

Beyond Attribution: State-by-State Outbreak Reporting

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CENTER FOR
Science IN THE
Public Interest

CSPI: Nearly Four Decades of Consumer Advocacy

- Bi-national consumer advocacy organization founded in 1971 by Michael Jacobson, Ph.D.
 - Focuses on nutrition and health, and food safety
 - Publishes award-winning *Nutrition Action Healthletter*
 - Represents 900,000 subscriber/members in the United States and Canada



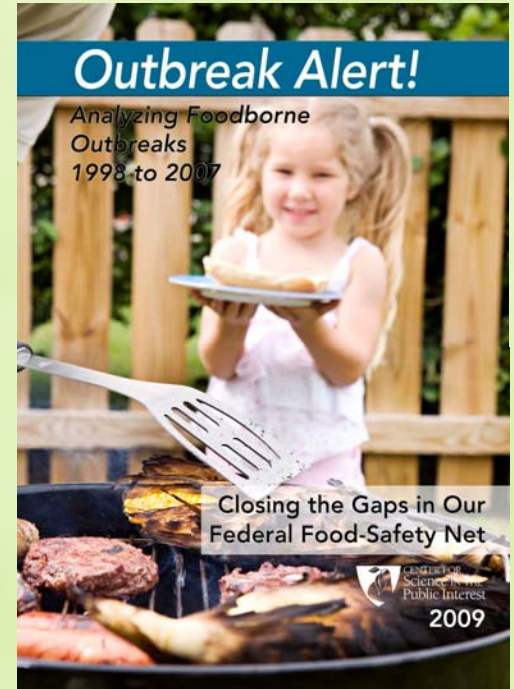
Information Needs

- What do outbreak investigations give us
- Drilling down into the data
- Future needs



Unique Data

- CSPI database contains over 6,000 outbreaks, with both known food source and etiology, which occurred in the U.S. between 1990-2007
- Although the outbreak data was originally compiled from several different sources, for the last ten years, 98% has come from CDC.
- The database is updated and reports are published annually.



Online Searchable Database

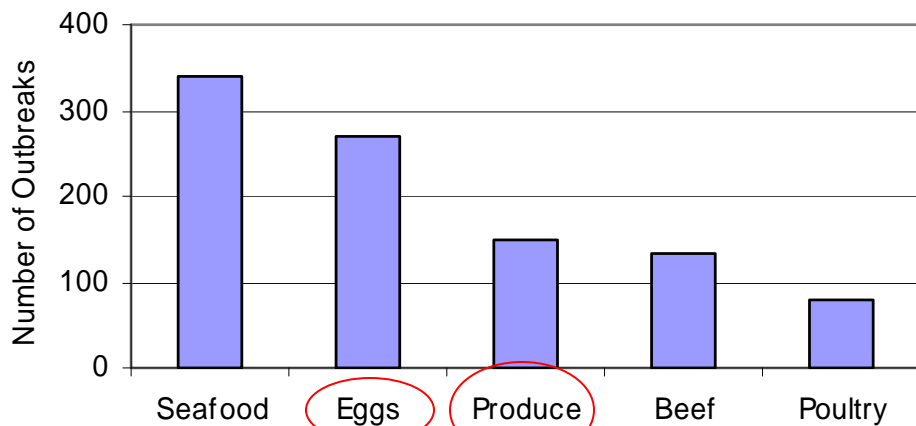
The screenshot shows a web browser window titled "Outbreak Alert! Database - Windows Internet Explorer". The address bar displays the URL "http://www.cspinet.org/foodsafety/outbreak/pathogen.php". The page features the logo of the Center for Science in the Public Interest and the text "Outbreak Alert! DATABASE". A search bar is present with the prompt "Search all Outbreaks by Food, Pathogen or State:". Below this, there are three dropdown menus for "Food (Definitions)", "Pathogen (Definitions)", and "State". The "Food" dropdown is open, showing a list of categories including Beef, Beverages, Both, Breads and Bakery, Dairy, Eggs, Game, Luncheon/Other Meats, Multi-ingredient, Pork, Poultry, Produce (with sub-items Fruits and Vegetables), and Seafood/Produce Dishes. A background image of various fruits and vegetables is visible. At the bottom of the page, there is a small text prompt: "If you have out the Outbreak Alert! Database, please email foodsafety@cspinet.org".

