



CDC Update

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Water, Food, and Environmental Health Services Branch
Division of Environmental Health Science and Practice



Centers providing updates

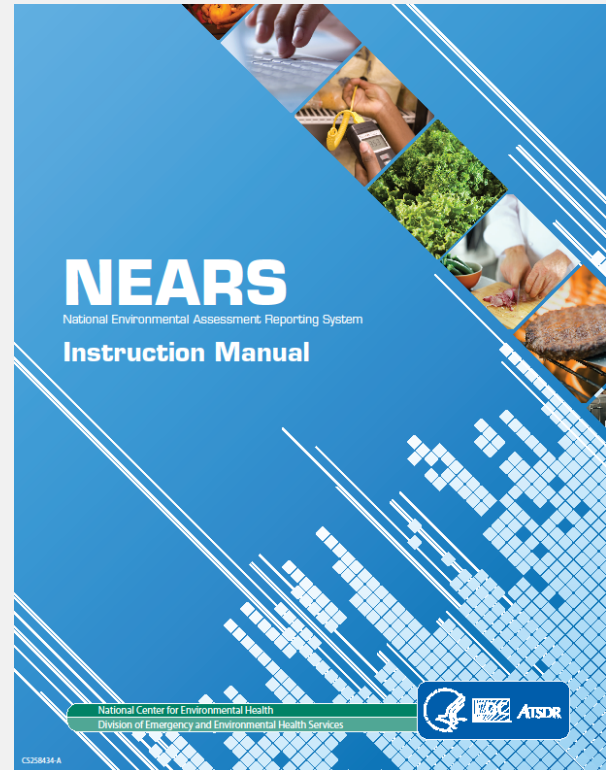
- **National Center for Environmental Health (NCEH)**
- **National Center for Emerging and Zoonotic Infectious Diseases (NCEZID)**
- **National Center for Immunization and Respiratory Diseases (NCIRD)**

NATIONAL CENTER FOR ENVIRONMENTAL HEALTH

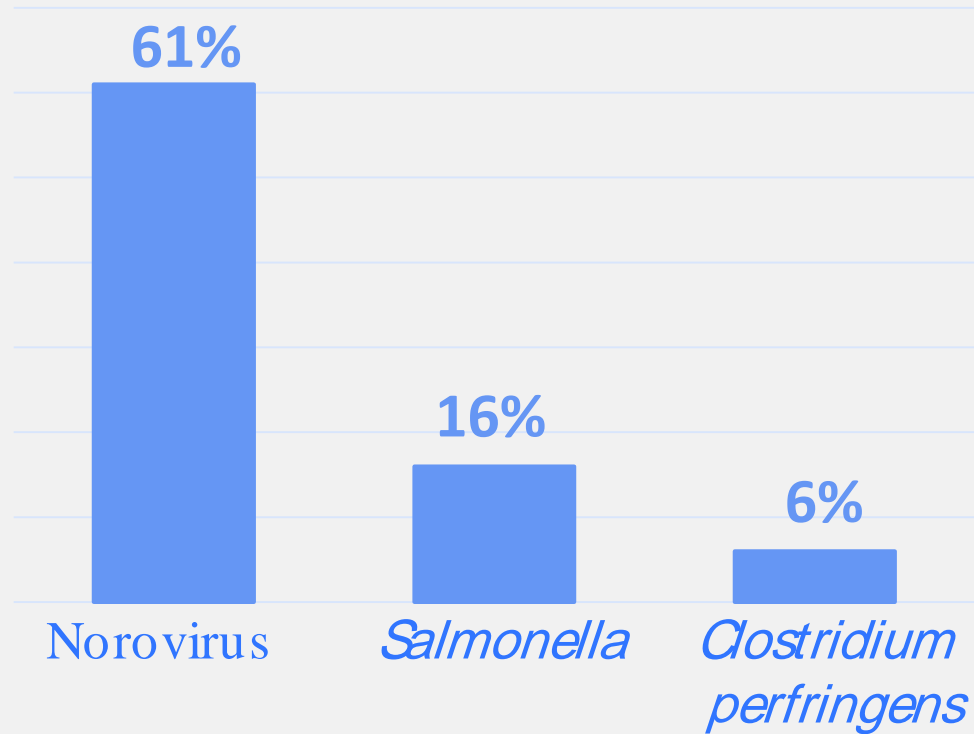
Division of Environmental Health Science and Practice

