



# The Georgia Emerging Infections Program 2015 Update

Monica M. Farley, MD

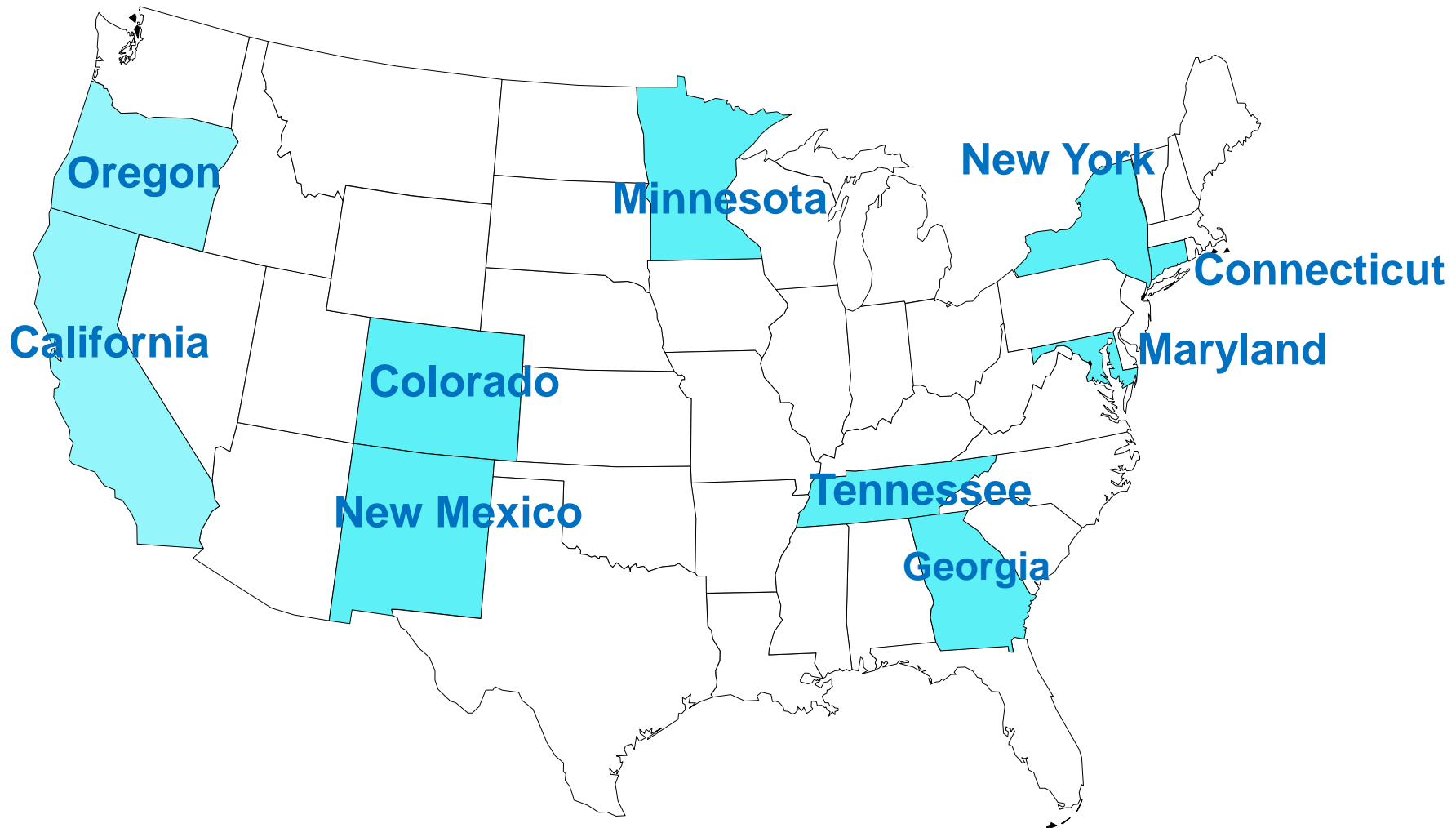
## Georgia EIP: A Collaboration between

- Georgia Department of Public Health
- Emory University School of Medicine
- Atlanta VA Medical Center
- Centers for Disease Control and Prevention

