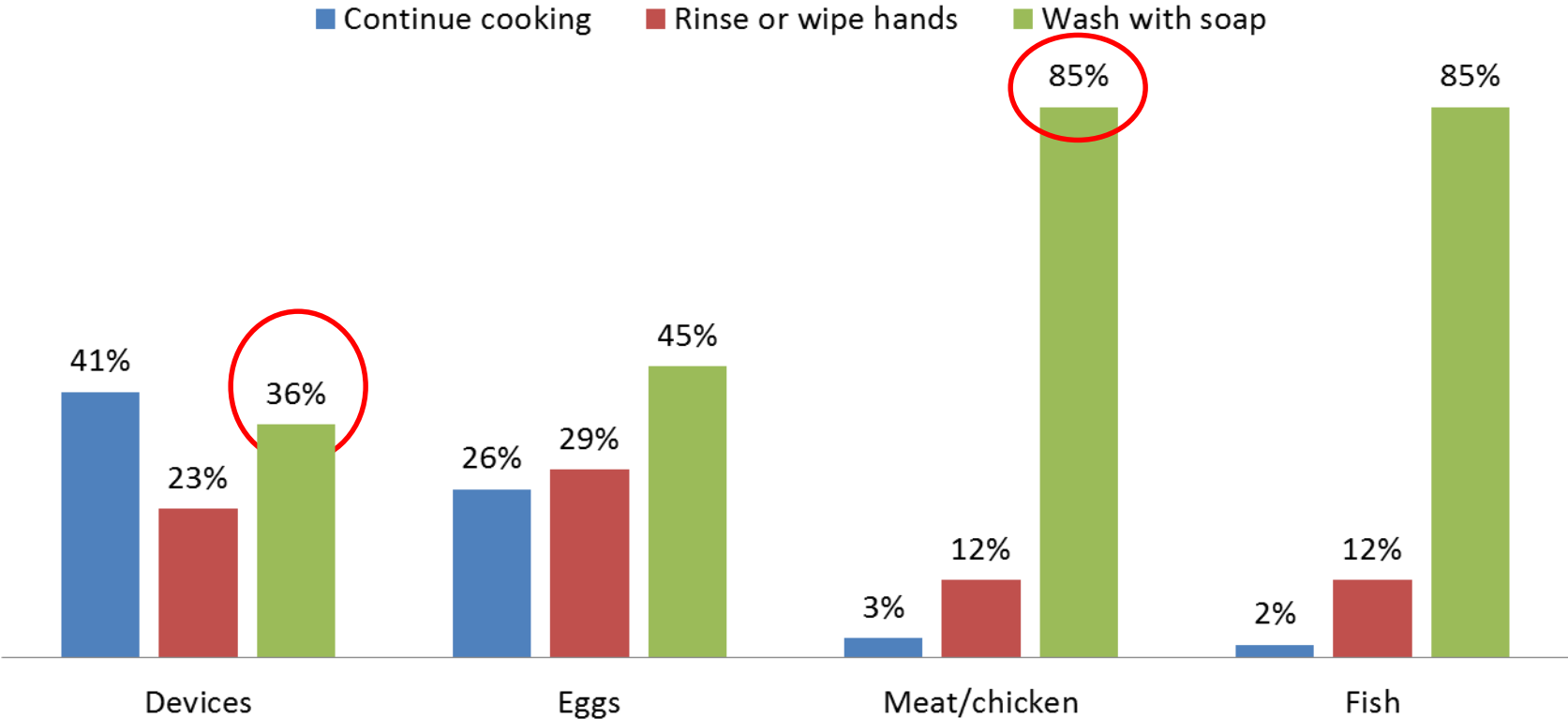


After you touch your [device] while preparing food, what you usually do next? Do you...



Consumers see washing hands after touching devices as less important than washing after touching raw meat/chicken, raw fish, and raw eggs.

After handling [], do you usually continue cooking, or do you first rinse your hands with water, or wipe them or wash with soap?*



*Percentages reported for food preparers who engage in the behavior. This is a different base than what was shown on the previous slide and why the percentages change slightly .