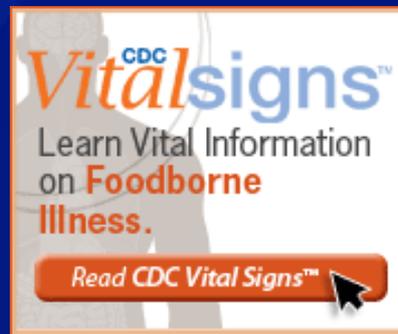


# Welcome!

Office for State, Tribal, Local and Territorial Support  
presents...



## CDC *Vital Signs* Foodborne Illness: Common, Costly... Preventable

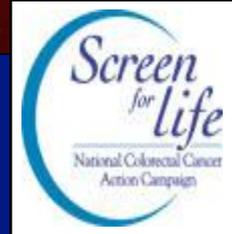
June 14, 2011  
2:00pm – 3:00pm EST



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

# Agenda

- 2:00 pm**                    **Welcome & Introductions**  
Dr. Judy Monroe, Deputy Director CDC , OSTLTS Director, CDC
- 2:02 pm**                    **Speaker Introductions**  
Kimberly Wilson  
Knowledge Management Branch, OSTLTS, CDC
- 2:04 pm**                    ***Vital Signs* Overview**  
Dana Pitts, MPH  
Associate Director for Communications, DFWED, NCEZID, CDC  
Olga Henao, PhD  
Team Lead, Foodborne Diseases Active Surveillance Network,  
DFWED, NCEZID, CDC
- 2:10 pm**                    **Presentations**  
**Sarah L. Lathrop, DVM, PhD**  
Associate Professor of Pathology, University of New Mexico  
**Timothy Jones, MD**  
State Epidemiology, Tennessee Department of Health
- 2:30 pm**                    **Q&A and Discussion**  
Kimberly Wilson
- 2:55 pm**                    **Wrap – up**
- 3:00 pm**                    **End of call**



**CDC Vital signs™ Teleconference**  
**to support STLT efforts and build momentum around the monthly release of CDC *Vital Signs***



# CDC Vital Signs: Focus on Foodborne Illness

**Dana Pitts, MPH**

*Associate Director of Communications*  
Division of Foodborne, Waterborne,  
and Environmental Diseases (DFWED)

**Olga L. Henao, PhD**

*Team Lead*  
Foodborne Diseases Active  
Surveillance Network (FoodNet)



Division of Foodborne, Waterborne, and Environmental Diseases (DFWED)

National Center for Emerging and Zoonotic Infectious Diseases (NCEZID)

# Foodborne illness in the United States

**Each year, 1 out of 6 Americans gets sick from and 3,000 die of foodborne disease.**

2011 Estimates of Foodborne Illness in the United States



**The total cost to society is unknown, but estimates are as high as \$152 billion per year.**

2010 Pew Charitable Trust

# Providing the vital link

**CDC provides the vital link between illness in people and the food safety systems of government agencies and food producers**

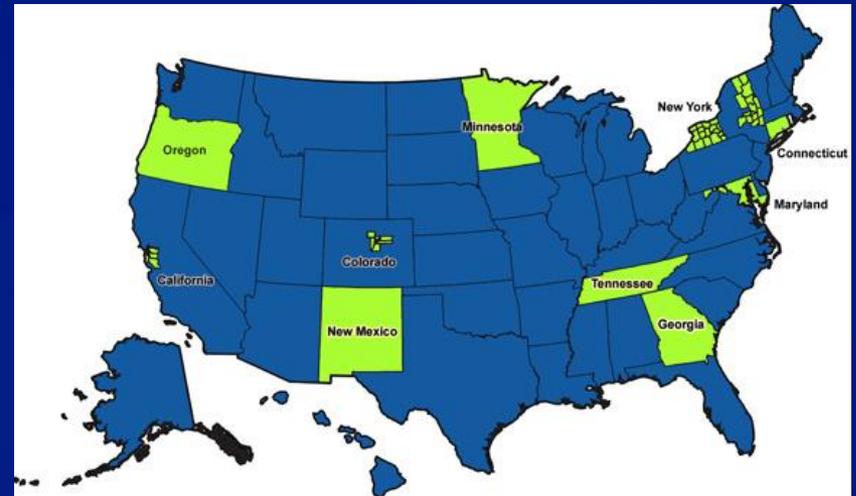


# Preventing foodborne infections is challenging...

- ❑ **Outbreak investigations continue to identify long-standing problems for which implementation of effective solutions has been slow**
- ❑ **The U.S. food supply is changing, with increased centralization of production, global sourcing of ingredients, and growth in the number of meals**
- ❑ **Foodborne illnesses can cause emotional and economic hardship**
  - *Salmonella* alone causes approximately 1 million foodborne infections and costs \$365 million in direct medical expenditures annually
  - The societal cost of a single fatal case of *Escherichia coli* (STEC) O157 infection has been estimated at \$7 million

# Foodborne Diseases Active Surveillance Network (FoodNet)

- Established in 1996
- Principal foodborne disease component of the Emerging Infections Program at the Centers for Disease Control and Prevention (CDC)
- Collaboration among CDC, ten participating state health departments, the United States Department of Agriculture-Food Safety and Inspection Service (USDA-FSIS), and the Food and Drug Administration (FDA)



# Vital Signs: MMWR Findings

- ***Salmonella* infections have not declined during the past 15 years**
  - 10% increase (CI= 4% to 17%) compared with 2006-2008
- **Shiga toxin-producing *Escherichia coli* (STEC) O157 infection has declined to the 2010 national health objective target of  $\leq 1$  case per 100,000**
- **Sustained declines in the incidence of infections caused by *Campylobacter*, *Listeria*, *Shigella*, and *Yersinia***

# What about high risk groups?

- The reported incidences of *Salmonella*, *Campylobacter*, *Shigella*, *Cryptosporidium*, STEC O157, STEC non-O157, and *Yersinia* infections were highest among children aged <5 years
- For infections with most pathogens under FoodNet surveillance, infected persons aged >60 years are at greater risk than younger persons for hospitalization and death