EMORY School of Medicine

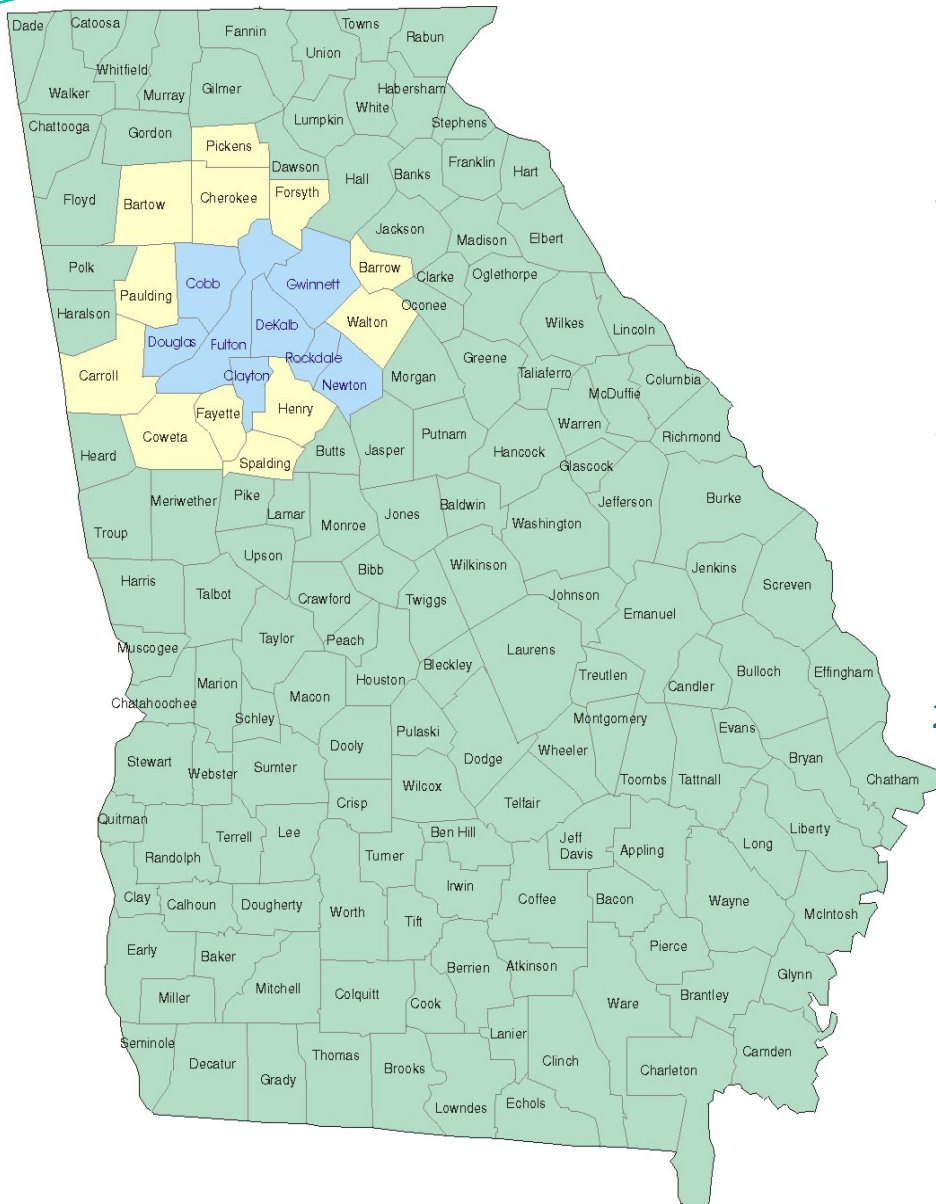


# 2014 States with CDC Funded EIPs



59-67 counties, 20-30 million surveillance population, ~7-9% US population  
Live births in participating ABCs sites, 2004: 455,000

# Emerging Infections Program GEORGIA



**2013 State Population 9.92 million**

**Racial distribution:**

63% White, 32% Black,  
9% Hispanic, 4% Asian

**Age Distribution:**

8% <5 yrs, 26% <18 yrs,  
63% 18-64 yrs, 10% 65+ yrs

**Live Births 135,000/yr**

**2013 20-County Metro Area (MSA)**

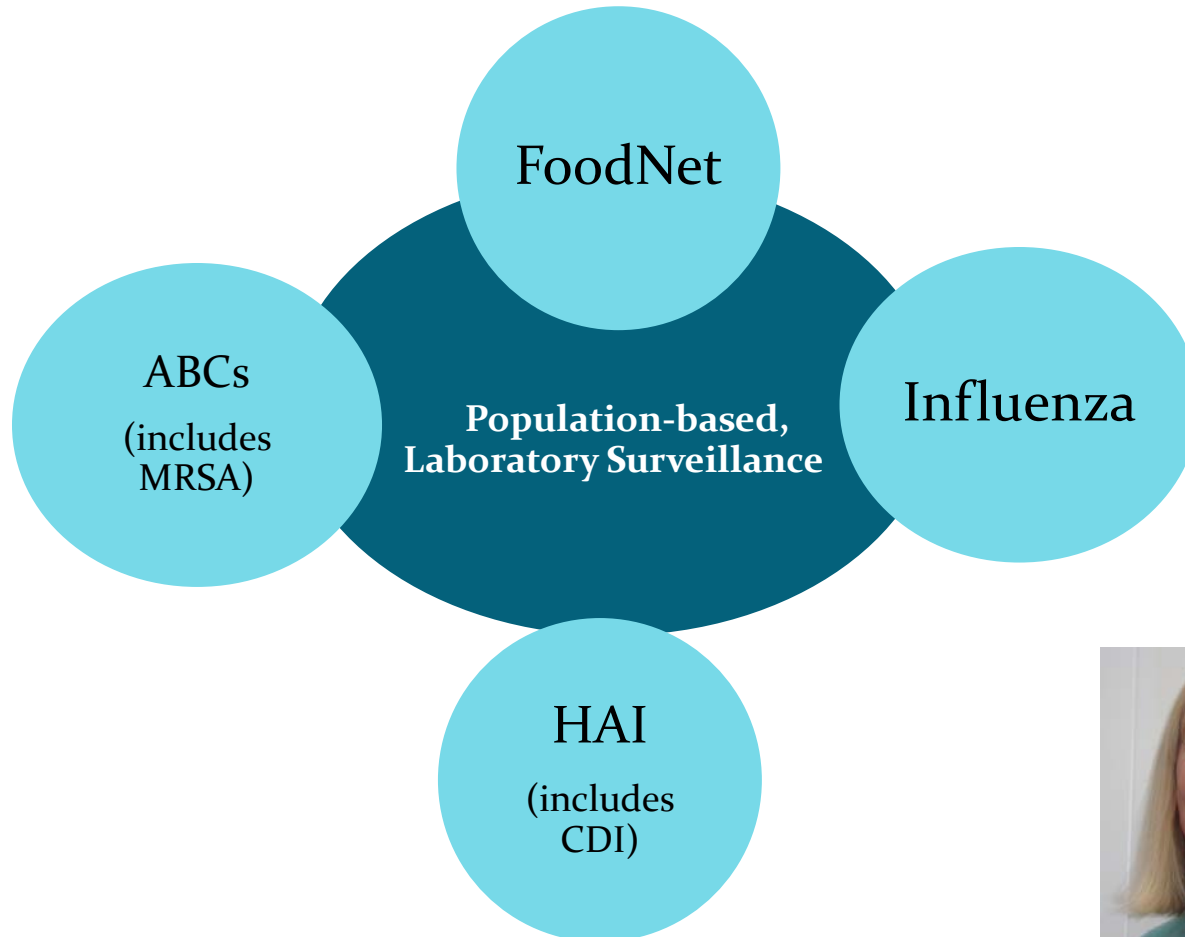
**Population 5.3 million**

(>50% of state pop.)