National Environmental Assessment Reporting System (NEARS)

Reporting system for data from the environmental health component of state and local foodborne outbreak investigations



NEARS outbreaks



Contributing factors to NEARS outbreaks

Bare-hand contact by infectious food handler 28%

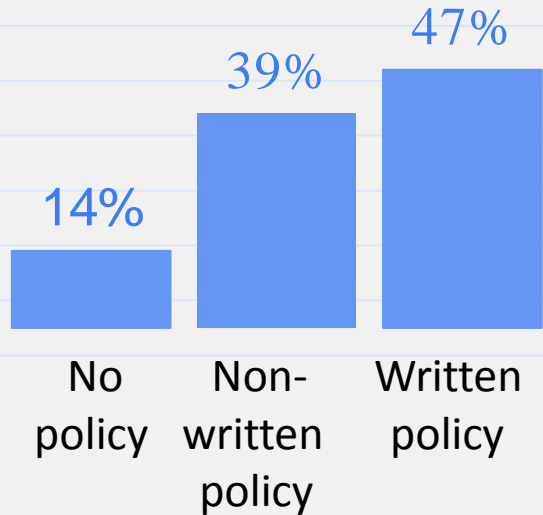
Other mode of contamination by infectious food handler 23%

Glove-hand contact by infectious food handler 16%

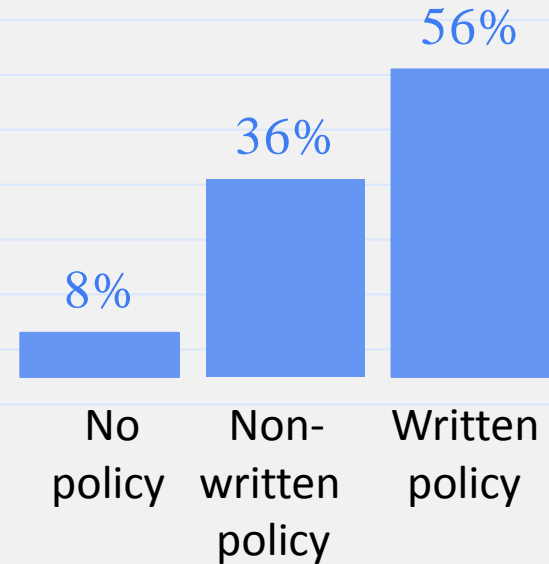
Cross-contamination of ingredients 11%

Insufficient time or temperature during cooking 11%

Policy to restrict or exclude ill workers



Policy for workers to tell managers when they are ill



Recap

NEARS collects data from the environmental health component of outbreak investigations to:

- ✓ Emphasize environmental causes of outbreaks
- ✓ Target prevention efforts

These data can be analyzed to identify and understand:

- Establishment types vulnerable to outbreaks
- Contributing factors to outbreaks
- Gaps in establishment policies and practices
- Gaps in investigation practices

More info

NEARS

- General info: www.cdc.gov/nceh/nears/index.htm
- Recent pub: www.cdc.gov/nceh/ehs/nears/publications.htm

