



Prevention Status Reports



PSR

Office for State, Tribal, Local and Territorial Support

Prevention Status Report for Georgia

Food Safety

Accessed on June 9, 2016

About the Prevention Status Reports

The Prevention Status Reports (PSRs) highlight—for all 50 states and the District of Columbia—the status of public health policies and practices designed to address the following important public health problems and concerns:



PSR Framework






Each report follows a simple framework:

- Describe the public health *problem* using public health data
- Identify potential *solutions* to the problem drawn from research and expert recommendations
- Report the *status* of those solutions for each state and the District of Columbia

Criteria for Selection of Policies and Practices

The policies and practices reported in the PSRs were selected because they—

- Can be monitored using state-level data that are readily available for most states and the District of Columbia
- Meet one or more of the following criteria:

-  Supported by systematic review(s) of scientific evidence of effectiveness (e.g., *The Guide to Community Preventive Services*)
-  Explicitly cited in a national strategy or national action plan (e.g., *Healthy People 2020*)
-  Recommended by a recognized expert body, panel, organization, study, or report with an evidence-based focus (e.g., Institute of Medicine)

Ratings

The PSRs use a simple, three-level rating scale—green, yellow, or red—to show the extent to which the state has implemented the policy or practice in accordance with supporting evidence and/or expert recommendations. The ratings reflect the *status of policies and practices* and do not reflect the *status of efforts* of state health departments, other state agencies, or any other organization to establish or strengthen those policies or practices.

Suggested Citations

For a state report:

Centers for Disease Control and Prevention. *Prevention Status Reports: [State name]*. Atlanta, GA: US Department of Health and Human Services; 2016. Accessed [month date, year].

For the National Summary:

Centers for Disease Control and Prevention. *Prevention Status Reports: National Summary*. Atlanta, GA: US Department of Health and Human Services; 2016. Accessed [month date, year].

Public Health Problem



Diseases spread by a wide variety of contaminated foods continue to challenge the public health system. Bacteria, viruses, parasites, and chemicals can cause foodborne diseases, which can vary from mild to fatal (1). Robust surveillance for these diseases is essential for detecting outbreaks (2). It also provides critical information to food regulatory agencies and the food industry so that appropriate prevention and control measures can be implemented (3,4).



CDC estimates that each year, roughly 1 in 6 Americans (or 48 million people) gets sick, 128,000 are hospitalized, and 3,000 die due to foodborne diseases (5). Risk for infection and severity of illness vary at different ages and stages of health (6).



Foodborne illness is costly. According to a 2015 study, 15 pathogens alone are estimated to cost \$15.5 billion in the United States per year. This includes medical costs (doctor visits and hospitalizations) and productivity loss due to premature death and time lost from work (7).

Solutions and Ratings

The three practices in this report are recommended by the Council to Improve Foodborne Outbreak Response and the US Food and Drug Administration (FDA) because scientific evidence supports their effectiveness in improving foodborne disease surveillance, detection, and prevention (2–4). These practices are

- Increasing the speed of DNA fingerprinting using pulsed-field gel electrophoresis (PFGE) testing for all reported cases of Shiga toxin-producing *Escherichia coli* (*E. coli*) O157
- Increasing the completeness of PFGE testing of *Salmonella*
- Adopting provisions recommended in the FDA Food Code into state food safety regulations

Other strategies supported by scientific evidence include using trained staff and standardized questionnaires to interview persons with suspected foodborne illness as soon as possible after illness is reported and conducting environmental assessments as a routine component of foodborne disease outbreak investigations (2).

Status of Policy and Practice Solutions

Speed of pulsed-field gel electrophoresis testing of reported *E. coli* O157 cases

The annual proportion of E. coli O157 PFGE patterns reported to CDC (i.e., uploaded into PulseNet, the CDC-coordinated national molecular subtyping network for foodborne disease surveillance) within four working days of receiving the isolate in the state or local public health PFGE lab. PFGE is a technique used to distinguish between strains of organisms at the DNA level.

In 2014, Georgia tested 100% of *E. coli* O157 cases within 4 days (8).

| Rating | Percentage of annual reported cases tested within four days |
|--------|-------------------------------------------------------------|
| Green | ≥90.0% |
| Yellow | 60.0%–89.9% |
| Red | <60.0% |

CDC target: Testing of ≥90% of annual reported *E. coli* O157 cases within four days. The CDC Public Health Emergency Preparedness Cooperative Agreement, which provides federal funding to state, local, tribal, and territorial health departments, has two national laboratory performance targets for food safety, including the *E. coli* testing target. Performing DNA fingerprinting as quickly as possible for all Shiga toxin-producing *E. coli* improves outbreak detection, helps prevent additional cases, and identifies prevention and control measures for food regulatory agencies and the food industry (2).

