

Healthy People 2010 Operational Definition

10-5. Increase the proportion of consumers who follow key food safety practices.

National Data Source	Food Safety Survey (FSS), FDA, CFSAN; USDA, FSIS.
State Data Source	See Comments.
Healthy People 2000 Objective	Adapted from 12.3 (Food and Drug Safety)
Changes since the 2000 Publication	Revised baseline (see Comments).
Measure	Weighted average percent.
Baseline (Year)	73 (1998)
Target	79
Target-Setting Method	Better than the best racial/ethnic subgroup. For a discussion of target-setting methods, see Part A, section 4.
Numerator	The sum of the average percents of consumers aged 18 years and older who report they follow each of the four key food safety practices: clean, separate, cook, and chill.
Denominator	Number of practices measured (four) among persons aged 18 years and older who prepare food (consumers).
Population Targeted	U.S. civilian, noninstitutionalized population.
Questions Used to Obtain the National Baseline Data	From the 1998 Food Safety Survey: CLEAN ➤ <i>Before you begin preparing food, how often do you wash your hands with soap? Would you say .</i> .. 1) <i>All of the time*</i> 2) <i>Most of the time</i> 3) <i>Some of the time, or</i> 4) <i>Rarely</i>

- *After you have cracked open raw eggs, do you usually continue cooking, or do you first rinse your hands with water, wipe them, or wash them with soap?*
 - 1) *Continue cooking*
 - 2) *Rinse or wipe hands*
 - 3) *Wash with soap**

Open-ended code:

 - 4) *Never handle raw eggs*
- *After handling raw meat or chicken, do you usually continue cooking, or do you first rinse your hands with water, or wipe them, or wash them with soap?*
 - 1) *Continue cooking*
 - 2) *Rinse or wipe hands*
 - 3) *Wash with soap**

Open-ended code:

 - 4) *Don't cut raw meat or chicken*
- *After handling raw fish, do you usually continue cooking, or do you first rinse your hands with water, wipe them, or wash them with soap?*
 - 1) *Continue cooking*
 - 2) *Rinse or wipe hands*
 - 3) *Wash with soap**

Open-ended code:

 - 4) *Never handle raw fish*

SEPARATE

- *After you have used a cutting board or other surface for cutting raw meat or chicken, do you use it as it is for cutting other food to be eaten raw for the same meal, or do you first rinse it, or wipe it, or wash it with soap?*
 - 1) *Use it as it is*
 - 2) *Rinse or wipe it*
 - 3) *Wash with soap**

Open-ended codes:

 - 4) *Wash with bleach**
 - 5) *Use a different cutting board*
 - 6) *Don't cut raw meat or poultry**
- *After cutting raw fish or shellfish, what do you do with the cutting board or surface? [Do you use it as it is for cutting food to be eaten raw for the same meal, or do you first rinse it, or wipe it, or wash it with soap?] (NOTE: MATERIAL IN BRACKETS MAY NOT NEED TO BE READ).*
 - 1) *Use it as it is*
 - 2) *Rinse or wipe it*
 - 3) *Wash with soap**

Open-ended codes:

 - 4) *Wash with bleach**
 - 5) *Use a different cutting board**

COOK--PREFERENCE

- *In your home, are hamburgers usually served...(PROBE: IF DIFFERENT WAYS FOR DIFFERENT PEOPLE: What is the rarest degree of doneness hamburgers are served?)*
 - 1) *Rare*
 - 2) *Medium, or*
 - 3) *Well done?**Open-ended code:
 - 4) *Hamburgers are never served*
- *If (2), When you say hamburgers are usually served "medium," do you mean they are...*
 - 1) *Brown all the way through,* or*
 - 2) *Still have some pink in the middle?*
- *In the past 12 months, did you eat any of the following foods that contain raw eggs? (Did you eat. . .) (In the past 12 months, did you eat . . .)*
 - a) *Raw, homemade cookie or cake batter?*
 - b) *Homemade frosting with raw egg?*
 - c) *Caesar salad with raw egg?*
 - d) *Chocolate mousse with raw egg?*
 - e) *Homemade eggnog?*
 - f) *Homemade mayonnaise?*
 - g) *Homemade ice cream with raw egg?*
 - h) *Shakes with raw egg?*
 - i) *Homemade hollandaise sauce?*

NOTE TO INTERVIEWERS: COMMERCIAL FROZEN OR REFRIGERATED COOKIE DOUGH IS PASTEURIZED; IT DOES NOT CONTAIN RAW EGGS EVEN BEFORE IT IS BAKED. COMMERCIAL CAKE AND COOKIE MIXES USUALLY CALL FOR ADDING RAW EGGS, SO THEY COUNT AS EATING RAW EGGS.)