CDC's Environmental Assessment Training

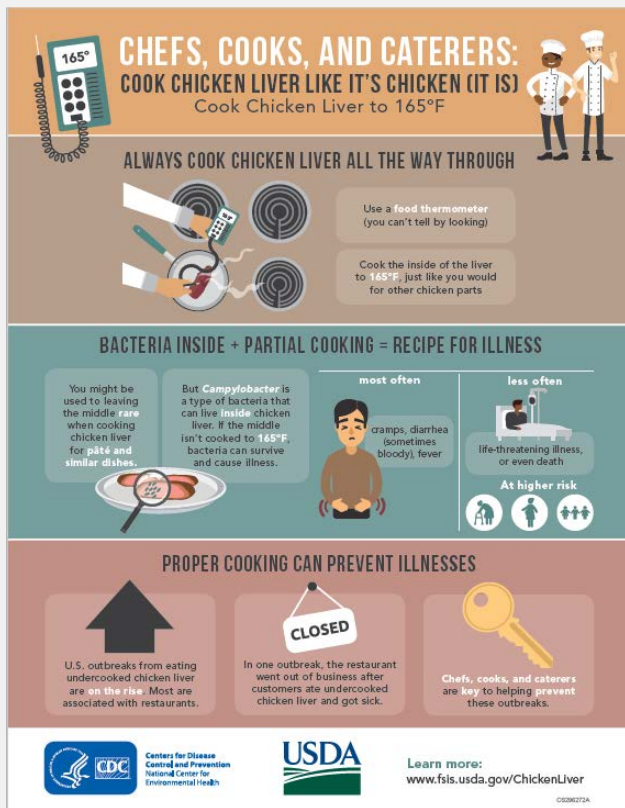
- <https://www.cdc.gov/nceh/ehs/elearn/eats/index.html>

NCEH resources

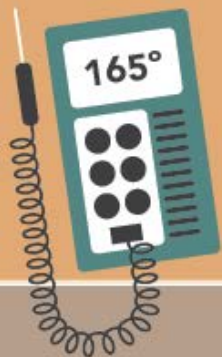
- All resources available at
- www.cdc.gov/nceh/ehs



New infographic



<https://www.cdc.gov/nceh/ehs/publications/chicken-liver-infographic.html>



CHEFS, COOKS, AND CATERERS: COOK CHICKEN LIVER LIKE IT'S CHICKEN (IT IS)

Cook Chicken Liver to 165°F



ALWAYS COOK CHICKEN LIVER ALL THE WAY THROUGH



Use a **food thermometer**
(you can't tell by looking)

Cook the inside of the liver
to **165°F**, just like you would
for other chicken parts

Interagency collaboration with FDA and USDA-FSIS

As part of CDC's on-going cross-agency work with USDA-FSIS and FDA, the agency is a part of an Interagency Retail Lm Work Group. Current work within this group is described below.

Enhancing Federal Outreach to Control *L. monocytogenes* in Delicatessens: Stakeholder Participation in Focus Groups. The Food Safety and Inspection Service (FSIS), in collaboration with the Food and Drug Administration (FDA) and Centers for Disease Control (CDC), are seeking volunteers to participate in a 90-minute on-line focus group regarding their information needs on retail practices to support the control of *Listeria monocytogenes* in delicatessens, how they currently get or would prefer to get this type of information, and to provide input on FSIS's current outreach materials (e.g., brochure – "[Guidance for Controlling Listeria monocytogenes \(Lm\) in Retail Delicatessens](#)", [Lm Deli Self-Assessment Tool](#), etc.). FSIS, FDA and CDC are working together to gather this input from stakeholders as recommended by the National Advisory Committee for Meat and Poultry Inspection to support the development of educational outreach material on the control of *Listeria monocytogenes* in retail delis that is clear, understandable, practical, and available to all audiences. The federal partners are working closely with several organizations (i.e., AFDO, ALP, ASTHO, FMI, NACCHO, NASDA, NEHA and NGA) to identify potential participants for these focus groups. Participants needed include state health and agriculture officials and local health officials with responsibilities for retail food safety, and food safety representatives for independent grocers and supermarket chains.

Please let us know if you or colleagues are interested in participating in these focus groups by April 17, 2019 to Janell.kause@fsis.usda.gov.