<http://www.cspinet.org/foodsafety>

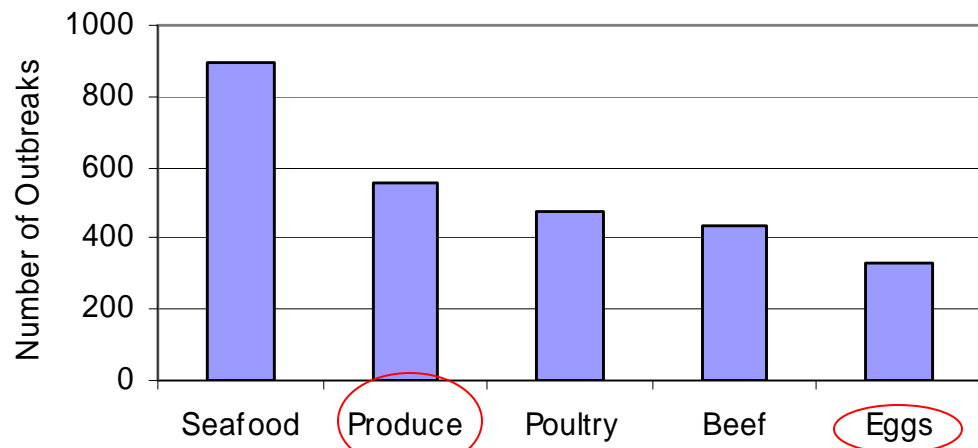


Top Single-Food Vehicles of Outbreaks

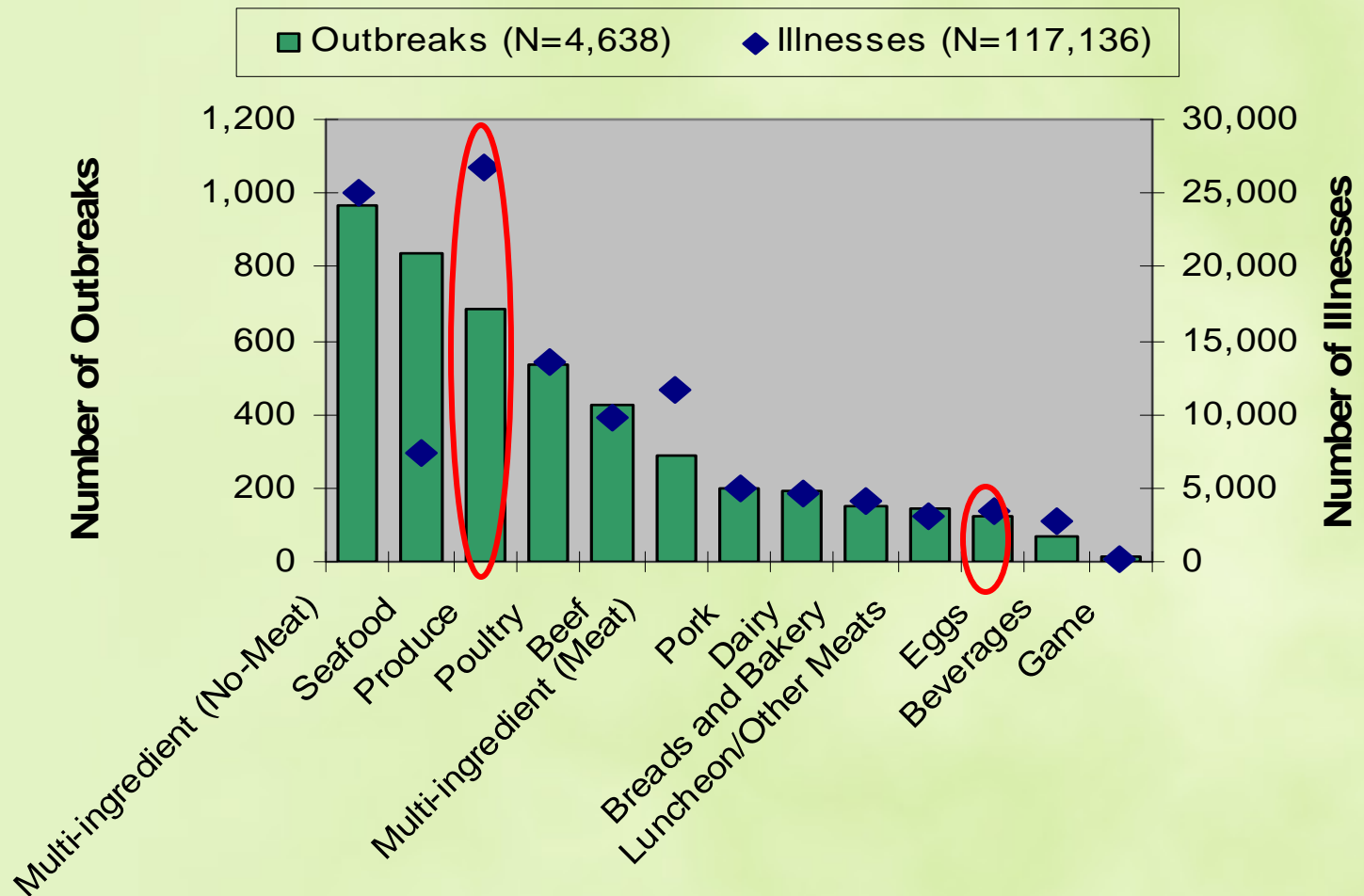
Top Five Single-Food Vehicles of Outbreaks, 1990-2001



Top-Five Single-Food Vehicles of Outbreaks, 1990-2003



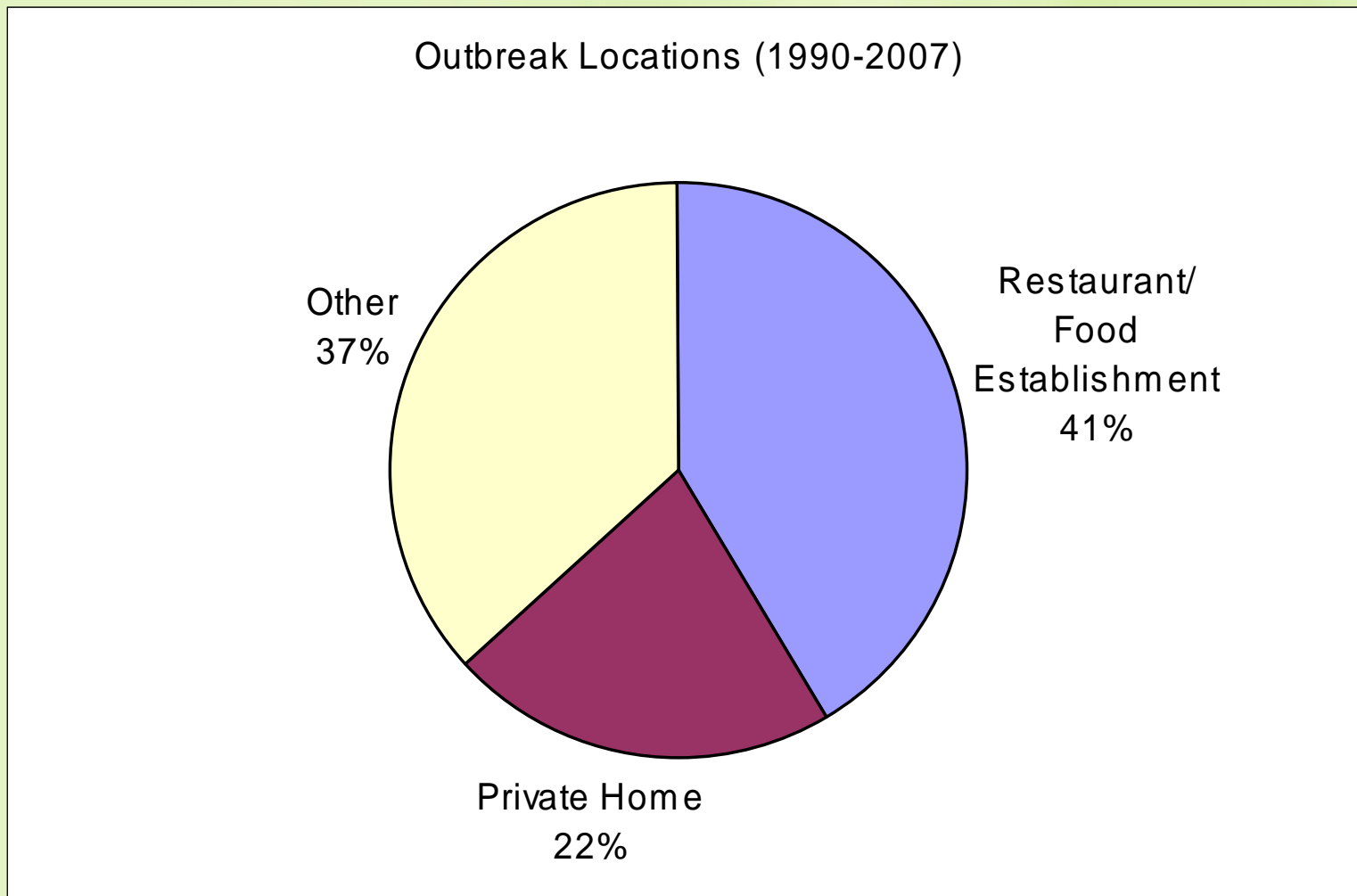
Outbreaks and Illnesses in Food (1998-2007)