**Live Births 71,541/yr**

(>50% of state births)

# Emerging Infections Program



23 years and counting!

# EIP Active Surveillance 2015

## ABCs

Group A Streptococcus (MSA)  
Group B Streptococcus (MSA; <1yr olds,  
early & late onset expanded  
surveillance- statewide)  
*Haemophilus influenzae* (statewide)  
*Neisseria meningitidis* (statewide)  
*Streptococcus pneumoniae*-MSA  
MRSA—invasive (HD<sub>3</sub>)  
Neonatal Sepsis (HD<sub>3</sub>)  
*Legionella* (HD<sub>3</sub>)  
Pertussis (HD<sub>3</sub>)

## HAI

(All HD<sub>3</sub>)  
Candidemia  
Carbapenem-nonsusceptible  
Gram Negative Bacilli  
*C. difficile*

## FoodNet

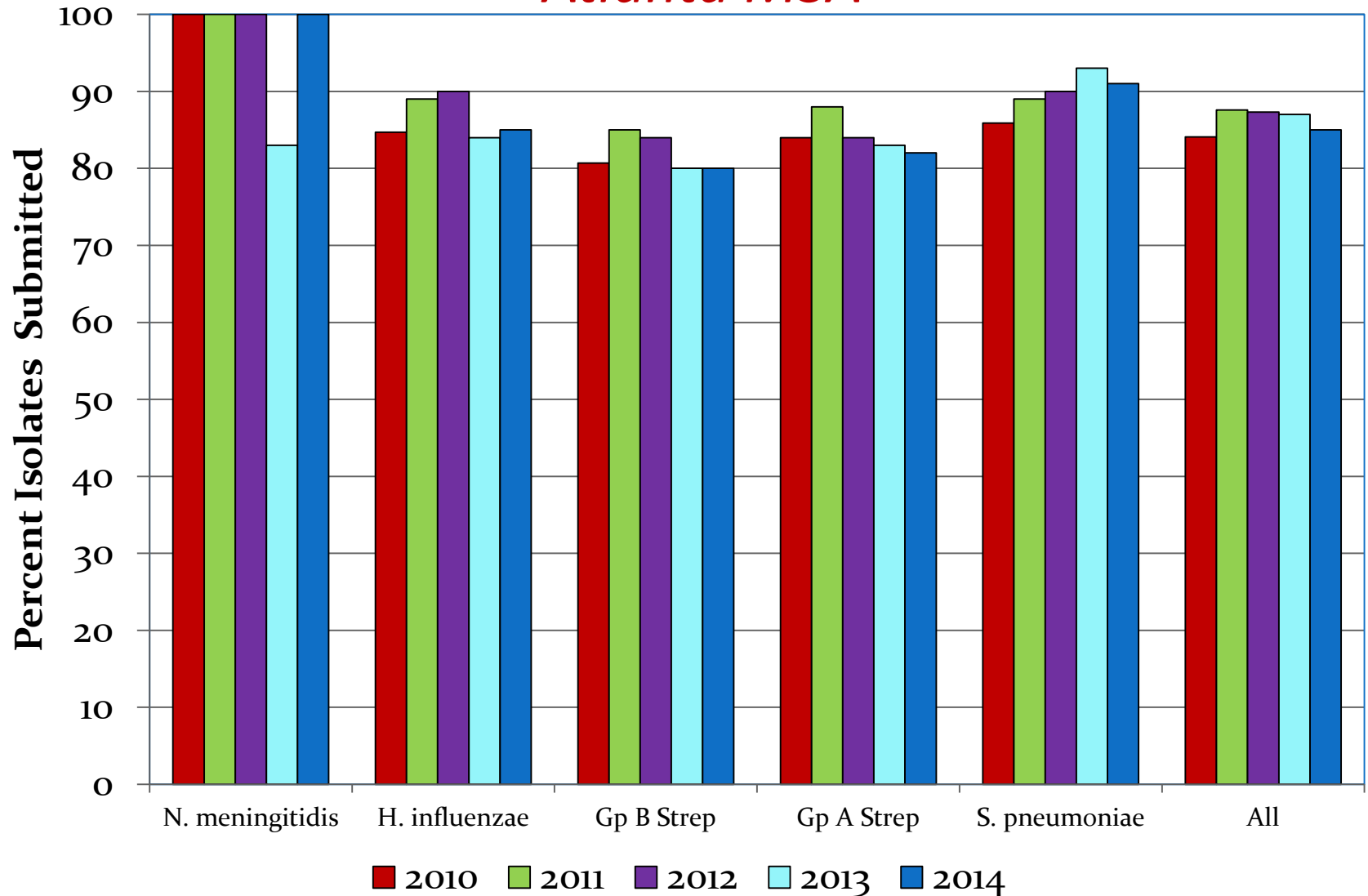
(All statewide)  
*Campylobacter*  
E.coli O157 or SLT+  
*Listeria monocytogenes*  
*Salmonella*  
*Shigella*  
*Yersinia*  
*Vibrio*  
*Cyclospora*  
*Cryptosporidium*

## Influenza

Laboratory confirmed,  
hospitalized influenza (HD<sub>3</sub>)