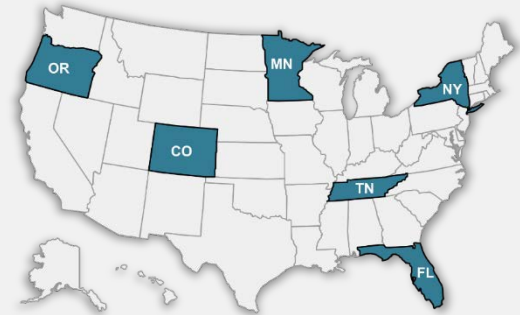
For more information, please see the following federal register notice:

<https://www.federalregister.gov/documents/2018/11/20/2018-25265/notice-of-request-for-a-new-information-collection-stakeholder-input-on-federal-outreach-to-control>

NATIONAL CENTER FOR EMERGING AND ZOO NOTIC INFECTIOUS DISEASES

Integrated Food Safety Centers of Excellence (CoEs)

The 6 centers are public health departments with at least one academic partner



Strengthen & Improve surveillance and outbreak investigations



Evaluate & Analyze the timeliness and effectiveness of surveillance and outbreak response



Train & Educate students and public health personnel



Disseminate & Communicate tools and resources

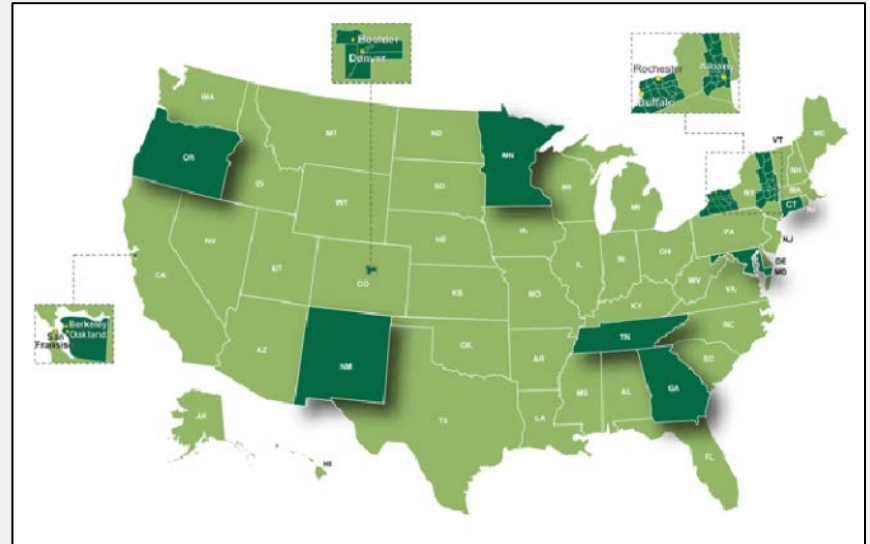
CoEs: Recent products

- Toolkit of interviewer training resources for public health
 - Provides step-by-step instructions on how to prepare for and conduct interviews
- Fifth video in the Foodborne Illness Introductory Video Training Series
 - “Foodborne Outbreak Investigation: What does a laboratorian do?”
- Regional live-learning series focused on the application of WGS to surveillance and outbreak investigation
 - Fosters open discussion by epidemiologists, laboratorians, and environmental health staff about their experiences and challenges using WGS data

**Over 150 free products
available at
CoEFoodSafetyTools.org**

FoodNet: Foodborne Diseases Active Surveillance Network

- Conducts population-based, active surveillance in 10 U.S. sites for 9 pathogens
- Collects reports of culture-confirmed and culture-independent test (CIDT)-positive infections



FoodNet: Increasing use of culture-independent diagnostic tests (CIDTs), 2017

- Compared with 2014–2016, 96% increase in infections diagnosed by CIDT
- Reflex culture attempted on 71% of CIDT-positive specimens; positivity rates ranged from 38% for *Vibrio* to 90% for *Salmonella*
- Average percentage of clinical laboratories using CIDTs increased from 11% in 2012 to 36% in 2017
- Recent increases driven by adoption of DNA-based syndromic panels

FDOSS/NORS: Foodborne Disease Outbreak Surveillance System/National Outbreak Reporting System