Source: *Outbreak Alert!* Center for Science in the Public Interest, 2009



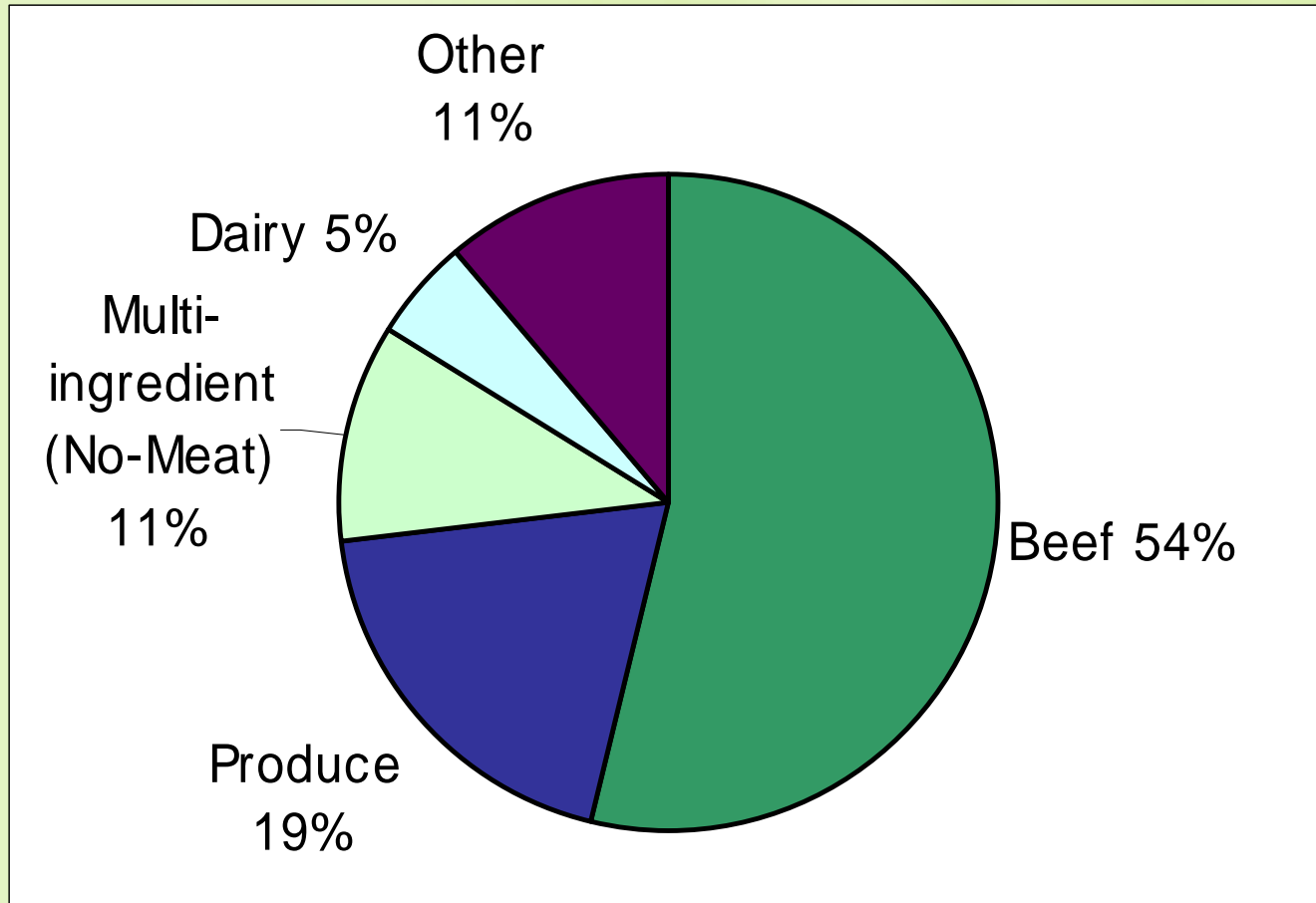
Locations of Foodborne Illness Outbreaks (1990-2007)



Source: *Outbreak Alert!* Center for Science in the Public Interest, 2009



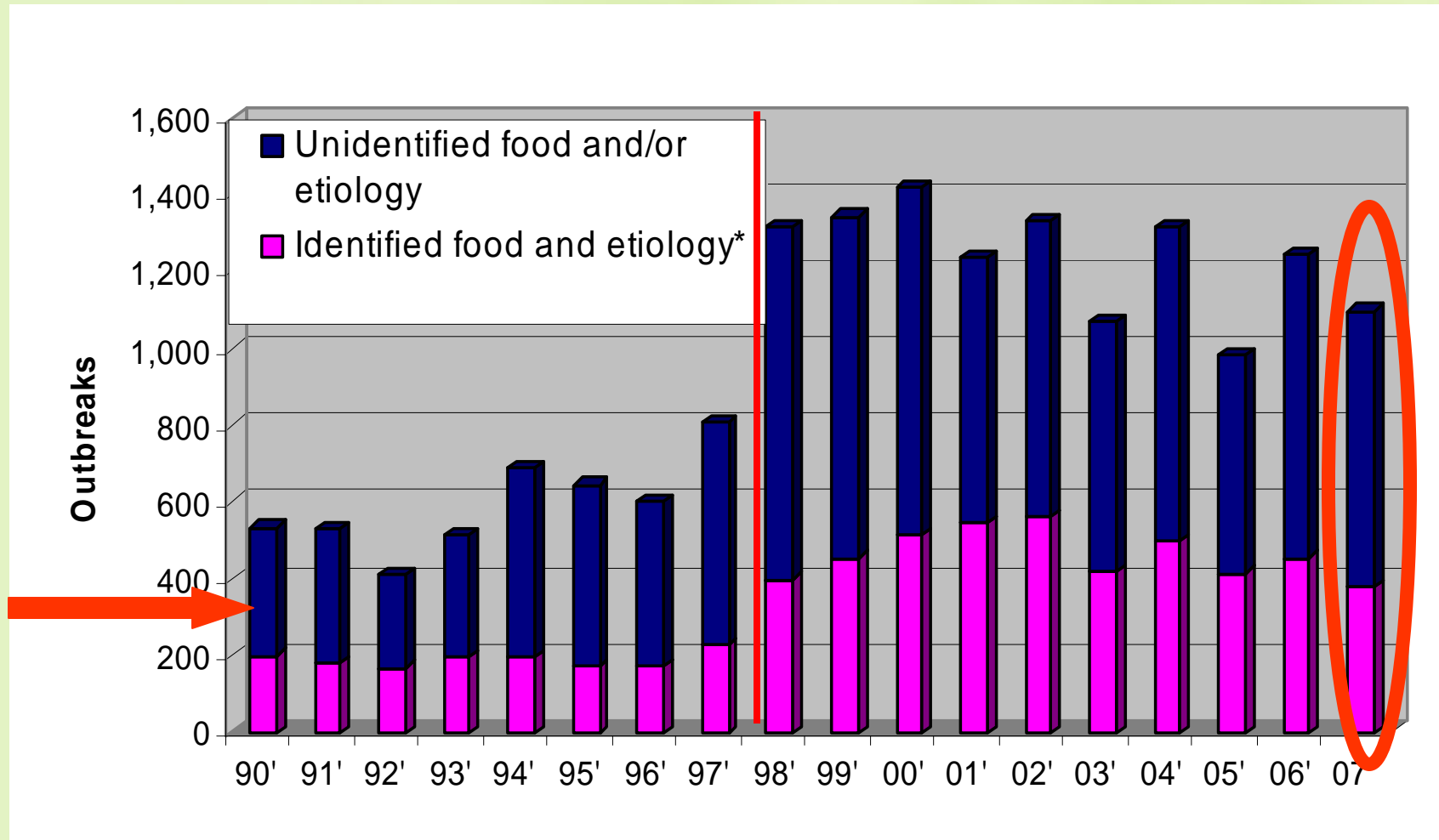
E. Coli O157:H7 in Foods (1998-2007)