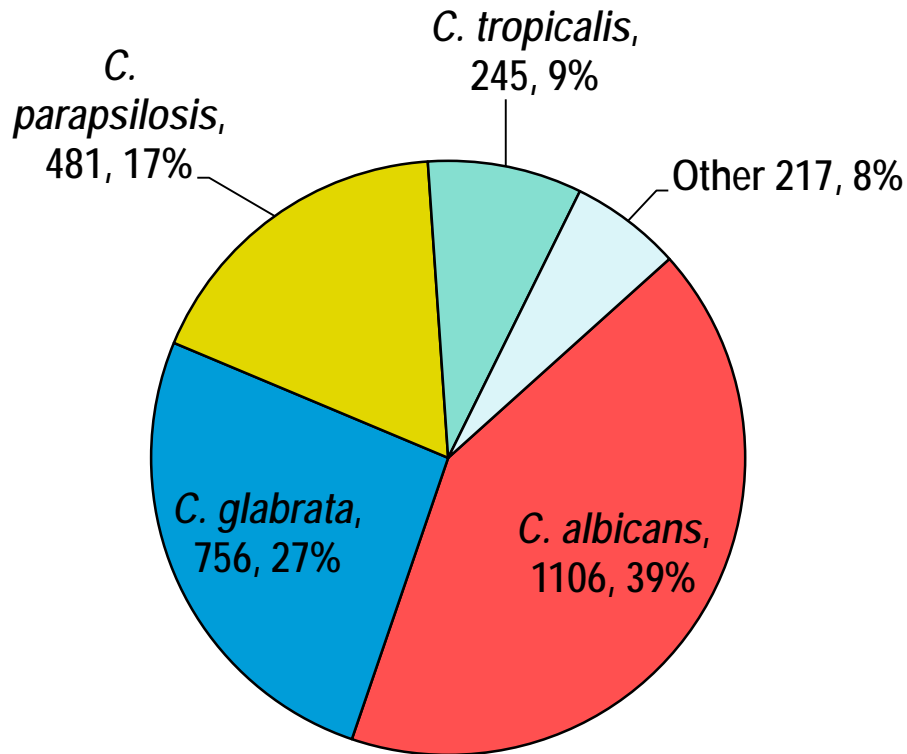
# ISOLATE SUBMISSION of ABCs PATHOGEN BY YEAR

## *Atlanta MSA*





# Candidemia Species and Antifungal Susceptibility Findings, 2008 – 2014\*



n=2805

## Antifungal Susceptibility

(performed at CDC)

As of August 2014, >2805 Georgia isolates tested

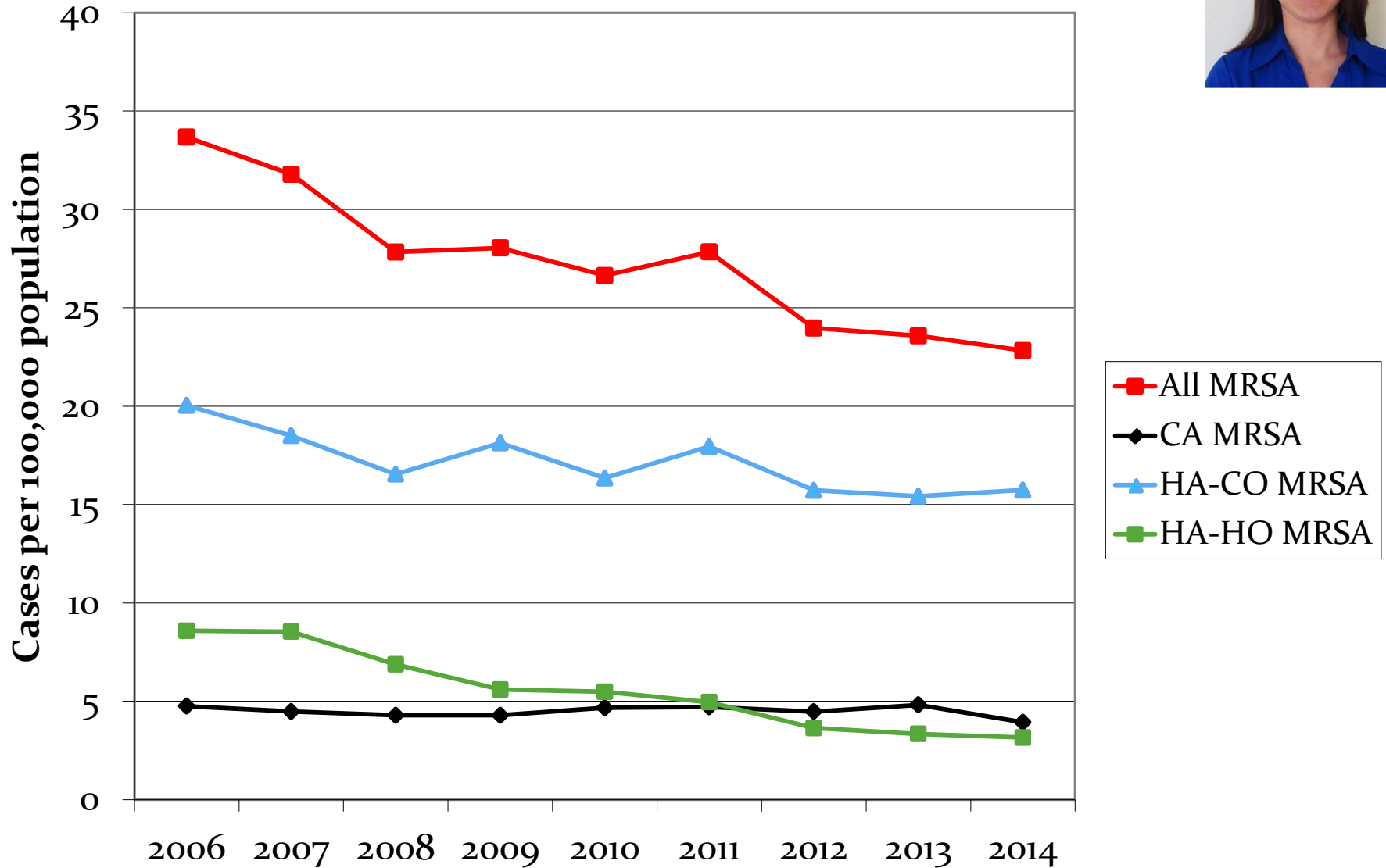
*C. parapsilosis* and *C. tropicalis*:  
5% isolates resistant to fluconazole

*C. glabrata*: considered 100%  
resistant to fluconazole; 5% also  
show resistance to at least one  
echinocandin