# What Can be Done

- ❑ **Government can implement policies and regulations and track and investigate illness**
- ❑ **Farmers, grocery stores, and places that make, sell, or serve food can**
  - Use good management practices to reduce contamination
  - Keep good records of where foods/food ingredients come from
  - Train and certify managers in food safety in all restaurants.
- ❑ **Health care providers can**
  - Diagnose and treat infections by using best practices and report them rapidly and talk to their high-risk patients about food safety
- ❑ **Everyone can follow safe food handling practices**
  - Clean, Separate, Cook, and Chill

# Key Points

- ❑ ***Salmonella* infections have not declined during the past 15 years**
- ❑ **In contrast, Shiga toxin–producing *Escherichia coli* (STEC) O157 infection has declined to the 2010 national health objective target of  $\leq 1$  case per 100,000**
- ❑ ***Salmonella* and other infections can be prevented using approaches similar to those that were successful in reducing STEC O157:**
  - Monitoring food production
  - Preventing food contamination
  - Investigating illnesses and outbreaks.

## Surveillance - more than numbers It's about people

**“I am the one asking you – on behalf of myself, my family, and the 1,500 others who were sickened – please make our food system safe.”**

*– Testimony from the congressional hearing, “The Outbreak of Salmonella in Eggs,” Sept. 22, 2010*



# Questions

## Websites:

<http://www.cdc.gov/ncezid/dfwed/index.html>

<http://www.foodsafety.gov/>

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

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Olga Henao, PhD  
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[dot8@cdc.gov](mailto:dot8@cdc.gov)

**For more information please contact Centers for Disease Control and Prevention**

1600 Clifton Road NE, Atlanta, GA 30333  
Telephone, 1-800-CDC-INFO (232-4636)/TTY: 1-888-232-6348  
E-mail: [cdcinfo@cdc.gov](mailto:cdcinfo@cdc.gov) Web: [www.cdc.gov](http://www.cdc.gov)

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.



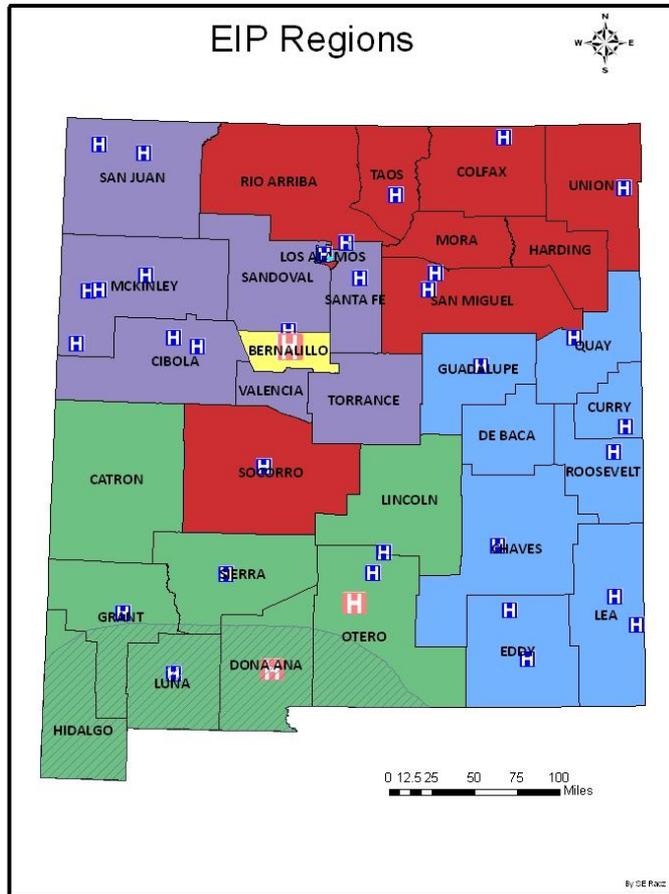
National Center for Emerging and Zoonotic Infectious Diseases  
Division of Foodborne, Waterborne, and Environmental Diseases

# FoodNet Surveillance: The New Mexico Experience

Sarah Lathrop, DVM, PhD  
Associate Professor of Pathology  
FoodNet Principal Investigator  
University of New Mexico