Source: *Outbreak Alert!* Center for Science in the Public Interest, 2009



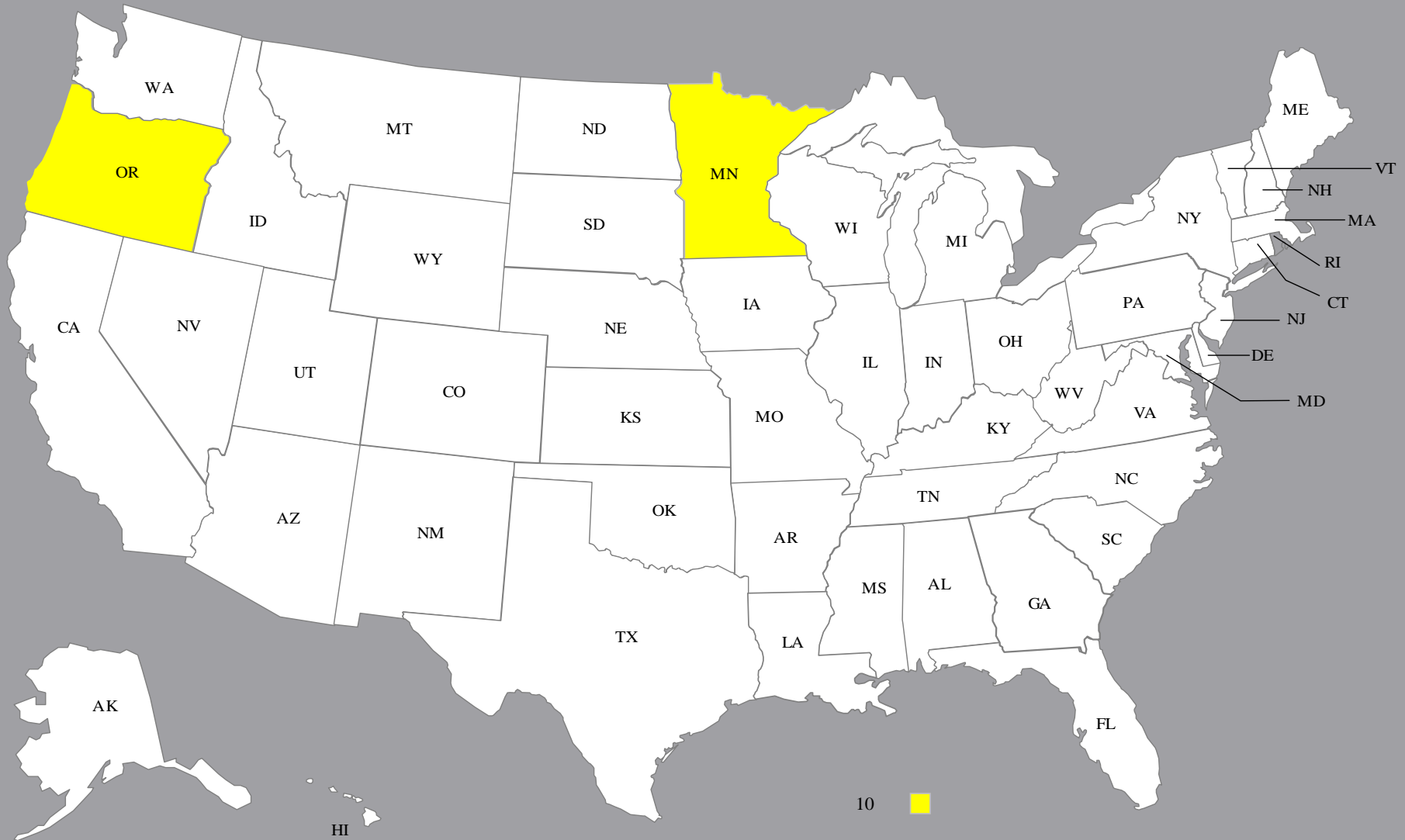
Outbreaks Reported to CDC: Most Have an Unknown Food or Pathogen



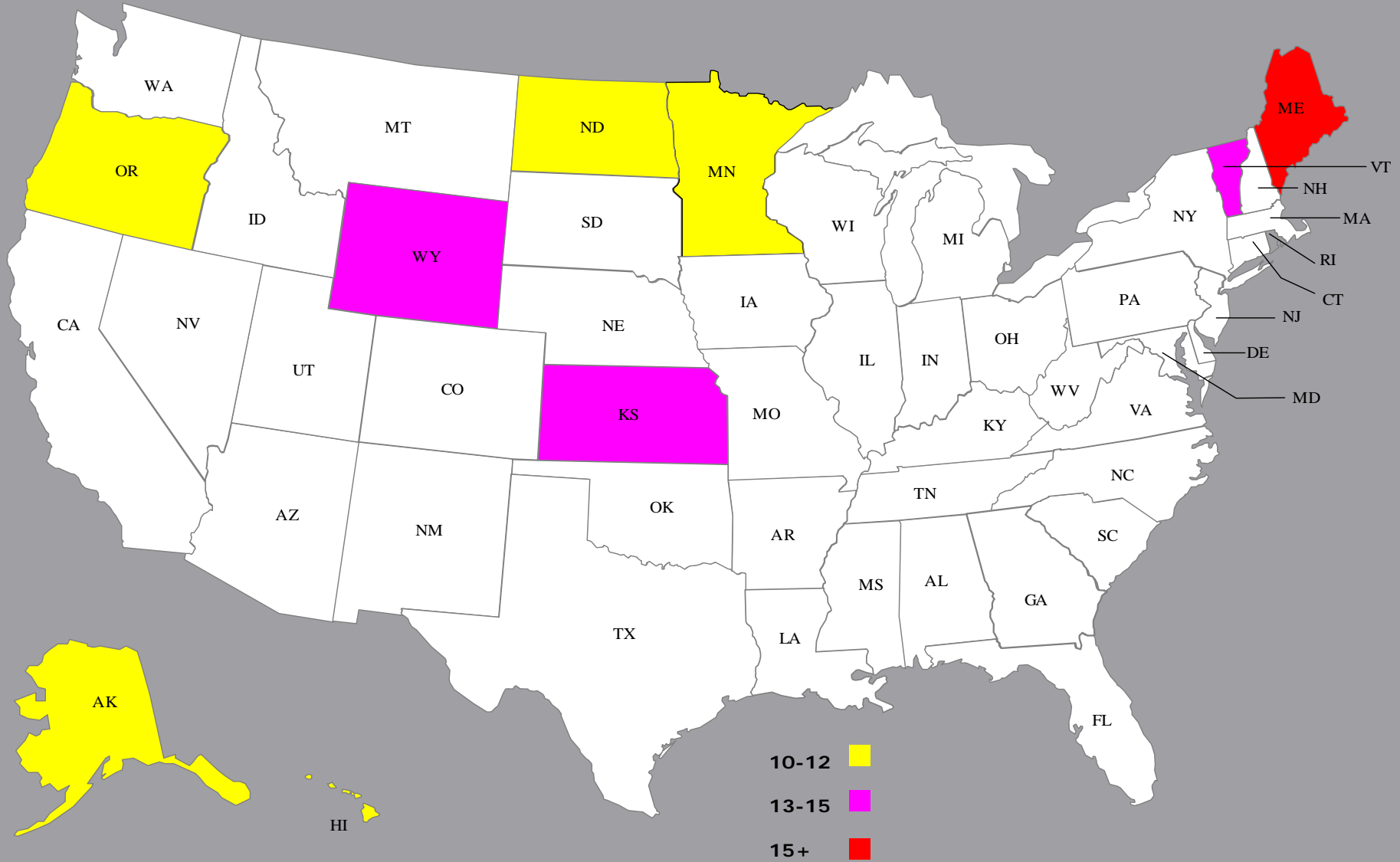
Source: The Center for Science in the Public Interest and CDC