\*as of 8/28/2014

# Incidence of Invasive MRSA

## Georgia Health District 3

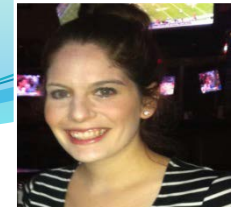
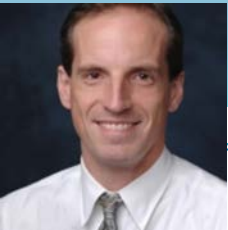




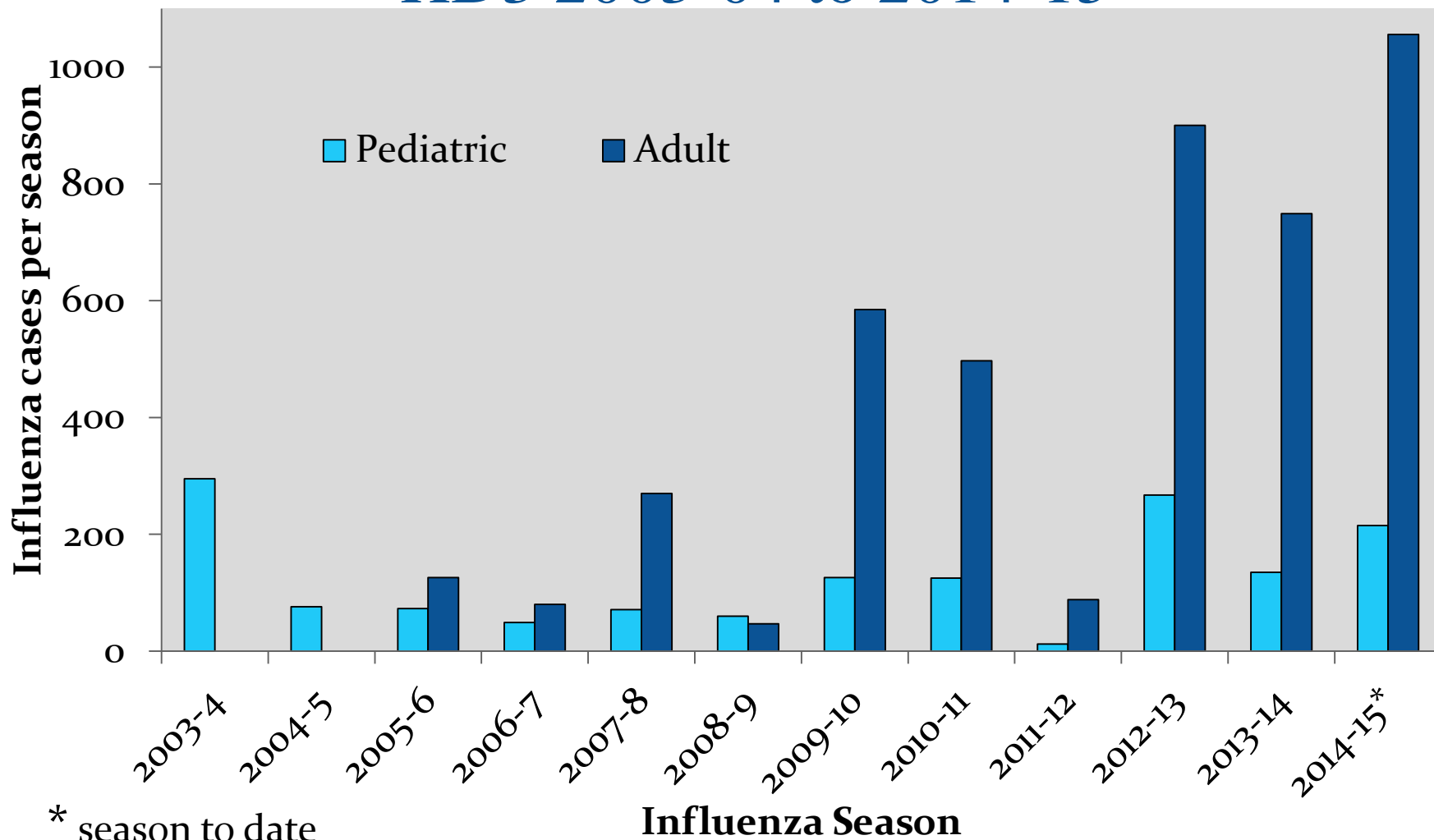


# Influenza

(Hospitalized, laboratory confirmed)