- **Foodborne outbreak data**
 - patient demographics
 - pathogen
 - food vehicle
 - outbreak setting
 - contributing factors
- **Outbreak summaries for 1998–2017 available on the NORS Dashboard**

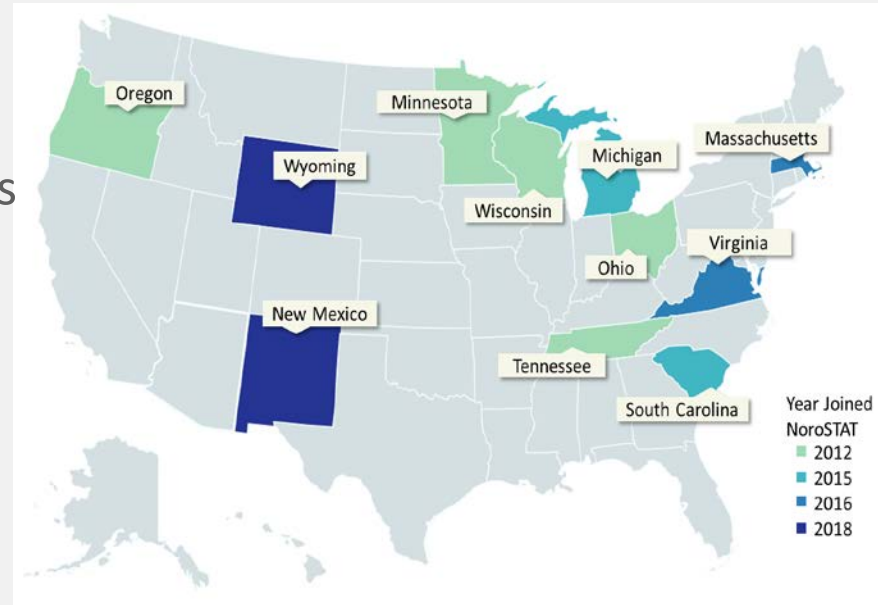




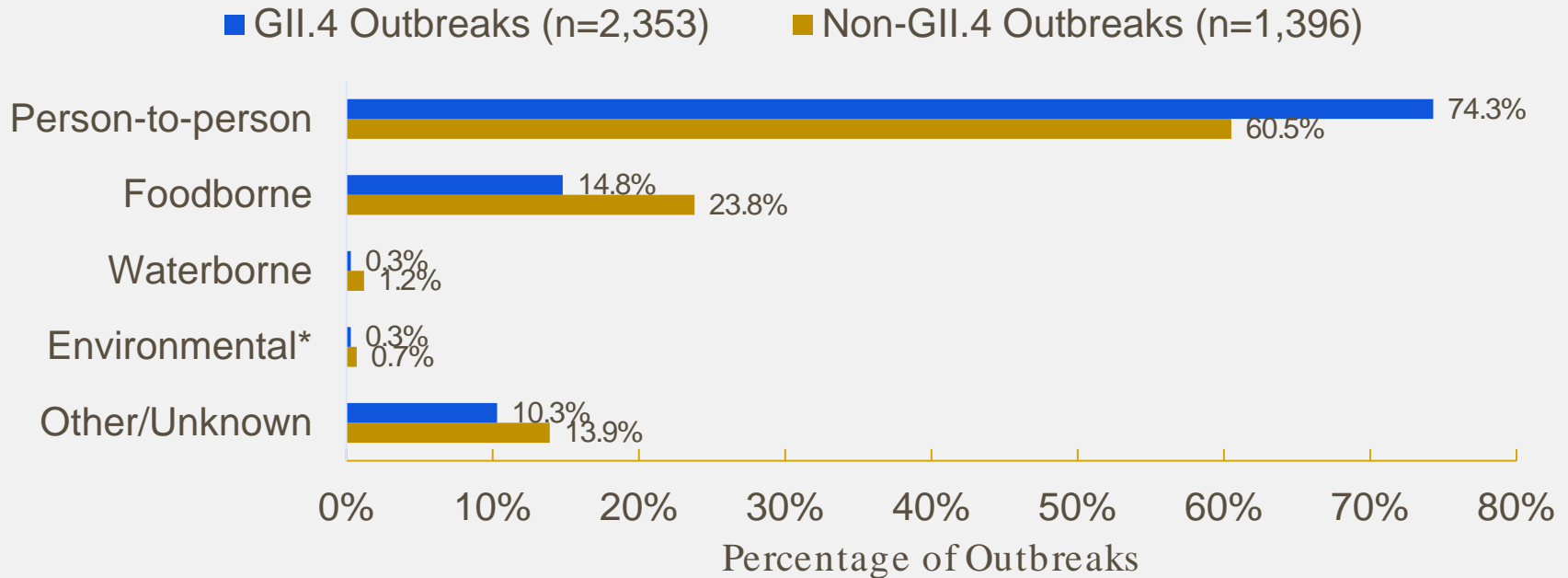
NATIONAL CENTER FOR IMMUNIZATION AND RESPIRATORY DISEASES

Norovirus Sentinel Testing and Tracking (NoroSTAT)