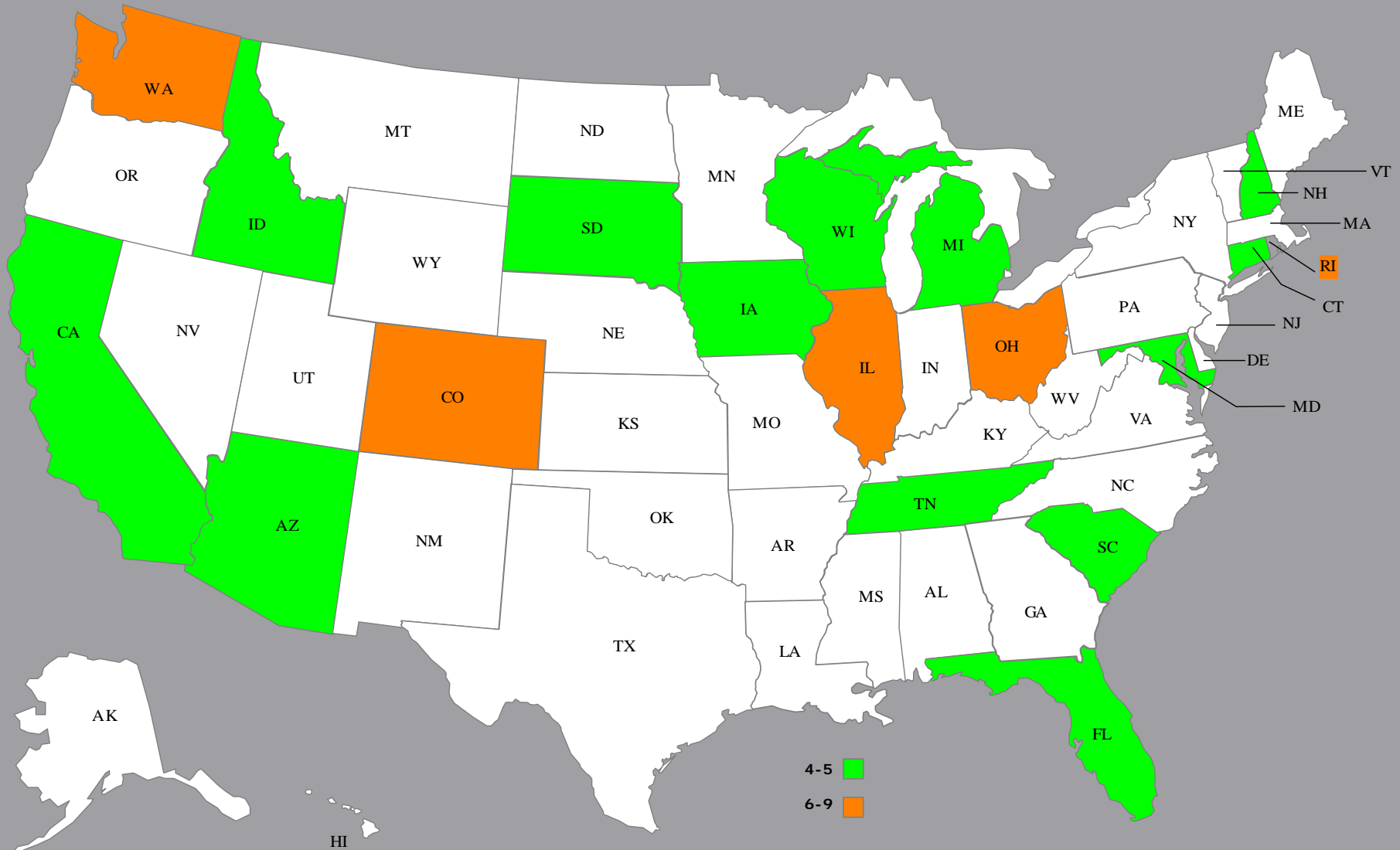
Reported Outbreaks per Million Population (2007)