# Hospitalized Influenza Cases by Season, Georgia HD3 2003-04 to 2014-15\*

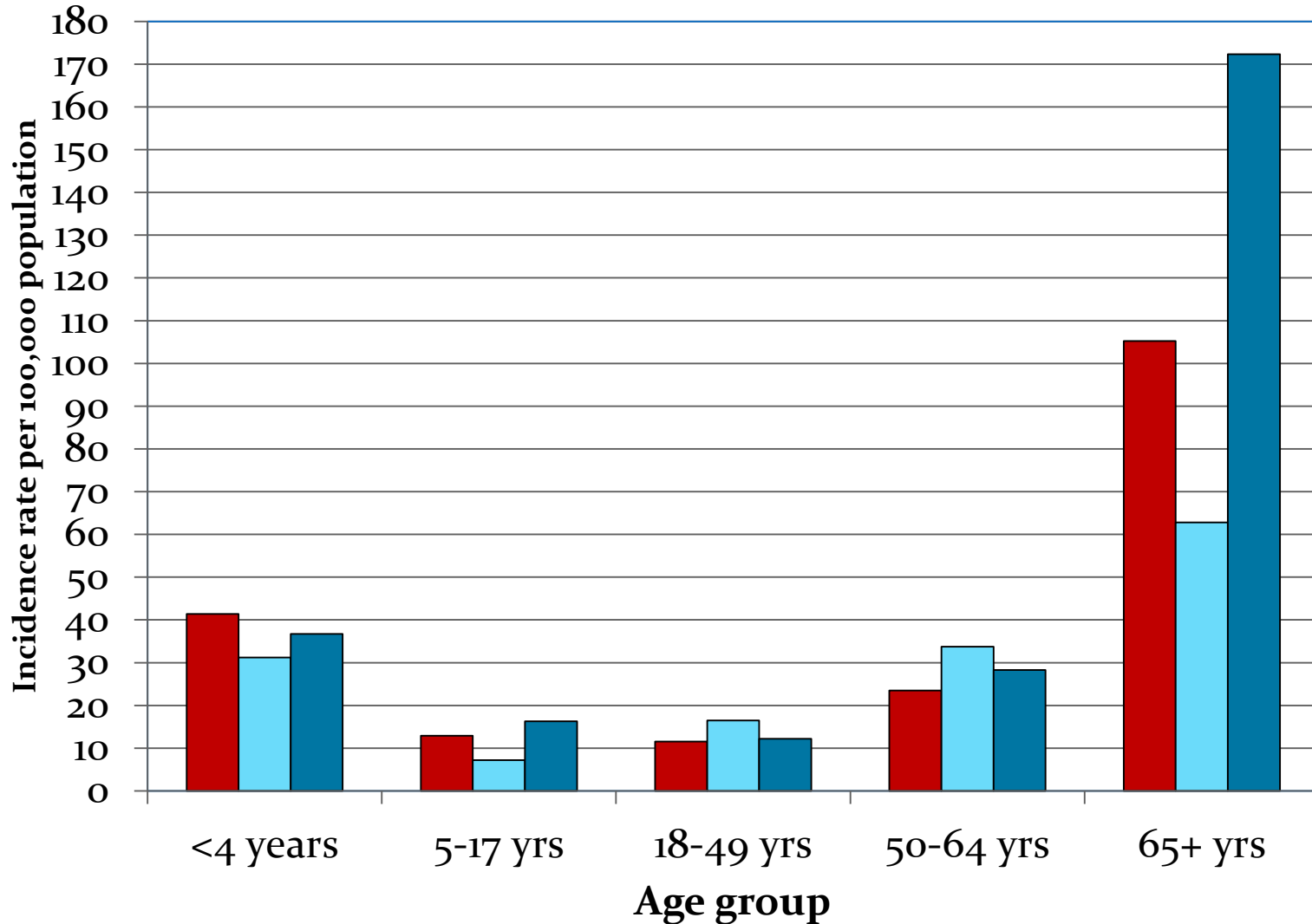


\* season to date

# GA-EIP Influenza Case Rate by Age Group

## 2012-13, 2013-14 and 2014-15 (incomplete)

■ 2012-13 (H<sub>3</sub>N<sub>2</sub>)    ■ 2013-14 (H<sub>1</sub>N<sub>1</sub>)    ■ 2014-15 (H<sub>3</sub>N<sub>2</sub>)





# *Clostridium difficile* Infection (CDI)

N ENGL J MED 372;9 NEJM.ORG FEBRUARY 26, 2015

*The* NEW ENGLAND JOURNAL *of* MEDICINE

ORIGINAL ARTICLE

# Burden of *Clostridium difficile* Infection in the United States

Fernanda C. Lessa, M.D., M.P.H., Yi Mu, Ph.D., Wendy M. Bamberg, M.D.,  
Zintars G. Beldavs, M.S., Ghinwa K. Dumyati, M.D., John R. Dunn, D.V.M.,  
Ph.D., Monica M. Farley, M.D., Stacy M. Holzbauer, D.V.M., M.P.H., James I.  
Meek, M.P.H., Erin C. Phipps, D.V.M., M.P.H., Lucy E. Wilson, M.D., Lisa G.  
Winston, M.D., Jessica A. Cohen, M.P.H., Brandi M. Limbago, Ph.D. Scott K.  
Fridkin, M.D., Dale N. Gerding, M.D., and L. Clifford McDonald, M.D.