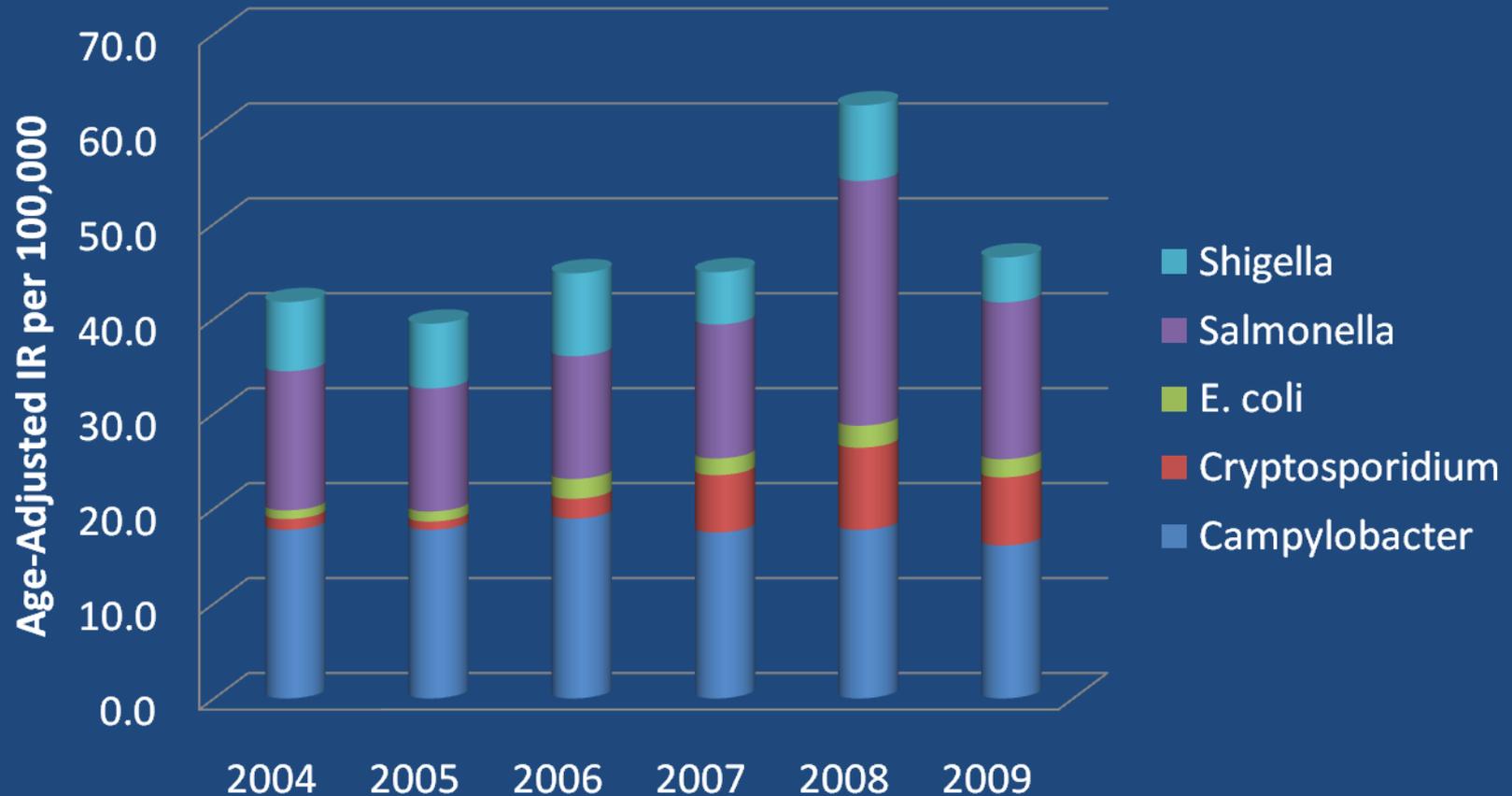
# Active surveillance challenges



- 5<sup>th</sup> largest state geographically
- Small, remote hospitals without electronic reports
- NM residents travel to Texas for health care
- American Indian population on reservations with limited communication access