How This Rating Was Determined

The speed of PFGE testing for reported *E. coli* O157 cases was determined by accessing the [PulseNet \(http://www.cdc.gov/pulsenet/\)](http://www.cdc.gov/pulsenet/) national *E. coli* O157 database for calendar year 2014. Turnaround times were calculated per lab by subtracting the received date (receipt in the PFGE lab) from the upload date (upload to the PulseNet national database), excluding weekends and federal holidays. The percentage of samples tested within four days was calculated by dividing the number tested within four days (numerator) by the total number uploaded to the PulseNet national database (denominator). If the received date for a sample was missing, the sample was counted in the denominator but not the numerator, thus lowering the percentage.

The rating reflects the extent to which the state tested *E. coli* O157 cases within four days as determined by the PulseNet database.

Completeness of pulsed-field gel electrophoresis testing of reported *Salmonella* cases

The annual proportion of *Salmonella* cases reported to CDC's National Notifiable Diseases Surveillance System with PFGE patterns uploaded into PulseNet.

In 2014, Georgia tested 100% of reported *Salmonella* cases (8,9).

| Rating | Percentage of annual reported cases tested by PFGE |
|--------|----------------------------------------------------|
| Green | ≥90.0% |
| Yellow | 60.0%–89.9% |
| Red | <60.0% |

Research and experts in the field agree that performing DNA fingerprinting of all *Salmonella* cases would improve outbreak detection, help prevent additional cases, and identify prevention and control measures for food regulatory agencies and the food industry (2).

How This Rating Was Determined

The completeness of PFGE testing of reported *Salmonella* cases was determined by accessing the PulseNet (<http://www.cdc.gov/pulsenet/>) national *Salmonella* database for calendar year 2014. The number of *Salmonella* entries per state was determined and used as the numerator. The denominator was the number of cases reported by each lab to the National Notifiable Diseases Surveillance System for calendar year 2014.

The rating reflects the proportion of all *Salmonella* cases tested in the state as determined by the PulseNet database.

State adoption of selected foodborne disease-related provisions

Inclusion in the state's food safety regulations of selected provisions contained in the 2013 FDA Food Code related to norovirus and other foodborne illnesses.

As of September 2014, Georgia had adopted all four of the selected provisions in the 2013 FDA Food Code related to norovirus and other foodborne diseases (10).

| Rating | Number of selected provisions contained in the 2013 FDA Food Code adopted into the state food code |
|--------|----------------------------------------------------------------------------------------------------|
| Green | All four |
| Yellow | Three |
| Red | Two or fewer |

The FDA publishes model food safety practices to prevent transmission of norovirus and other foodborne illnesses, but adoption is at the discretion of state governments (3). CDC has identified four provisions that are critical to reducing foodborne illnesses (11):

- Excluding ill food service staff from working until at least 24 hours after symptoms such as vomiting and diarrhea have ended (section 2-2 of the 2013 FDA Food Code)
- Prohibiting bare hand contact with ready-to-eat food (section 3-301.11)
- Requiring at least one employee in a food service establishment to be a certified food protection manager (sections 2-102.12 and 2-102.20)
- Requiring food service employees to wash their hands (section 2-3)

How This Rating Was Determined

Publicly accessible state food code regulations were assessed for the presence of the selected provisions contained in the 2013 FDA Food Code (10). The rating reflects the number of provisions included in state food safety regulations.

References

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Preventing Norovirus Outbreaks

Food service has a key role

 **20M**

About 20 million people get sick from norovirus each year, most from close contact with infected people or by eating contaminated food.

#1



Norovirus is the leading cause of disease outbreaks from contaminated food in the US.



70%

Infected food workers cause about 70% of reported norovirus outbreaks from contaminated food.

Norovirus often gets attention for outbreaks on cruise ships, but those account for only about 1% of all reported norovirus outbreaks. Norovirus is very contagious, and outbreaks can occur anywhere people gather or food is served. People with norovirus usually vomit and have diarrhea. Some may need to be hospitalized and can even die. Infected people can spread norovirus to others through close contact or by contaminating food and surfaces. Food service workers who have norovirus can contaminate food and make many people sick. In norovirus outbreaks for which investigators reported the source of contamination, 70% are caused by infected food workers.