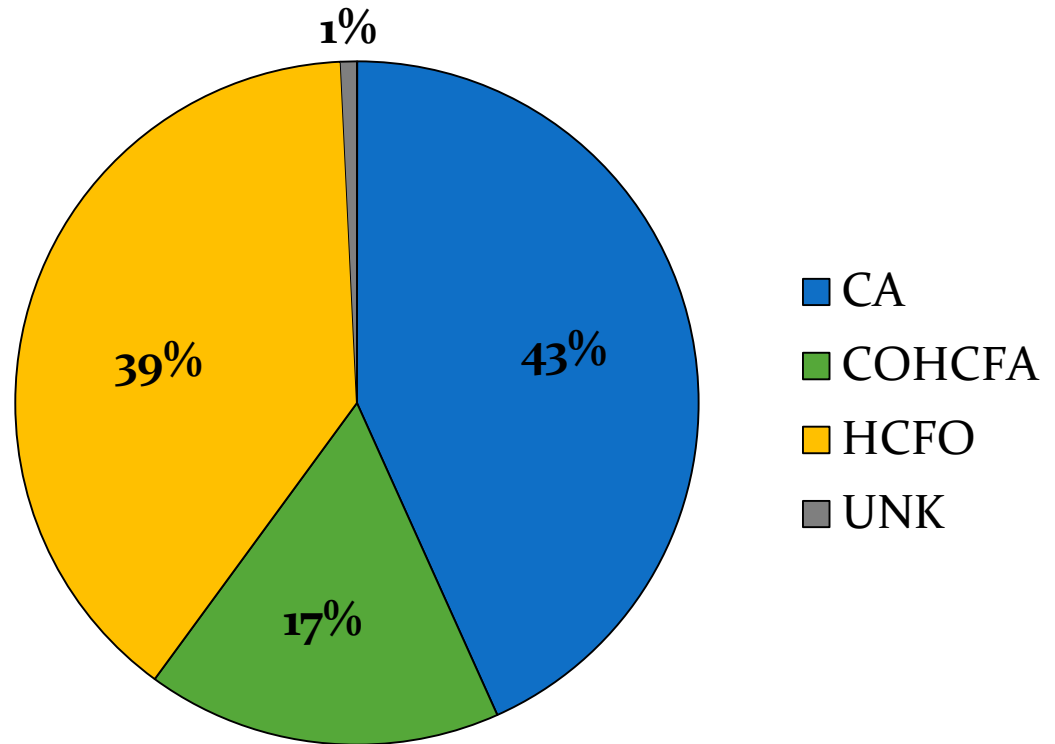
# CDI Case Classification Definition

- **Health Care Facility Onset (HCFO)**: In healthcare facility for more than three days prior to stool collection for incident positive *C. difficile* test
- **Community Onset-Health Care Facility Associated (CO-HCFA)**: Case not hospitalized or hospitalized no more than 3 days at time of stool collection; with a recent past overnight hospitalization during the 12 weeks prior to positive *C. difficile* test identified
- **Community Associated (CA)**: Case not hospitalized or hospitalized no more than 3 days at time of stool collection. Completed chart review and no reported hospitalizations in 12 weeks prior to incident stool

# 2013 CDI Classification

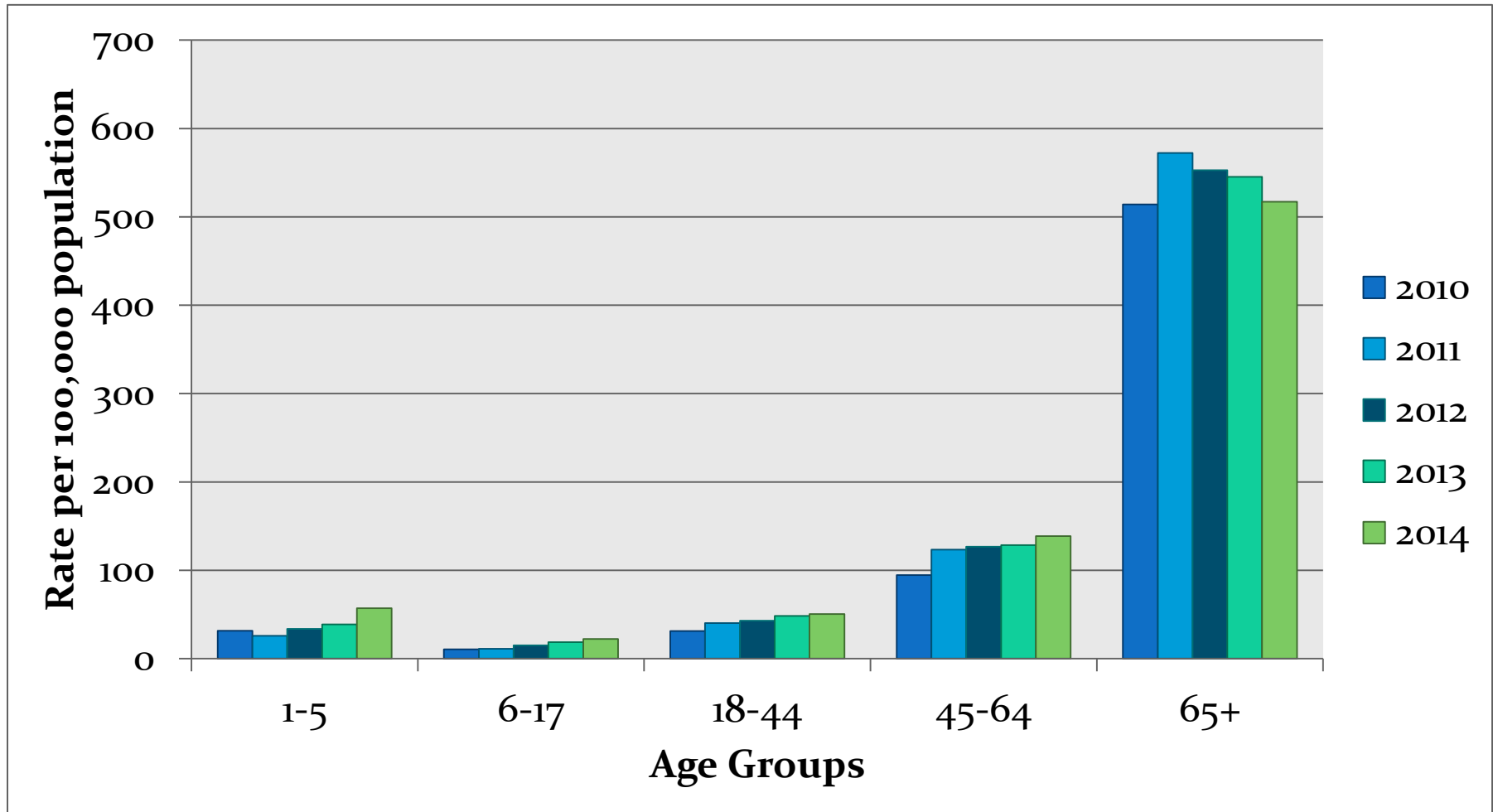
4246 Eligible cases

- 1583 sampled\*
- CA: 685
- CO-HCFA: 266
- HCFO: 620



\*Sampling scheme: 100% of 1-17 yr olds included; 1/3 sample of the following age/gender groups: 18-44 F, 18-44 M, 45-64 F, 45-64 M, 65+ F, 65+ M