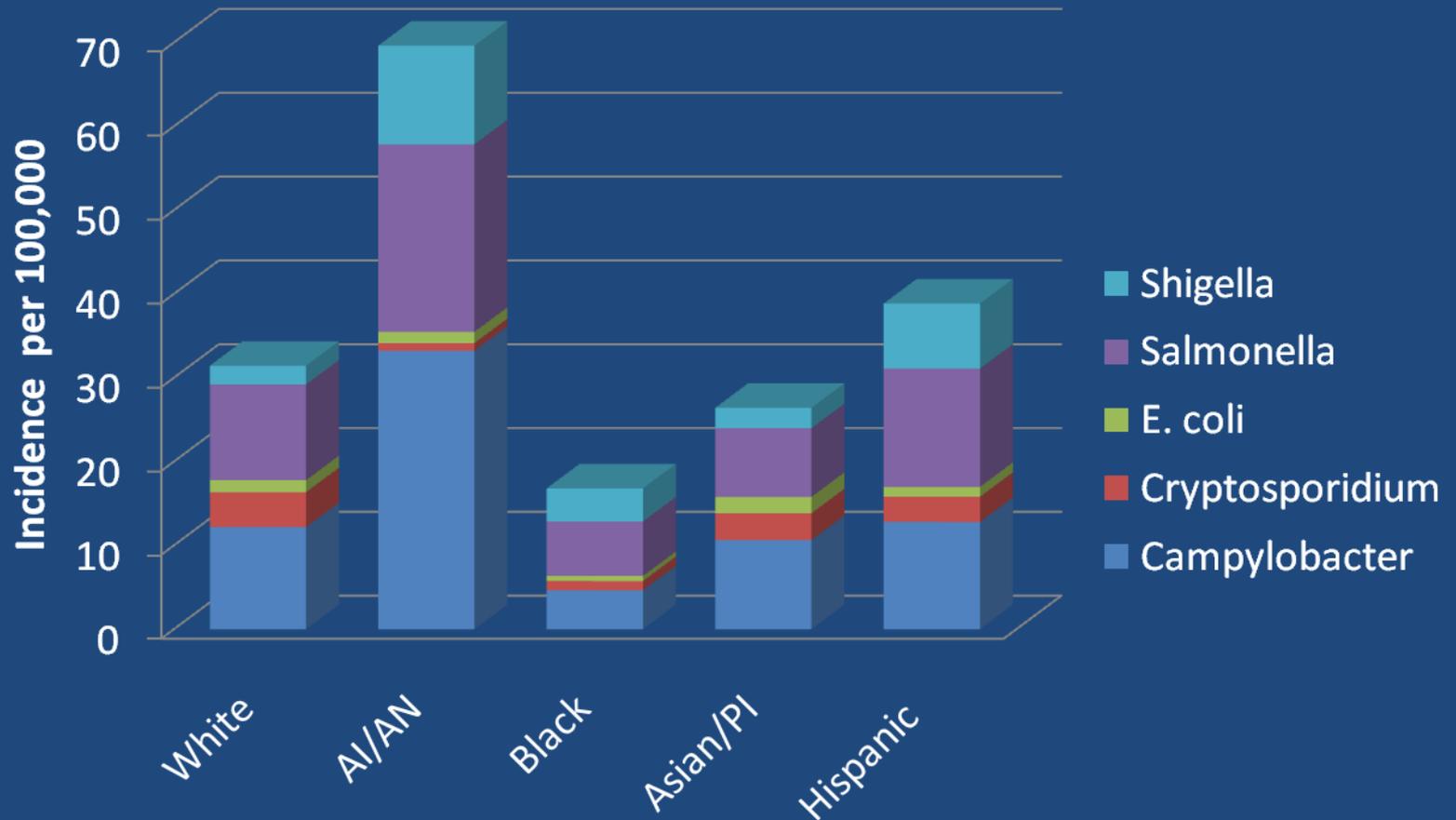
# New Mexico FoodNet Trends

## Cumulative 2004-2009 Incidence Rates

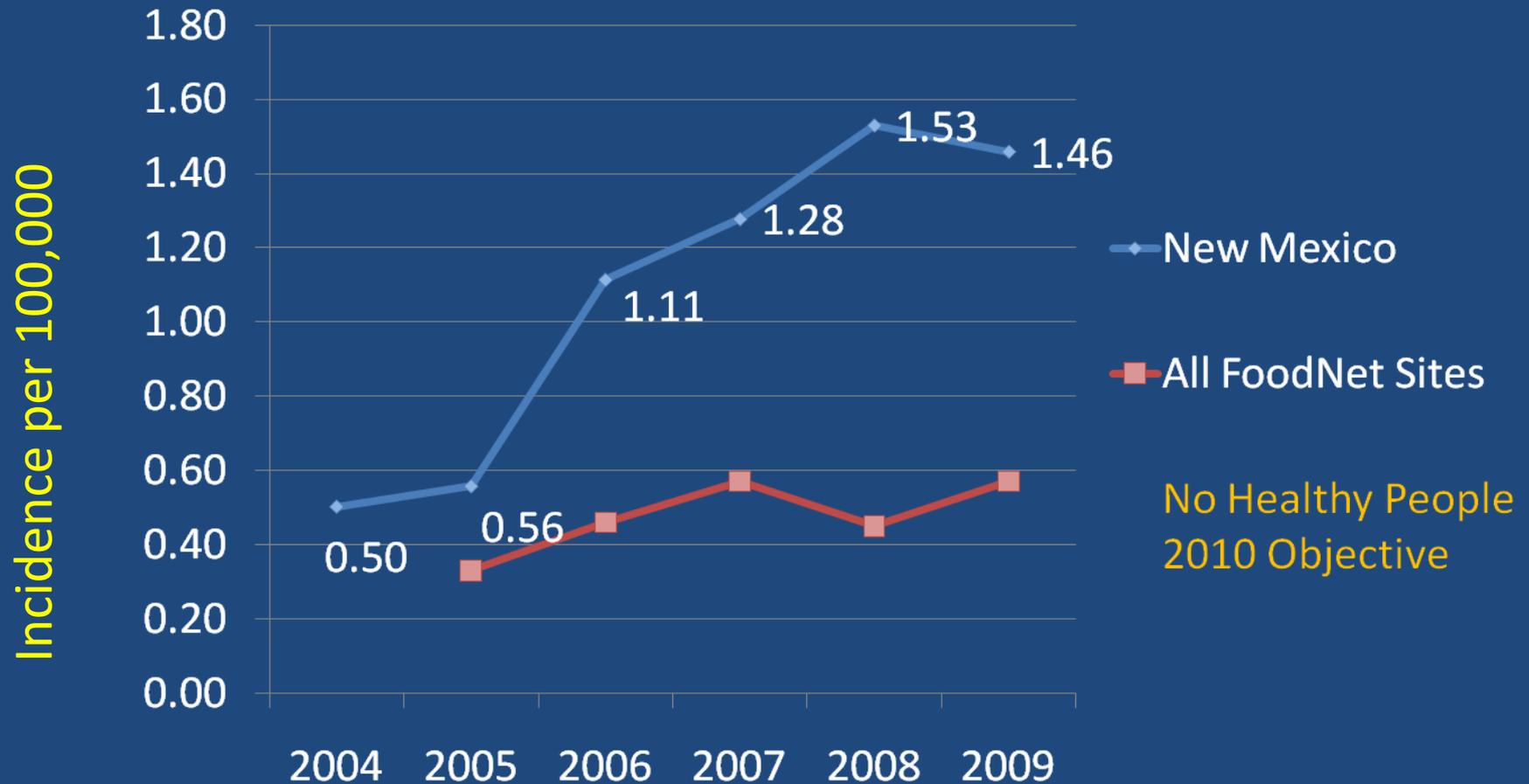


Note: 2009 IRs based on 2008 population estimates

# 5-Year Cumulative Disease Incidence by Organism & Race/Ethnicity New Mexico, 2004-2009



# Annual Incidence Rates of Shiga Toxin-Producing *E. coli* non-O157



Note: 2009 IRs based on 2008 population estimates

# Lessons learned

- Rely on building relationships in communities
- *Campylobacter* and *Salmonella* infections most commonly identified foodborne diseases in NM
- Higher incidence rates in border counties (*Shigella*) and American Indian populations
- Non-O157 infections increasing; role of non-culture diagnostics

# Thank you!

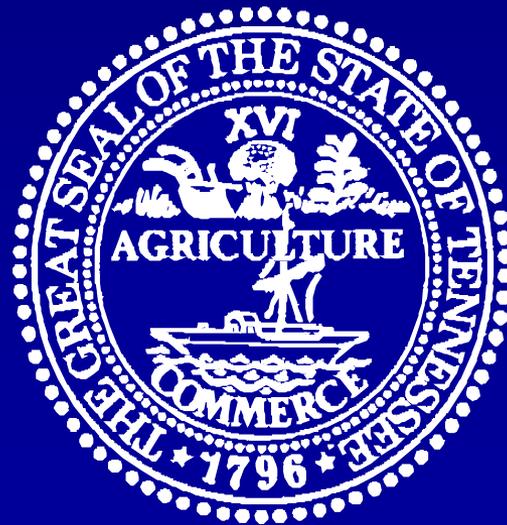
Sarah Lathrop, DVM, PhD  
FoodNet Principal Investigator  
New Mexico Emerging Infections Program  
University of New Mexico  
1601 Randolph Suite 100S MSC 09 5060  
Albuquerque, NM 87106  
505-272-3895  
[slathrop@salud.unm.edu](mailto:slathrop@salud.unm.edu)