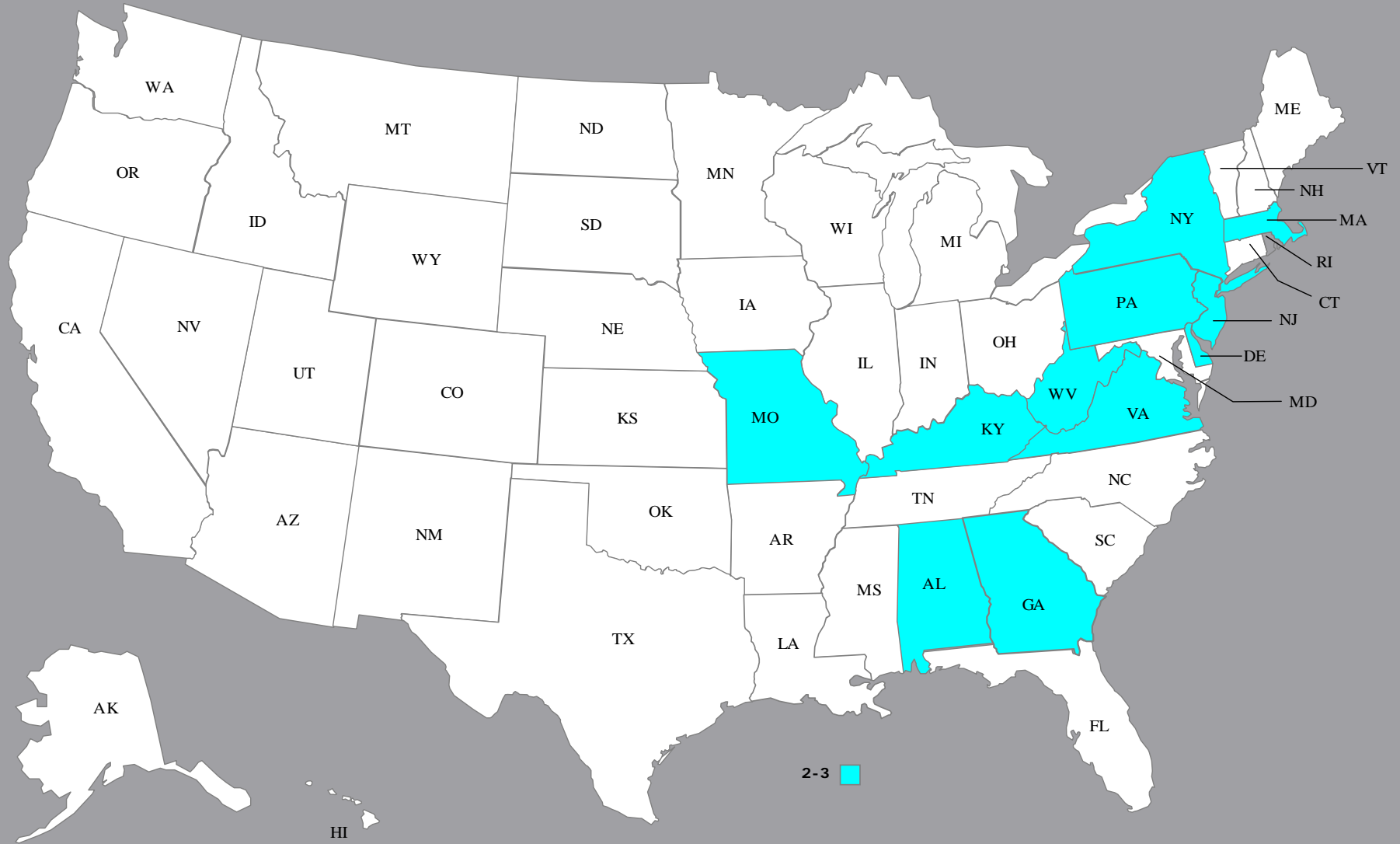
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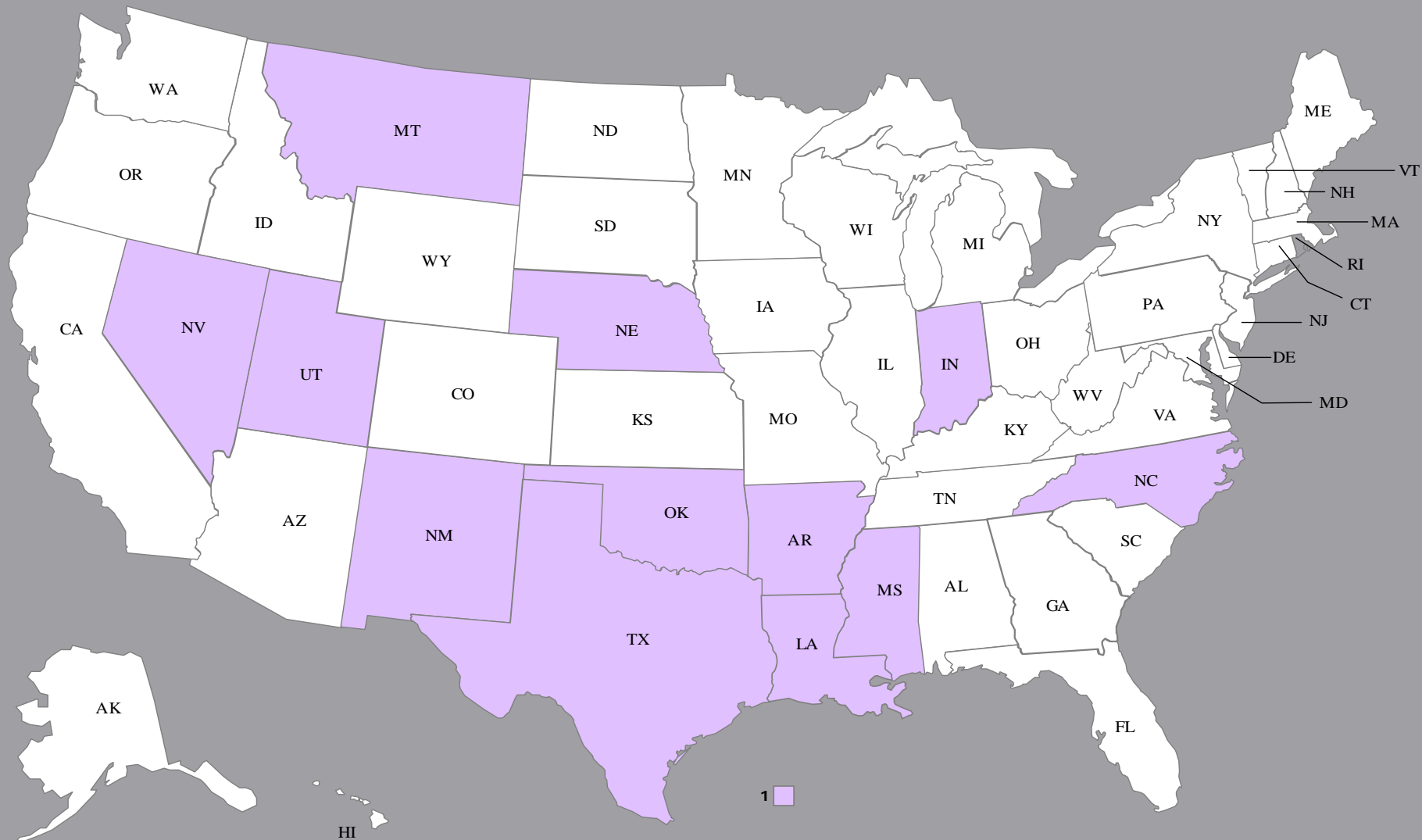
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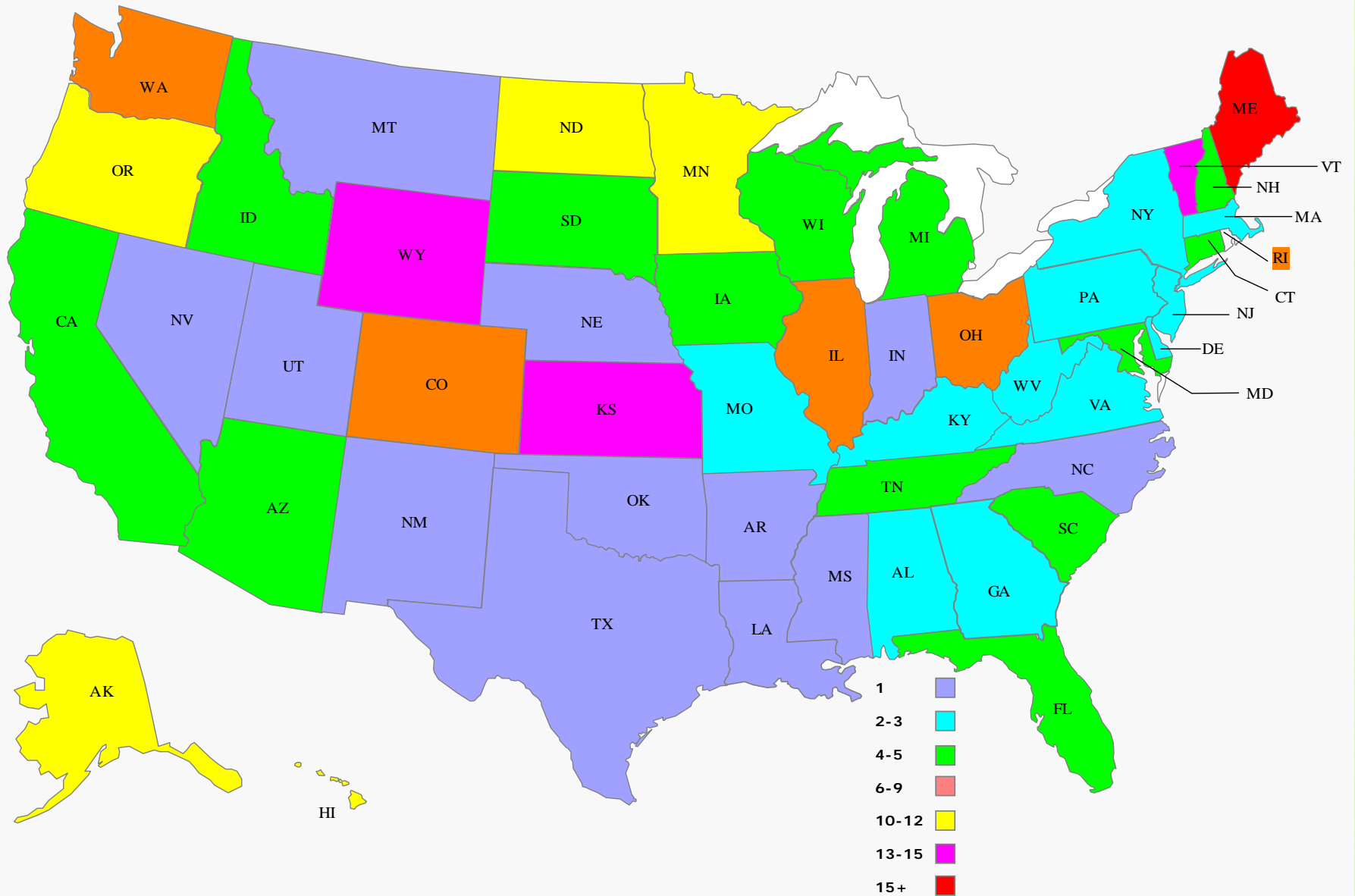
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Population and Geography Are Slight Indicators for Reporting

