Prevention Status Report | **2013**

Food Safety — Minnesota

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 prevent or reduce important health problems. This report focuses on food safety and briefly describes why it is a public health concern, both for Minnesota and the United States as a whole. It also provides an overview of solutions (i.e., evidence-based or expert-recommended policy and practice options) for effectively monitoring food safety problems and detecting and investigating outbreaks of foodborne disease and reports the status of these solutions in Minnesota.

PSR Framework

The PSRs follow 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 included 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 to provide a practical assessment of the status of policies and practices in each state and the District of Columbia. It is important to note that the ratings reflect the *status of policies and practices* and do not reflect the *status of efforts* by state health departments, other state agencies, or other organizations to establish or strengthen those policies and practices. Strategies for improving public health vary by individual state needs, resources, and public health priorities.

More Information

For more information about public health activities in Minnesota, visit the Minnesota Department of Health website (http://www.health.state.mn.us/). For additional resources and to view reports for other health topics, visit the CDC website (http://www.cdc.gov/stltpublichealth/psr/).

Suggested Citation

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www.cdc.gov/stltpublichealth/psr

Centers for Disease Control and Prevention
Office for State, Tribal, Local and Territorial Support

Food Safety — Minnesota

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. It also provides critical information to food regulatory agencies and the food industry so that appropriate control and preventive measures can be implemented (2).

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 (3). Risk for infection and severity varies at different ages and stages of health (4).

Foodborne illness is costly. According to a 2012 study, 14 pathogens alone are estimated to cost $14.1 billion in the United States per year. This includes medical costs (doctor visits and hospitalizations), loss due to premature death, and time lost from work (5).

Policy and Practice Solutions

This report focuses on select practices recommended by the Council to Improve Foodborne Outbreak Response on the basis of scientific evidence supporting their effectiveness in improving foodborne disease surveillance and detection activities (2). These practices include 1) 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 and 2) increasing the completeness of PFGE testing of *Salmonella*. PFGE is a technique used to distinguish between strains of organisms at the DNA level. For information about why certain food safety-related indicators were selected, and for links to additional data and resources, visit the CDC website (http://www.cdc.gov/stltpublichealth/psr/foodsafety/).

Food Safety **Minnesota**

Status of Policy and Practice Solutions in Minnesota

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

In 2011, Minnesota tested 92.2% of *E. coli* O157 cases within 4 days (6).

CDC target: Testing of 90% of annual reported *E. coli* O157 cases within four days. The CDC Public Health Emergency Preparedness Cooperative Agreement established this and other national performance targets for food safety and provides federal funding to states and the District of Columbia. Performing DNA fingerprinting as quickly as possible for all Shiga toxin-producing *E. coli* improves detection of outbreaks. Rapid outbreak detection can help prevent additional cases and identify control and prevention measures for food regulatory agencies and the food industry (2).

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

Completeness of PFGE testing of reported *Salmonella* cases

In 2011, Minnesota tested 100% of reported *Salmonella* cases (6,7).

Research and experts in the field agree that performing DNA fingerprinting of all *Salmonella* cases would improve detection of outbreaks (2).

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

Simplified Rating System

A more detailed explanation of the rating system for food safety is available at http://www.cdc.gov/stltpublichealth/psr/foodsafety/.

Green
The policy or practice is established in accordance with supporting evidence and/or expert recommendations.

Yellow
The policy or practice is established in partial accordance with supporting evidence and/or expert recommendations.

Red
The policy or practice is either absent or not established in accordance with supporting evidence and/or expert recommendations.

Indicator Definitions

Speed of PFGE 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 District of Columbia public health PFGE lab.

Completeness of PFGE 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.

References

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