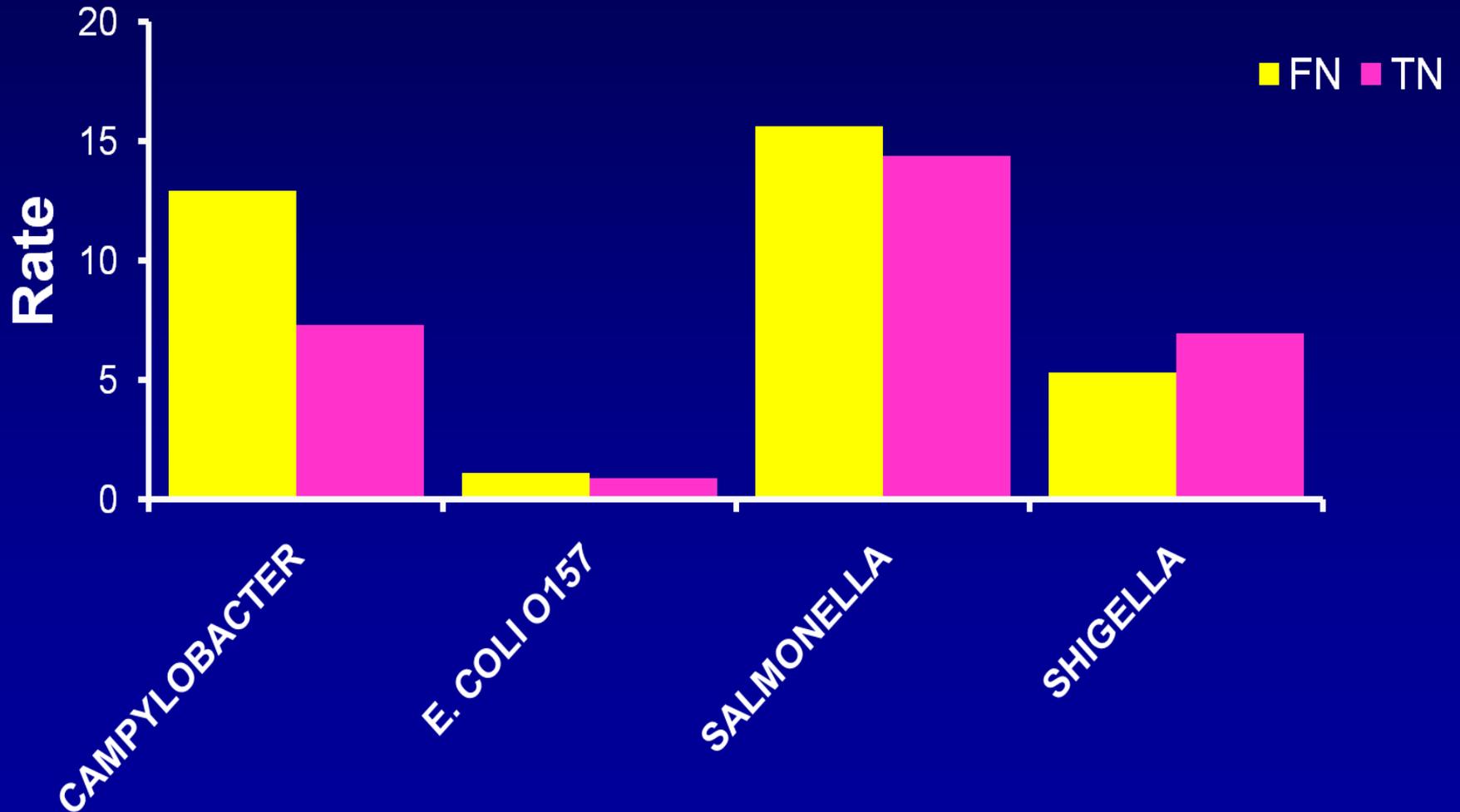
# FoodNet

## The Tennessee Perspective

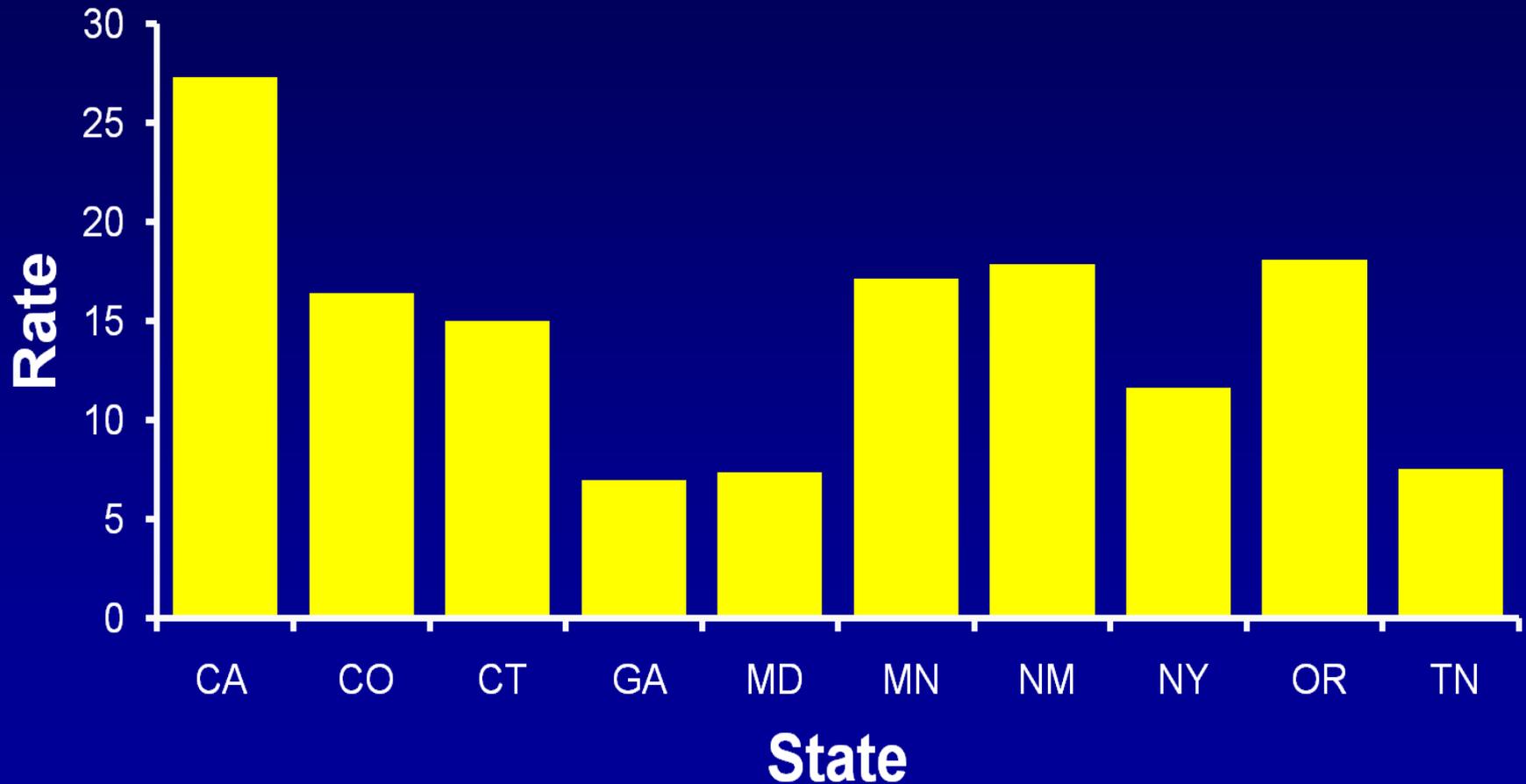
Timothy Jones, M.D.  
Tennessee Department of Health