- Near-real time reporting of norovirus outbreaks by network of sentinel states
 - Implemented August 2012 in 5 states
 - Expanded to 7 in 2015, 9 in 2016, and 11 in 2018
 - Rapidly assess the impact of emergent strains
 - Improved timeliness, completeness, and linking of outbreak reports in NORS and CaliciNet

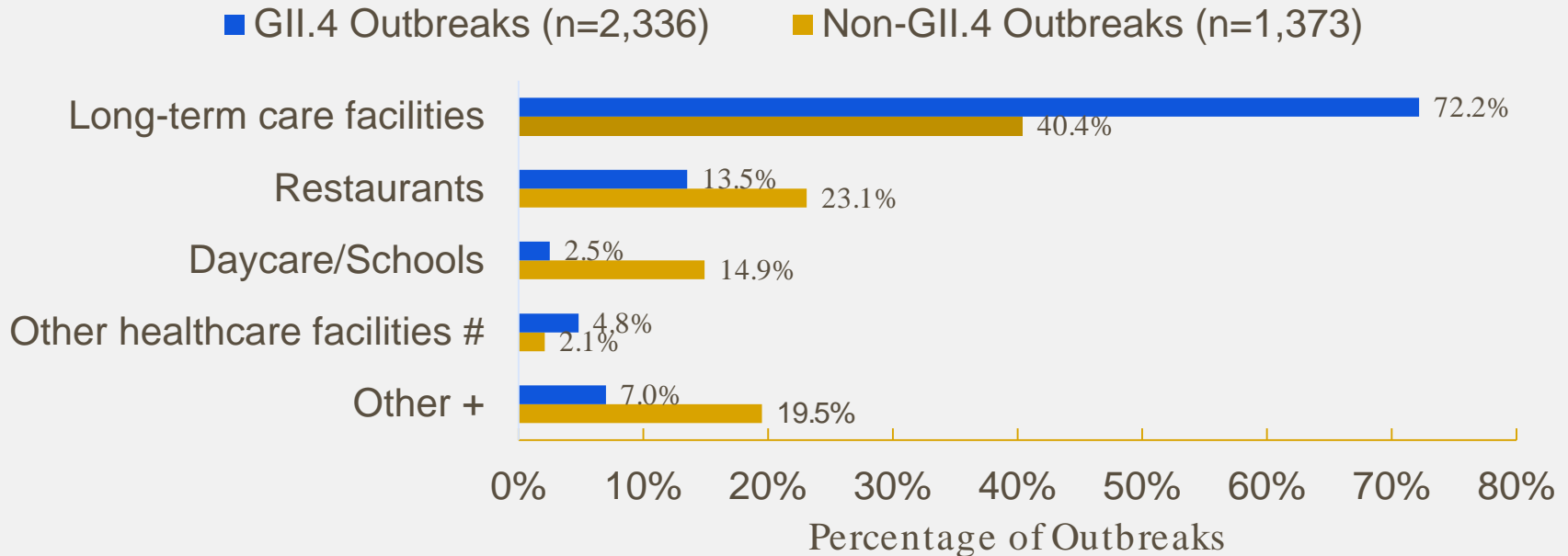


Transmission Mode of Norovirus Outbreaks by Genotype, NORS and CaliciNet, 2009–2016