The food service industry can help prevent norovirus outbreaks by:

- Making sure that food service workers practice proper hand washing and avoid touching ready-to-eat foods, such as raw fruits and vegetables, with their bare hands before serving them.
- Certifying kitchen managers and training food service workers in food safety practices.
- Requiring sick food workers to stay home, and considering use of paid sick leave and on-call staffing, to support compliance.

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Want to learn more? Visit

www

<http://www.cdc.gov/vitalsigns>

Problem

Norovirus outbreaks from contaminated food are common in food service settings.

People infected with norovirus are very contagious.

- ◇ While sick, they shed billions of tiny viral particles in their stool and vomit. It takes a very small amount—as few as 18 viral particles—to make another person sick. People can get sick if they are exposed to a tiny amount of stool or vomit from an infected person.
- ◇ They are most contagious when sick with vomiting and diarrhea, but may also infect others before symptoms start and after they feel better.
- ◇ Because symptoms come on suddenly, an infected person who vomits in a public place may expose many people.

Food service workers often go to work when they are sick and may contaminate food.

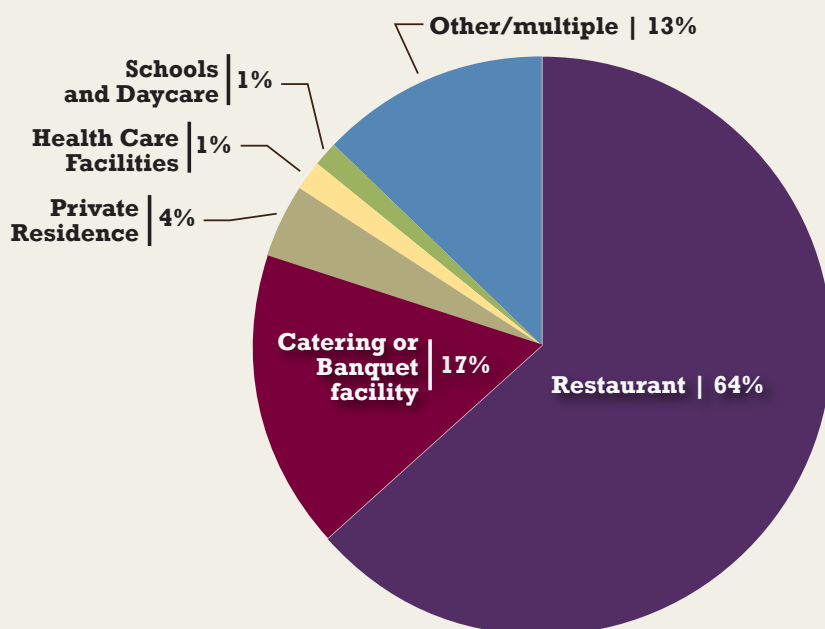
- ◇ 1 in 5 food service workers have reported working while sick with vomiting and diarrhea. Fear of job loss and leaving coworkers short staffed were significant factors in their decision.

- ◇ Of outbreaks caused by infected food workers, 54% involve food workers touching ready-to-eat-foods with their bare hands. Ready-to-eat foods are foods that are ready to be served without additional preparation, such as washed raw fruits and vegetables for salads or sandwiches, baked goods, or items that have already been cooked.
- ◇ Observations of food service workers have shown that they practice proper hand washing only 1 of 4 times that they should.

Norovirus is hard to kill and stays on food, kitchen surfaces, and utensils. It can

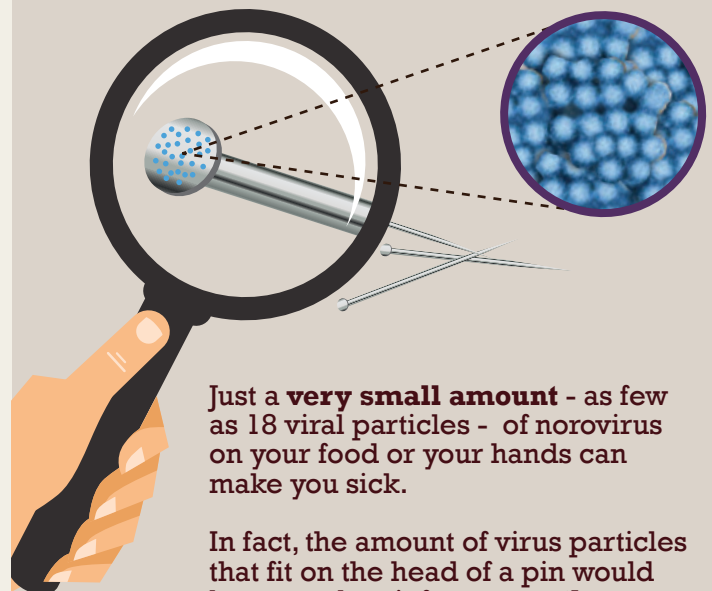
- ◇ Remain infectious on foods even at freezing temperatures and until heated above 140°F.
- ◇ Stay on countertops and serving utensils for up to 2 weeks.
- ◇ Resist many common disinfectants and hand sanitizers.

