

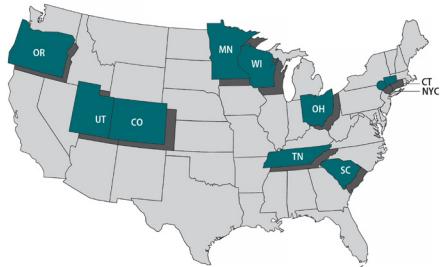
FoodCORE: Year 11 Summary Report

Foodborne Diseases Centers for Outbreak Response Enhancement

January 1, 2021 – December 31, 2021

Background

The Foodborne Diseases Centers for Outbreak Response Enhancement (FoodCORE) program addresses gaps in foodborne disease response through enhanced capacity in laboratory, epidemiology, and environmental health to improve timeliness and completeness of outbreak response activities. The FoodCORE centers during Year 11 (January 1, 2021–December 31, 2021) were Colorado, Connecticut, Minnesota, New York City, Ohio, Oregon, South Carolina, Tennessee, Utah, and Wisconsin.



Project Highlights

In 2021, public health agencies around the world continued their fight against the ongoing COVID-19 pandemic. While some staff slowly transitioned back to their regular duties, FoodCORE centers still had limited epidemiology, laboratory, and environmental health staff available to investigate outbreaks and conduct routine surveillance for foodborne and enteric diseases. Often, staff supported enteric disease work and the pandemic response concurrently. FoodCORE centers continued to identify innovative solutions, leverage their enhanced capacity, and adapt their workflows to maintain enteric work during the pandemic.

FoodCORE student teams provided significant support to health departments that had limited capacity to conduct enteric disease investigations. Compared with 2020, the volume of enteric disease cases increased in 2021. As enteric caseloads returned to pre-pandemic levels, students provided the capacity to complete follow-up on cases, assist with data entry, maintain enhanced surveillance activities, and carry out investigations.

During the pandemic, FoodCORE centers revised their enteric disease investigation protocols and systems to improve efficiency and function in a remote work environment. By 2021, centers permanently adopted successful practices that were beneficial in improving data quality and efficiency in surveillance activities.

For example, more centers transitioned their paper interview forms to Research Electronic Data Capture (REDCap), a free and secure web application for building and managing online surveys and databases. REDCap helped streamline workflows and reduce reporting burden on staff.

Some FoodCORE activities were still paused during 2021, including the revision of model practices. To date, four [FoodCORE model practices](#) have been published that share the cumulative success of FoodCORE centers so that others can learn from their experiences.

Despite the strain that the COVID-19 pandemic placed on the public health workforce, FoodCORE centers, in collaboration with OutbreakNet Enhanced sites, published a [success story](#) to document how they leveraged their existing resources to maximize support for enteric disease investigations while simultaneously responding to the COVID-19 pandemic.

Each year, FoodCORE staff at CDC and in FoodCORE centers share progress and updates on their activities at national meetings and conferences, including the Council of State and Territorial Epidemiologists (CSTE) annual conference and the Integrated Foodborne Outbreak Response and Management (InFORM) regional meetings. In 2021, CSTE and InFORM regional meetings were among many meetings and conferences that were held virtually.

Program Performance

Centers report metrics once a year to document changes resulting from targeted FoodCORE resources. Metrics for *Salmonella*, Shiga toxin-producing *Escherichia coli* (STEC), and *Listeria* (SSL) have been collected since late 2010. Metrics for norovirus, other etiologies, and unknown etiology (NOU) investigations have been collected since 2012. The metrics collected by FoodCORE centers are revised as needed to best meet program goals.

While FoodCORE centers were able to maintain most of their core activities in 2021, some metrics capture the impacts of COVID-19 on enteric disease response and staff capacity.

FoodCORE Web Resources:

FoodCORE Program Website

www.cdc.gov/foodcore/index.html

FoodCORE Success Stories and Highlights

www.cdc.gov/foodcore/successes.html

FoodCORE Model Practices

www.cdc.gov/foodcore/modelpractices.html

FoodCORE Metrics

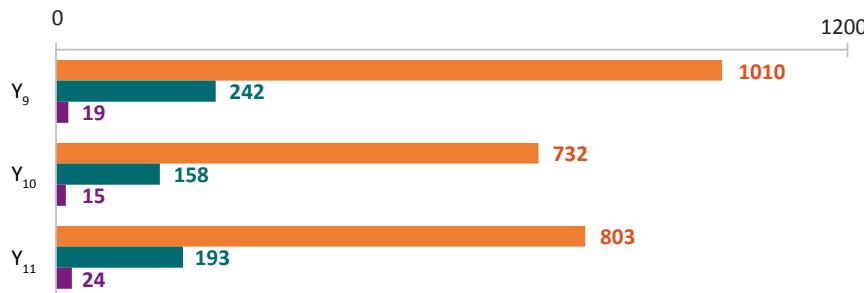
www.cdc.gov/foodcore/metrics/index.html



Centers for Disease Control and Prevention
National Center for Emerging and Zoonotic Infectious Diseases

Graphs for Selected Metrics

After a decrease from Year 9 to Year 10, the average number of *Salmonella*, *STEC*, and *Listeria* primary isolates/isolate-yielding specimens submitted to or recovered at public health labs increased from Year 10 to Year 11.