* Chi-square $p=0.18$ for difference between GII.4 and non-GII.4 outbreaks with environmental transmission; for all other transmission modes displayed, Chi-square $p < 0.001$

Setting of Norovirus Outbreaks by Genotype, NORS and CaliciNet, 2009–2016

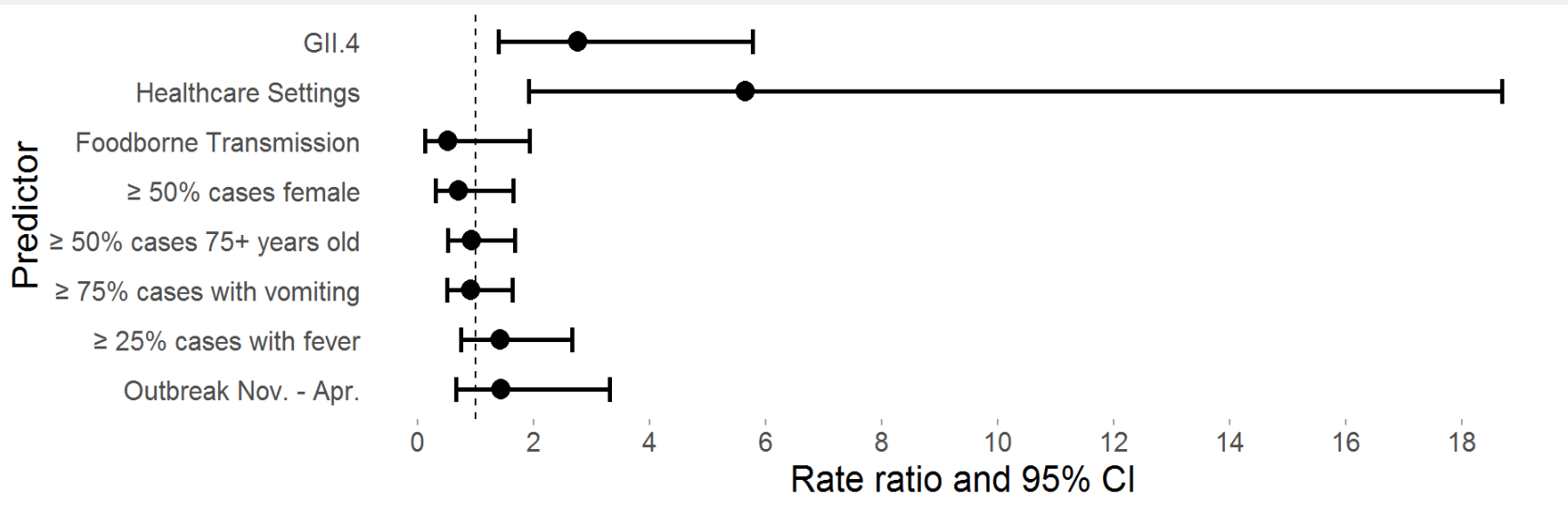


For all settings displayed, difference between GII.4 and non.GII.4 outbreaks Chi-square $p < 0.001$

Other healthcare settings include: hospital, dialysis center, and “other healthcare facility”

+ Other settings include: private residence, prison/jail, office, hotel/motel, religious facility, grocery store, ship/boat, “other”

Predictors of Mortality Rate from Multivariable Analysis of Linked Norovirus Outbreaks, NORS and CaliciNet, 2009–2016



Thank you

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For more information, contact NCEH
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.cdc.gov
Follow us on Twitter [@CDCEnvironment](https://twitter.com/CDCEnvironment)

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