- Population

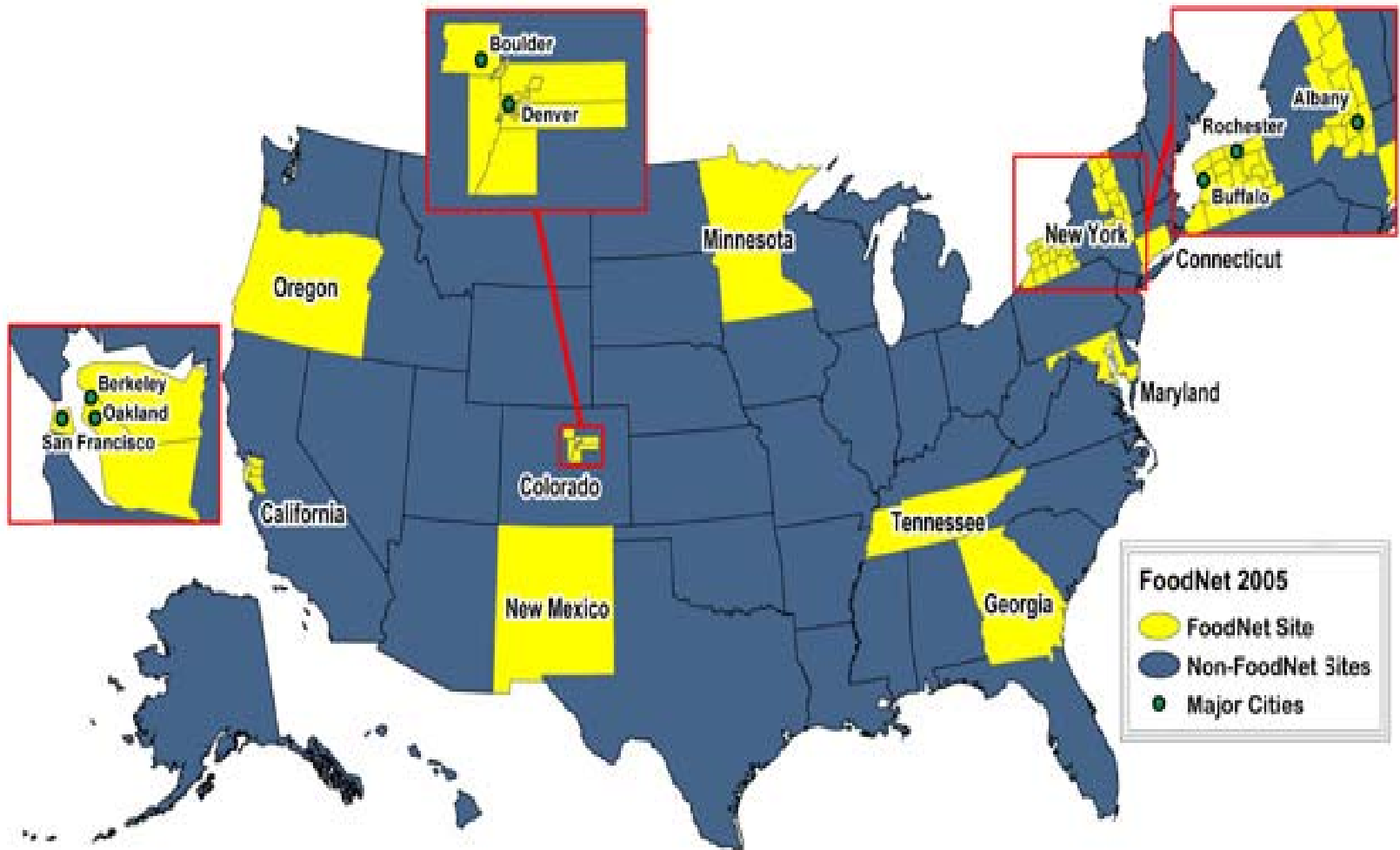
- Largest states (18 to 36 million) ranged from 5 to 1 outbreaks per million
- Next group (9 to 13 million) ranged from 8 to 1 outbreaks per million
- States with less than one million ranged from 15 to 1 outbreaks per million

- Geography

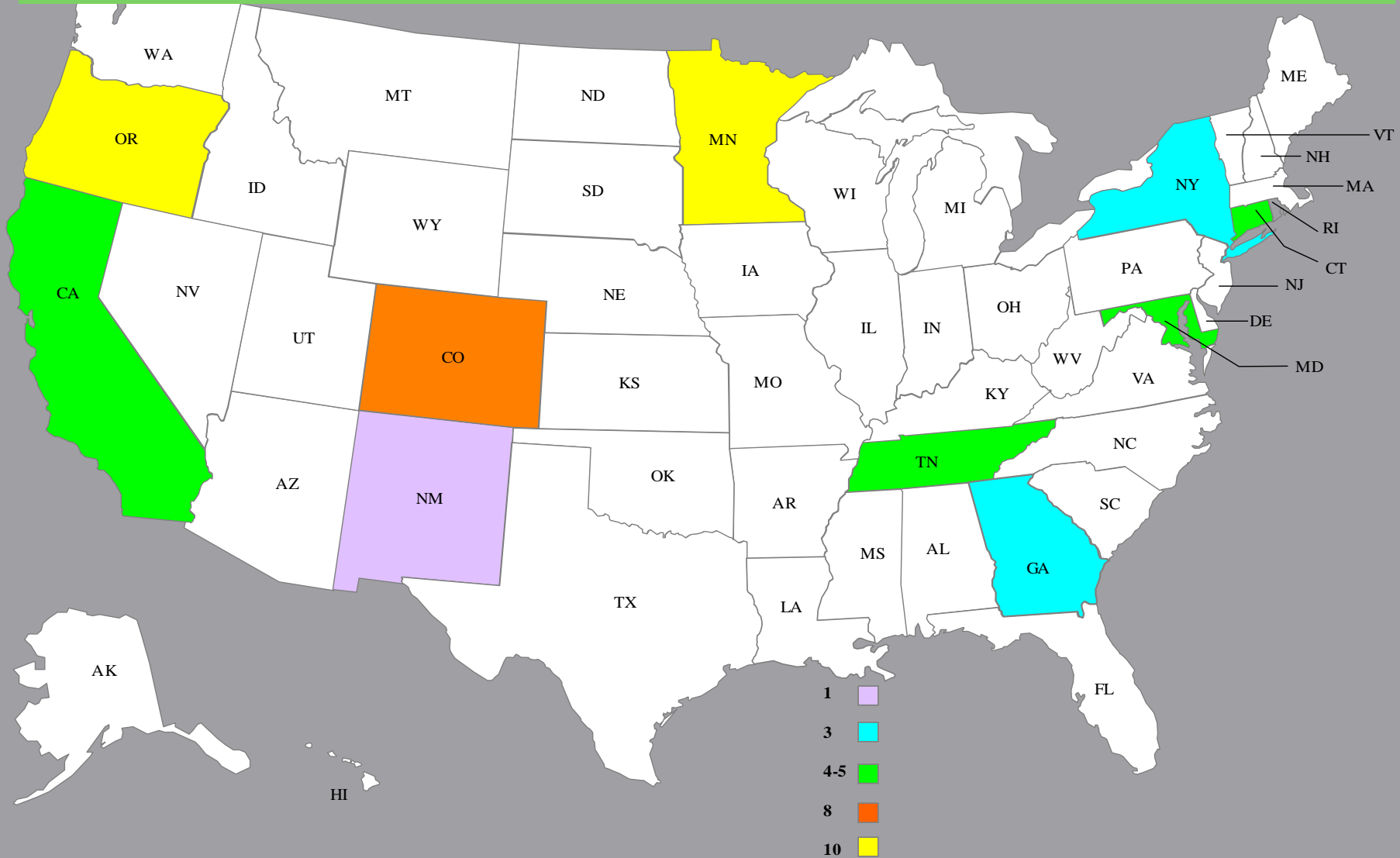
- Very low reporting states (1-3 outbreaks per million) were found in all regions
- Northern states had better reporting than Southern states