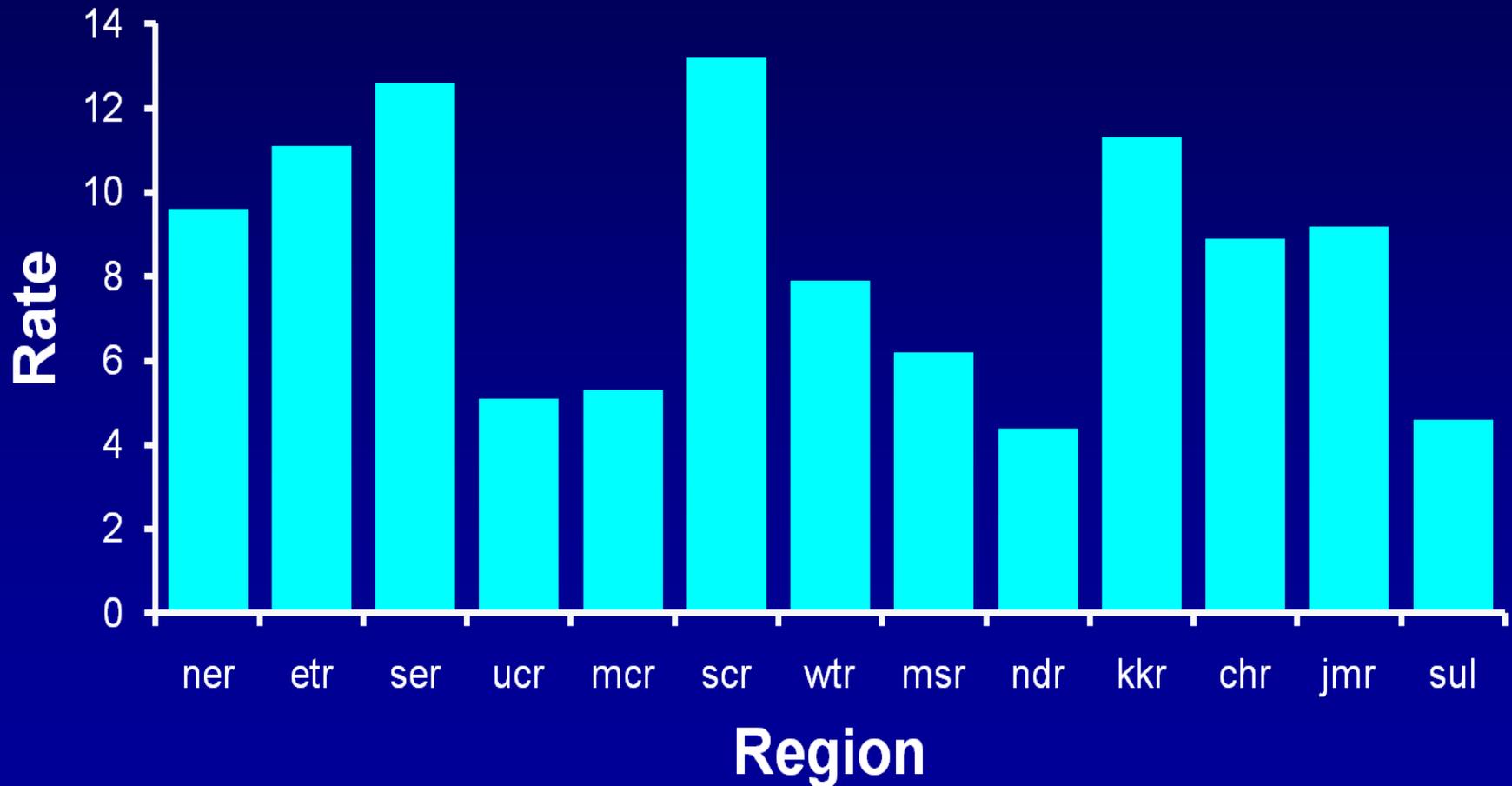
# Tennessee vs. FN Rates



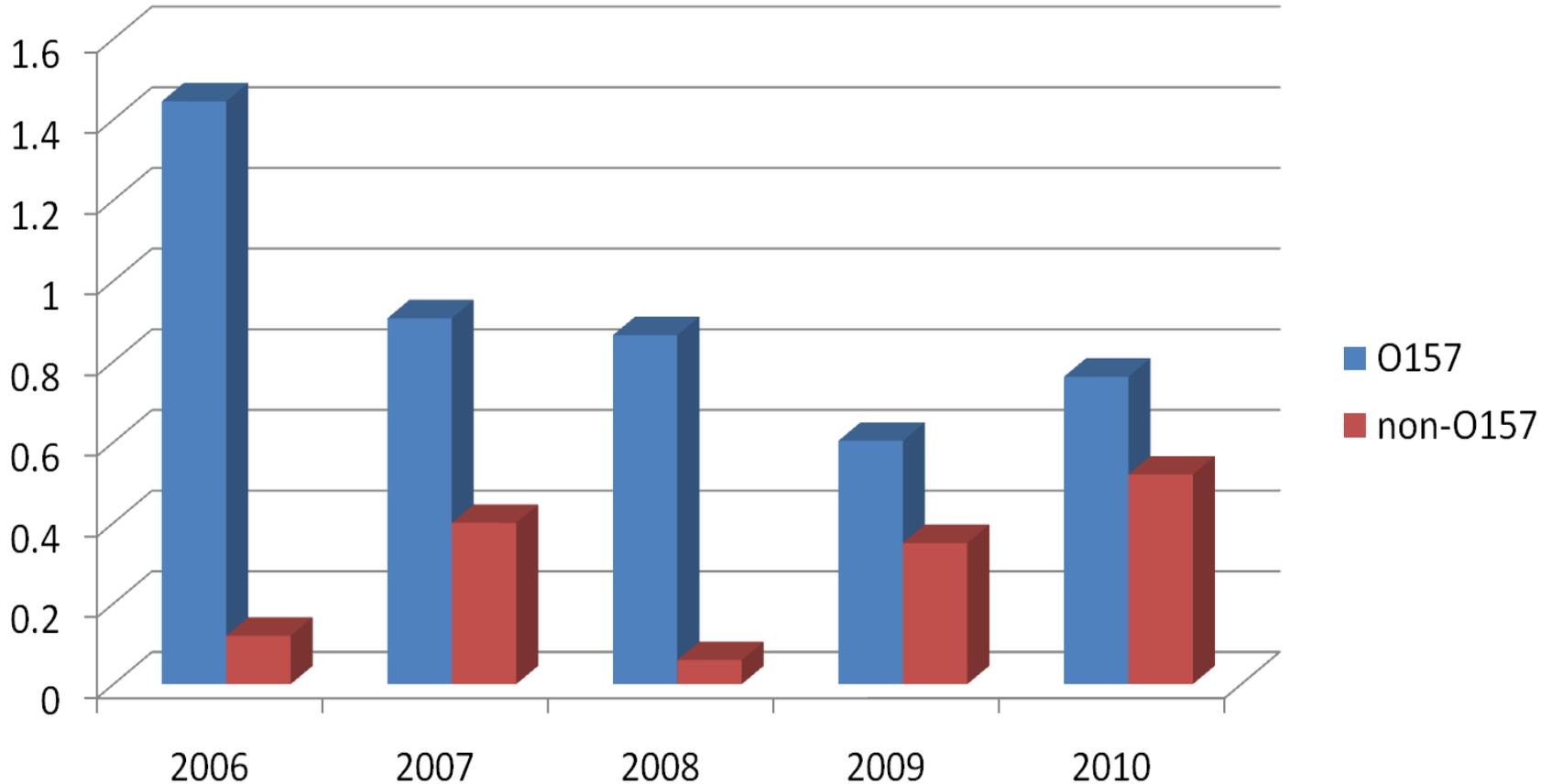
# Campylobacter, FoodNet 2006-2010



# *Campylobacter*, TN

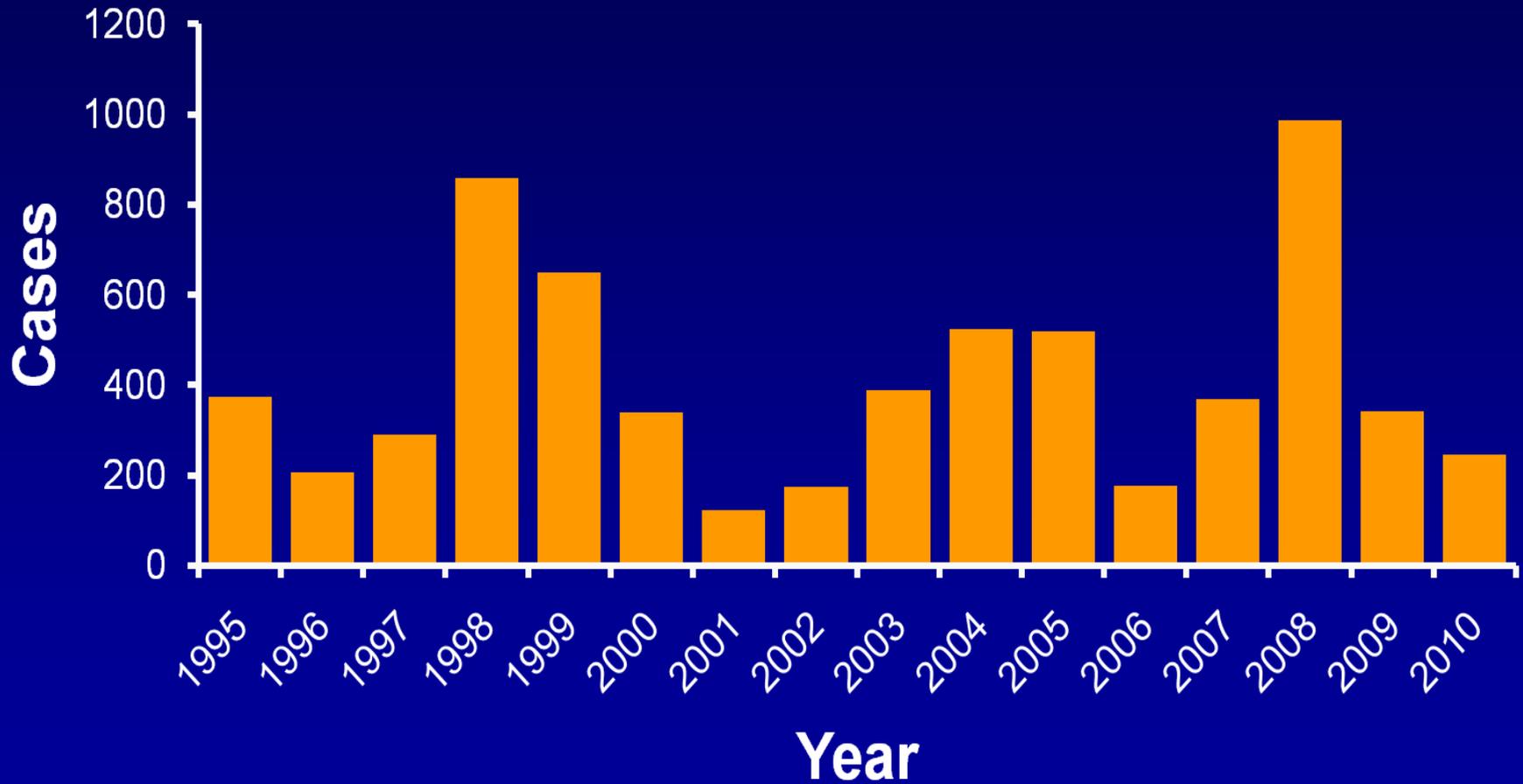


# Rates of Shiga toxin-producing *E.coli* Tennessee 2006-2010

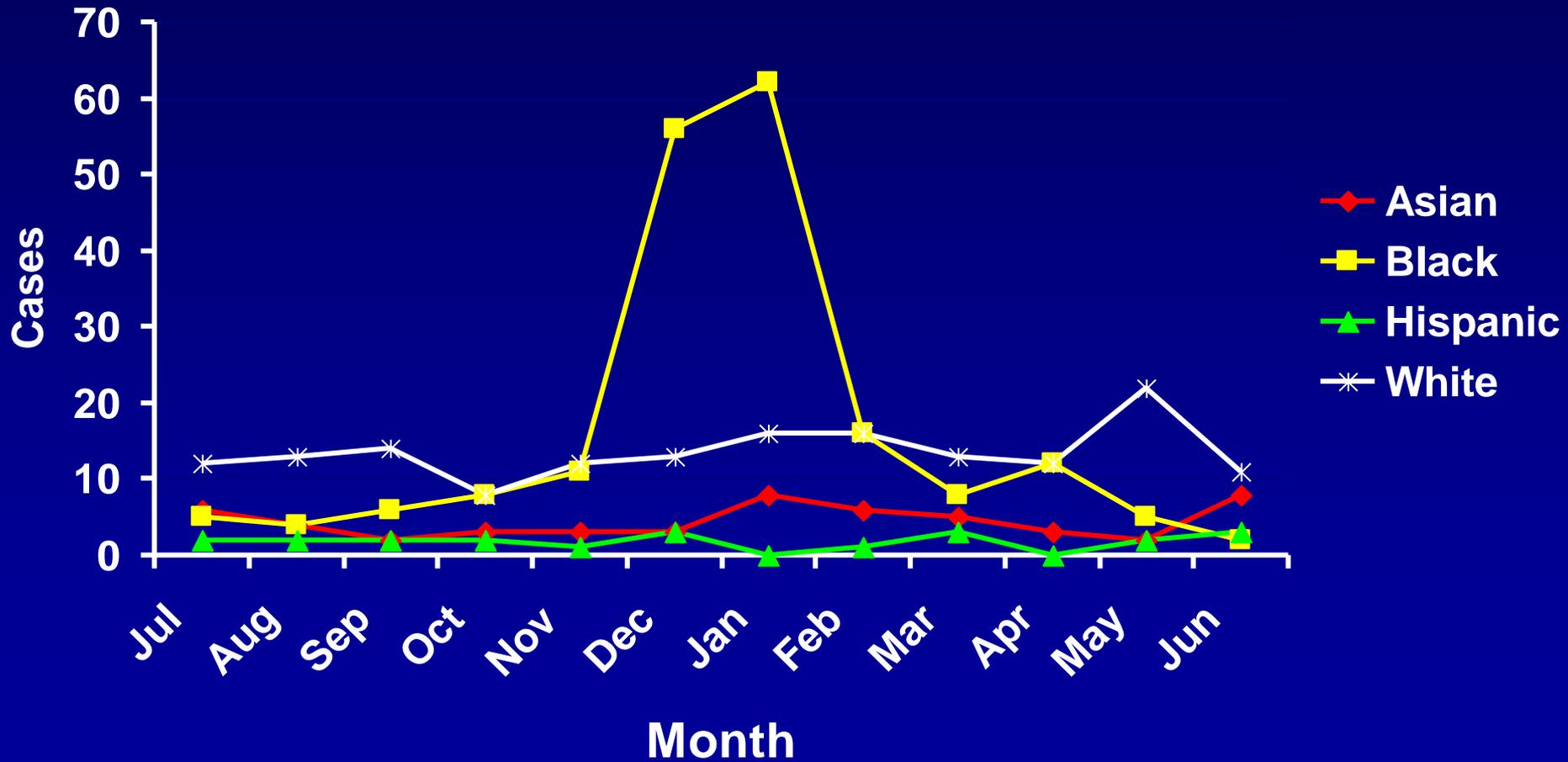


In 2007 16% of laboratories performed non-culture based testing.  
In 2010 this percentage increased to 52%

# Shigella, TN



# Seasonal Distribution of *Yersinia*



# Lessons

- **Very resource intensive**
- **Substantial local variation**
- **Local interventions important**
- **Must deal with technological changes**

**Contact information:**

**Timothy Jones, M.D.**

**Tennessee Department of Health**

**Tim.F.Jones@tn.gov**

# CDC Vital Signs Electronic Media Resources

Become a fan on Facebook-

<http://www.facebook.com/cdc>

Follow us on Twitter-

<http://twitter.com/cdcgov/>

Syndicate Vital Signs on your Website-

<http://tools.cdc.gov/register/cart.aspx>

Vital Signs Interactive Buttons and Banners-

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



# Provide Feedback on this Teleconference:

[OSTLTSFeedback@cdc.gov](mailto:OSTLTSFeedback@cdc.gov)



Please mark your calendars for the next OSTLTS Town Hall Teleconference:

**July 12, 2011**  
**2:00pm – 3:00pm EST**

**For more information please contact Centers for Disease Control and Prevention**

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Telephone, 1-800-CDC-INFO (232-4636)/TTY: 1-888-232-6348  
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