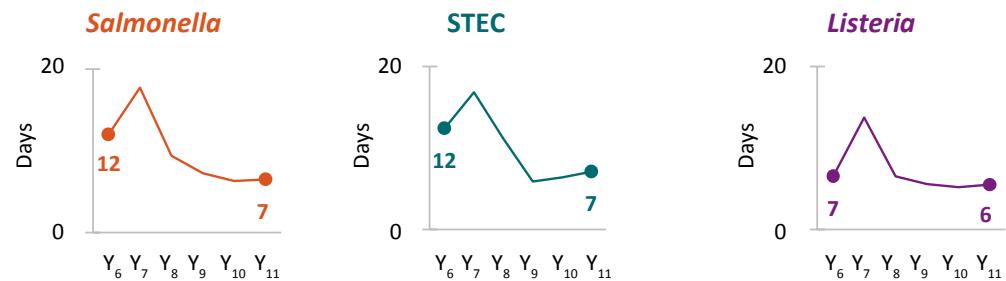


The average number of laboratory-confirmed cases reported to epidemiology staff increased from Year 10 to Year 11. In Year 10, each center reported an average of 825 SSL cases (679, 131, and 15 cases for *Salmonella*, *STEC*, and *Listeria*, respectively) compared to an average of 902 SSL cases (712, 169, and 21 cases for *Salmonella*, *STEC*, and *Listeria*, respectively) in Year 11.

In Year 11, it took centers **2 days to attempt an interview** and **3 days to complete an interview** for confirmed, probable, and suspected SSL cases. This turnaround time* (TAT) is comparable to that for Year 10.

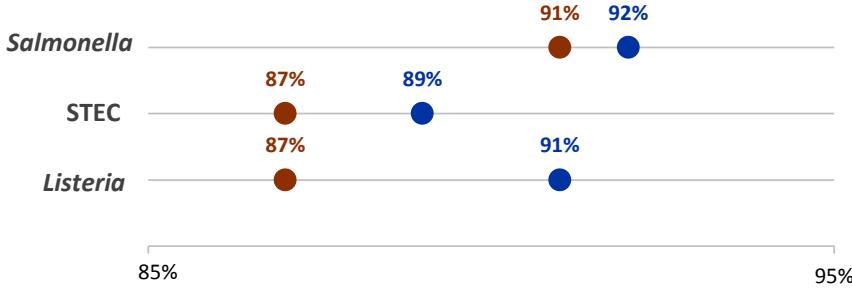
In Year 11, centers conducted **45 SSL** and **101 NOU[†]** environmental health assessments as part of investigations where there was a link to a common location of exposures. Environmental health assessments provide information needed to recommend effective short- and long-term interventions that stop ongoing foodborne outbreaks and prevent them in the future.

Since Year 6, centers have reduced the TAT from receipt or recovery at the whole genome sequencing (WGS) laboratory to the sequence being shared with the national database. TAT slightly increased in Year 11 as centers had limited staff capacity available for enteric sequencing.



In Year 11, centers maintained a high proportion of primary *Salmonella*, *STEC*, and *Listeria* isolates with WGS results: **97%**, **94%**, and **98%**, respectively.

From **Year 10** to **Year 11**, the average proportion of confirmed *Salmonella*, *STEC*, and *Listeria* cases reported to epidemiology staff with WGS information increased.



During the COVID-19 pandemic, centers had fewer epidemiology, laboratory, and environmental health staff available to investigate foodborne outbreaks and conduct routine surveillance. In 2021, centers were able to maintain most of their core activities, but the Year 11 metrics capture some of the ongoing impacts of COVID-19 on staff capacity and enteric disease response activities.

FoodCORE Reporting Periods:

Baseline (Y₀) = Oct 2010 – Mar 2011. Year 1 (Y₁) = Oct 2010 – Sept 2011. Year 2 (Y₂) = Oct 2011 – Dec 2012. Year 3 (Y₃) = Jan 2013 – Dec 2013. Year 4 (Y₄) = Jan 2014 – Dec 2014. Year 5 (Y₅) = Jan 2015 – Dec 2015. Year 6 (Y₆) = Jan 2016 – Dec 2016. Year 7 (Y₇) = Jan 2017 – Dec 2017. Year 8 (Y₈) = Jan 2018 – Dec 2018. Year 9 (Y₉) = Jan 2019 – Dec 2019.

Year 10 (Y₁₀) = Jan 2020 – Dec 2020. Year 11 (Y₁₁) = Jan 2021 – Dec 2021.

*Time in median days.

[†]Only foodborne and point-source investigations are reported for NOU metrics.