Where do norovirus outbreaks from food contamination happen?



SOURCE: CDC National Outbreak Reporting System, 2009-2012

How contagious is norovirus?



Just a **very small amount** - as few as 18 viral particles - of norovirus on your food or your hands can make you sick.

In fact, the amount of virus particles that fit on the head of a pin would be enough to infect **more than 1,000 people!**

Source: Journal of Medical Virology, August, 2008

Ways to prevent norovirus outbreaks from food contamination

Kitchen managers should be trained and certified in food safety and ensure that **all food service workers follow food safety practices** outlined in the **FDA model Food Code and CDC guidelines**.



Stay home when sick

Food service workers should stay home when sick with vomiting or diarrhea and for at least 48 hours after symptoms stop.



Avoid touching food with bare hands

Use utensils and single-use disposable gloves to avoid touching ready-to-eat foods with bare hands.



Cook shellfish thoroughly

Avoid serving undercooked (below 140°F) oysters and other shellfish.



Clean and sanitize surfaces and utensils

Regularly clean and sanitize kitchen surfaces and frequently touched objects, using a chlorine-based product or other sanitizer approved by the Environmental Protection Agency for use against norovirus.

Rinse fruits and vegetables

Carefully rinse fruits and vegetables before preparing and serving them.



Wash your hands

Wash all parts of hands and exposed portions of arms by rubbing them together vigorously with soap and warm water for at least 20 seconds in a designated hand washing sink.



What Can Be Done



Federal government is

- ◊ Working with state and local agencies to encourage adoption and effective enforcement of all FDA model Food Code provisions, including worker health and hygiene.
- ◊ Funding state and local efforts to detect, respond, investigate, and report norovirus outbreaks more thoroughly.
- ◊ Building lab capacity for advanced molecular detection to quickly detect and track the source of norovirus outbreaks using genome sequencing and analysis.



State and local governments can

- ◊ Adopt and enforce all provisions of the FDA model Food Code to better safeguard food.
- ◊ Investigate norovirus outbreaks thoroughly to identify sources and causes and to improve control strategies.
- ◊ Participate in CDC-supported surveillance efforts to improve monitoring and evaluation of outbreaks, including the National Outbreak Reporting System, National Voluntary Environmental Assessment Information System, Norovirus Sentinel Testing and Tracking, and CaliciNet.



Food service industry can

- ◊ Adhere to food safety laws and regulations.
- ◊ Certify kitchen managers and train food service workers in food safety practices.
- ◊ Establish policies that require workers to stay home while sick with vomiting and diarrhea and for at least 48 hours after symptoms stop.
- ◊ Foster a work environment that encourages workers to stay home when sick, by considering such measures such as paid sick leave and a staffing plan that includes on-call workers.



Food service workers can

- ◊ Tell a manager when sick with vomiting and diarrhea.
- ◊ Wash hands carefully and often with soap and warm water for at least 20 seconds (*time it takes to sing the “Happy Birthday” song through twice*), especially after using the restroom.
- ◊ Use utensils and single-use disposable gloves to avoid touching ready-to-eat foods with bare hands.
- ◊ Regularly clean and sanitize kitchen surfaces and frequently touched objects, using a chlorine-based product or other sanitizer approved by the Environmental Protection Agency for use against norovirus.
- ◊ Immediately block off, clean, and disinfect areas where there has been a vomiting or diarrheal incident.
- ◊ Carefully wash fruits and vegetables and avoid serving undercooked (below 140°F) oysters and other shellfish.



Everyone can

- ◊ Wash hands carefully and often with soap and warm water for at least 20 seconds, and avoid preparing food for others while sick.
- ◊ Report suspected illness from food to your local health department.
- ◊ Visit www.FoodSafety.gov for the latest information.

www.cdc.gov/vitalsigns/norovirus

www.cdc.gov/mmwr

For more information, please contact

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Publication date: 06/03/2014