CDC Food-Net States



Reported Outbreaks per Million Population in CDC Food-Net States (2007)



Food Net

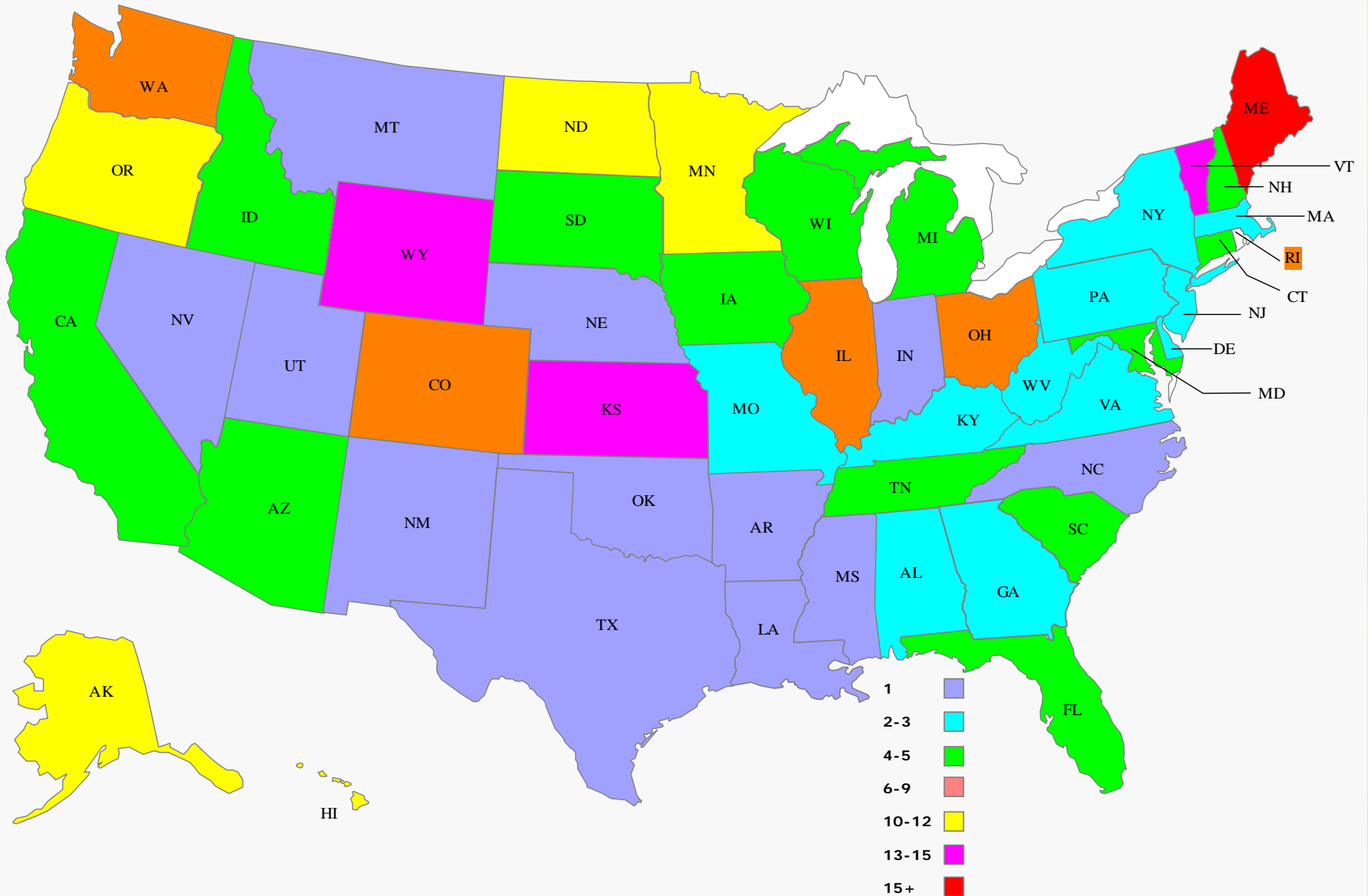
- Participation in Food Net not a good indicator of outbreak reporting
 - Food Net states ranged from 10 to 1 outbreaks per million

TAKE HOME MESSAGE

There is lots of room for improvement!



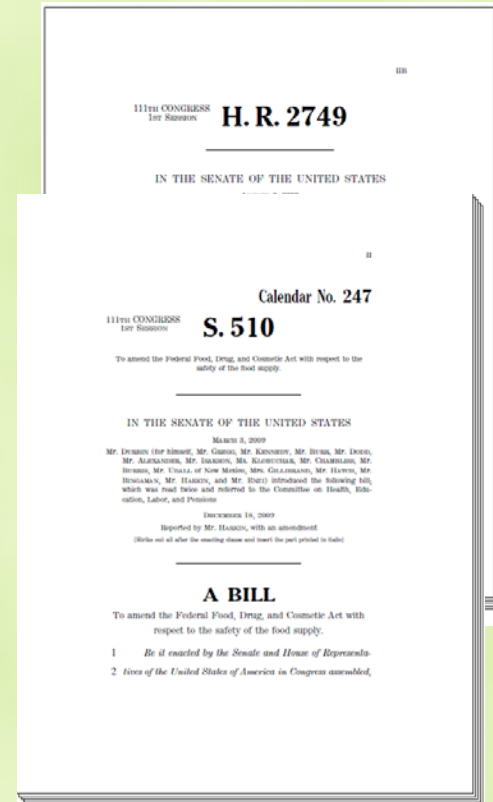
Reported Outbreaks per Million Population (2007)



Improving Surveillance

Reform legislation requires FDA to:

- Coordinate federal, state and local surveillance systems
- Develop improved epidemiological tools to improve outbreak attribution
- Engage states to improve foodborne illness outbreak and response, and to accelerate investigations



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