- *In the past 12 months, which of the following raw foods did you eat?*
 - a) *Raw oysters*
 - b) *Sushi, ceviche (se - VEE - chay), or other raw fish*

COOK--IMPLEMENTATION

- *Thinking of your usual habits over the past year, when you prepare the following foods, how often do you use a thermometer?*
 - a) *Roasts or other large pieces of meat-- how often do you use a thermometer when you cook roasts? Would you say. .*
 - 1) *Always**
 - 2) *Often**
 - 3) *Sometimes,* or*
 - 4) *Never*

Open-ended code:

5) *Never cook the food*

b) *Chicken parts, such as breasts or legs--how often do you use a thermometer when you cook chicken parts? Would you say. . .*

1) *Always**

2) *Often**

3) *Sometimes,* or*

4) *Never*

Open-ended code:

5) *Never cook the food*

c) *How about hamburgers--how often do you use a thermometer when you cook hamburgers? Would you say. . .*

1) *Always**

2) *Often**

3) *Sometimes,* or*

4) *Never*

Open-ended code:

5) *Never cook the food*

CHILL

➤ *If you cook a large pot of soup, stew, or other food with meat or chicken and want to save it for the next day, when do you put the food in the refrigerator? Would it be (READ 1-3) . . .*

1) *Immediately**

2) *After first cooling it at room temperature, or*

3) *After first cooling it in cold water?**

Open-ended codes:

4) *Do not cook such foods*

5) *Would not refrigerate it*

➤ *If (2): For about how long would you let it cool at room temperature? (DO NOT READ LIST)*

1) *Less than 2 hours**

2) *2 hours or more*

➤ *How about if the soup or stew contains fish or shellfish instead of meat or chicken. If you want to save it for the next day, when do you put the food in the refrigerator? Would it be (READ 1-3)*

1) *Immediately**

2) *After first cooling it at room temperature, or*

3) *After first cooling it in cold water?**

Open-ended codes:

4) *Do not cook such foods*

5) *Would not refrigerate it*

➤ *If (2): For about how long would you let it cool at room temperature (DO NOT READ LIST)*

1) *Less than 2 hours**

2) 2 hours or more

*RESPONSE IS CODED AS SAFE.

Expected Periodicity

Periodic

Comments

The key food safety practices are the four Fight BAC!™ Campaign messages: 1) clean: wash hands and surfaces often; 2) separate: don't cross-contaminate; 3) cook: cook to proper temperatures; and 4) chill: refrigerate promptly.

Calculating the estimate for this objective is a three-step process. First, the percent of consumers who have a safe response for each measure of each practice in which they have the opportunity to engage is calculated (the safe responses are indicated with an asterisk in the questionnaire above). The percents for all items that measure each practice are averaged to obtain an average percent who follow each of the four recommendations. These four average percents are summed and divided by 4 to obtain the estimate.

For all practice estimates, the base is the number of people who engage in the behavior and who answered the question. For example, people who did not cook meat or poultry were excluded from the sample base of the questions about meat or poultry; people who did not cook fish were excluded from the practice questions about fish. The total base (excluding nonresponses) was used for the question on hand washing before preparing food and for the questions on consumption of raw foods.

The FSS is a 15- to 20-minute telephone interview with consumers to measure food safety knowledge, concern level, food handling practices, perception of risk, and consumption of potentially hazardous foods. Previous FSS surveys have been conducted in 1988 (3,200 people surveyed), 1993 (1,620 people surveyed), 1998 (2,001 people surveyed), and 2001 (4,482 people surveyed). The next collection is scheduled for early 2006.

The baseline was revised from 72 percent to 73

percent after the November 2000 publication.

A proposed State data source is the Behavioral Risk Factor Surveillance System (BRFSS). In the past, the BRFSS has included an optional food safety module that has questions that are similar but not identical to FSS questions on hand washing and cutting surfaces. It has also included a question about eating hamburgers that are pink in the middle, but no question about using a food thermometer to judge when hamburgers are done. It has no question about chilling foods. The food safety module has been available since 1995. In that year, five States included the module in their BRFSS. Additional States have used the module in subsequent years, but the number of States collecting the food safety data remains low.

Note: According to a USDA study on premature browning, more than 25 percent of ground beef patties turn brown before reaching a safe internal temperature (160 degrees F).¹ Information from the CDC links eating undercooked, pink ground beef with a higher risk of illness.² Therefore, consumers should not eat ground beef patties unless a food thermometer is used to verify the temperature.^{3, 4, 5, 6}

This objective differs from Healthy People 2000 objective 12.3, which tracked refrigerating perishable foods, washing cutting boards with soap, and washing utensils with soap as individual behaviors, instead of tracking the four key food safety practices combined.

For some objectives, data do not meet the criteria for statistical reliability, data quality, or confidentiality and have been suppressed. Information on suppression of data for the major Healthy People 2010 data systems has been published in a *Healthy People Statistical Note*.⁷

See Appendix A for focus area contact information.

References

1. U.S. Department of Agriculture (USDA). FSIS/ARS Study: Premature Browning of Cooked Ground Beef. Washington, DC: Food Safety and Inspection Service (FSIS), 1998.
2. Mead, P.S.; Finelli, L.; Lambert-Fair, M.A.; et al. Risk factors for sporadic infection with *Escherichia coli* O157:H7. *Archives of Internal Medicine* 157:204-208, 1997.
3. USDA. FSIS Key Facts Thermometer Use for Cooking Ground Beef Patties. Washington, DC: FSIS, 1998.
4. USDA. Color of Cooked Ground Beef as It Relates to Doneness, Technical Information. Washington, DC: FSIS, 1998.
5. USDA. Thermy™: Use a Food Thermometer. Washington, DC: FSIS, 2000.
6. USDA. Kitchen Thermometers. Washington, DC: FSIS, Revised April 2000.
7. Klein, R.J.; Proctor, S.E.; Boudreault, M.A.; Turczyn, K.M. Healthy People 2010 Criteria for Data Suppression. *Statistical Notes* No. 24. Hyattsville, MD: National Center for Health Statistics. 2002.