# CDI Rates by Age Group 2010-2014\*

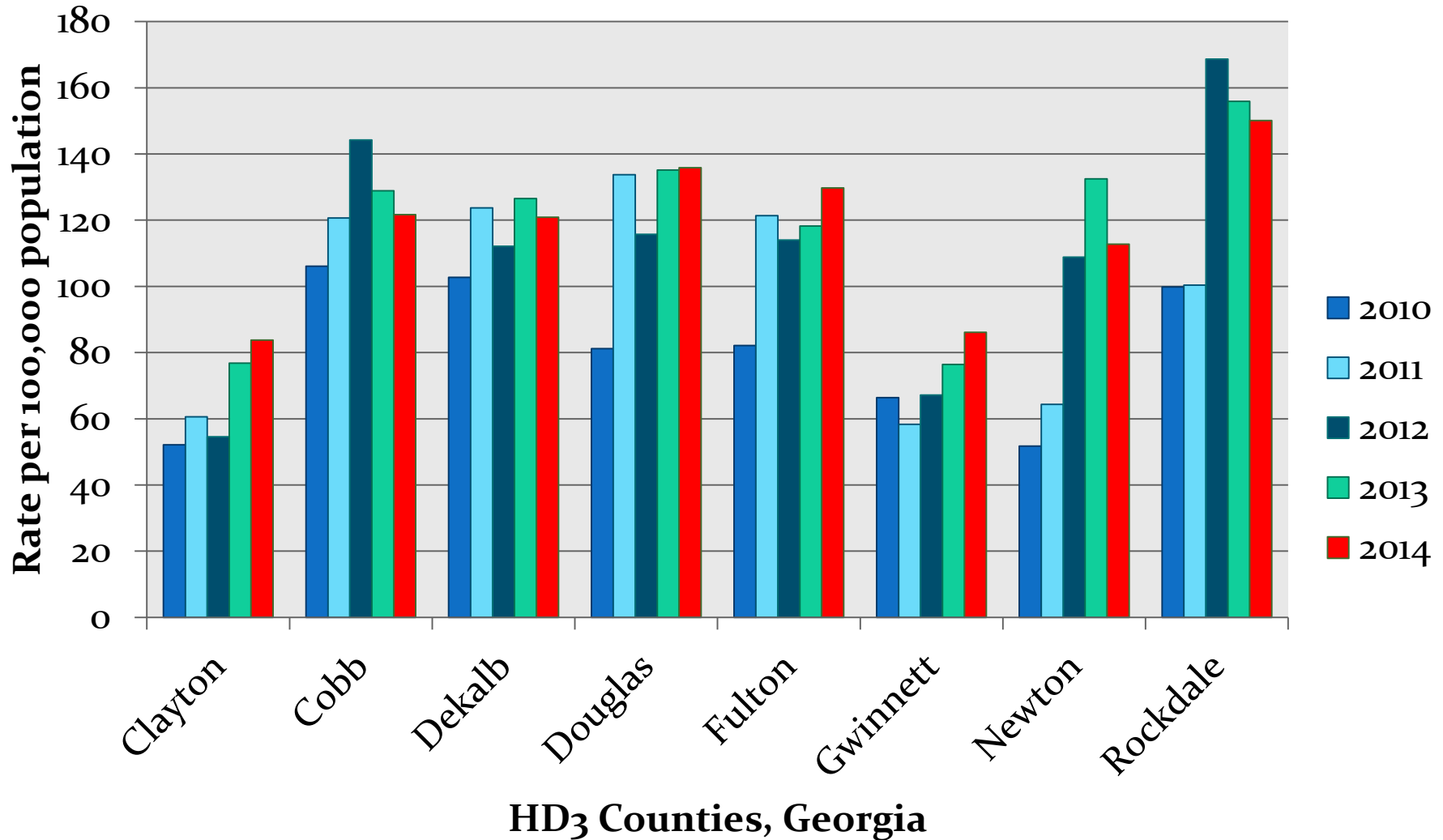


\* 2014 data pending close out and uses 2013 population estimates



# CDI Incidence Rates by County

## 2010-2014





# Prevalence of Healthcare Associated Infections (HAI) and Antibiotic Use (AU)



N ENGL J MED 370;13 NEJM.ORG MARCH 27, 2014

The New England Journal of Medicine

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

## Multistate Point-Prevalence Survey of Health Care–Associated Infections

Shelley S. Magill, M.D., Ph.D., Jonathan R. Edwards, M.Stat.,  
Wendy Bamberg, M.D., Zintars G. Beldavs, M.S., Ghinwa Dumyati, M.D.,  
Marion A. Kainer, M.B., B.S., M.P.H., Ruth Lynfield, M.D., Meghan Maloney, M.P.H.,  
Laura McAllister-Hollod, M.P.H., Joelle Nadle, M.P.H., Susan M. Ray, M.D.,  
Deborah L. Thompson, M.D., M.S.P.H., Lucy E. Wilson, M.D.,  
and Scott K. Fridkin, M.D., for the Emerging Infections Program  
Healthcare-Associated Infections and Antimicrobial Use Prevalence Survey Team\*

- **1 in 25 hospital inpatients (4%) had at least one HAI**
- **Estimated national burden of 722,000 HAIs in 648,000 patients in 2011**
- **Pneumonia and surgical site infections were most common HAI types**
- ***Clostridium difficile* was most common pathogen**
- **Device-related infections: 25.6% of total**



Original Investigation | October 8, 2014

## Prevalence of Antimicrobial Use in US Acute Care Hospitals, May-September 2011

Shelley S. Magill, MD, PhD<sup>1</sup>; Jonathan R. Edwards, MStat<sup>1</sup>; Zintars G. Beldavs, MS<sup>2</sup>; Ghinwa Dumyati, MD<sup>3</sup>; Sarah J. Janelle, MPH<sup>4</sup>; Marion A. Kainer, MBBS, MPH<sup>5</sup>; Ruth Lynfield, MD<sup>6</sup>; Joelle Nadle, MPH<sup>7</sup>; Melinda M. Neuhauser, PharmD, MPH<sup>1,8</sup>; Susan M. Ray, MD<sup>9,10</sup>; Katherine Richards, MPH<sup>11</sup>; Richard Rodriguez, MPH<sup>12</sup>; Deborah L. Thompson, MD, MSPH<sup>13</sup>; Scott K. Fridkin, MD<sup>1</sup> ; for the Emerging Infections Program Healthcare-Associated Infections and Antimicrobial Use Prevalence Survey Team

*JAMA*. 2014;312(14):1438-1446.

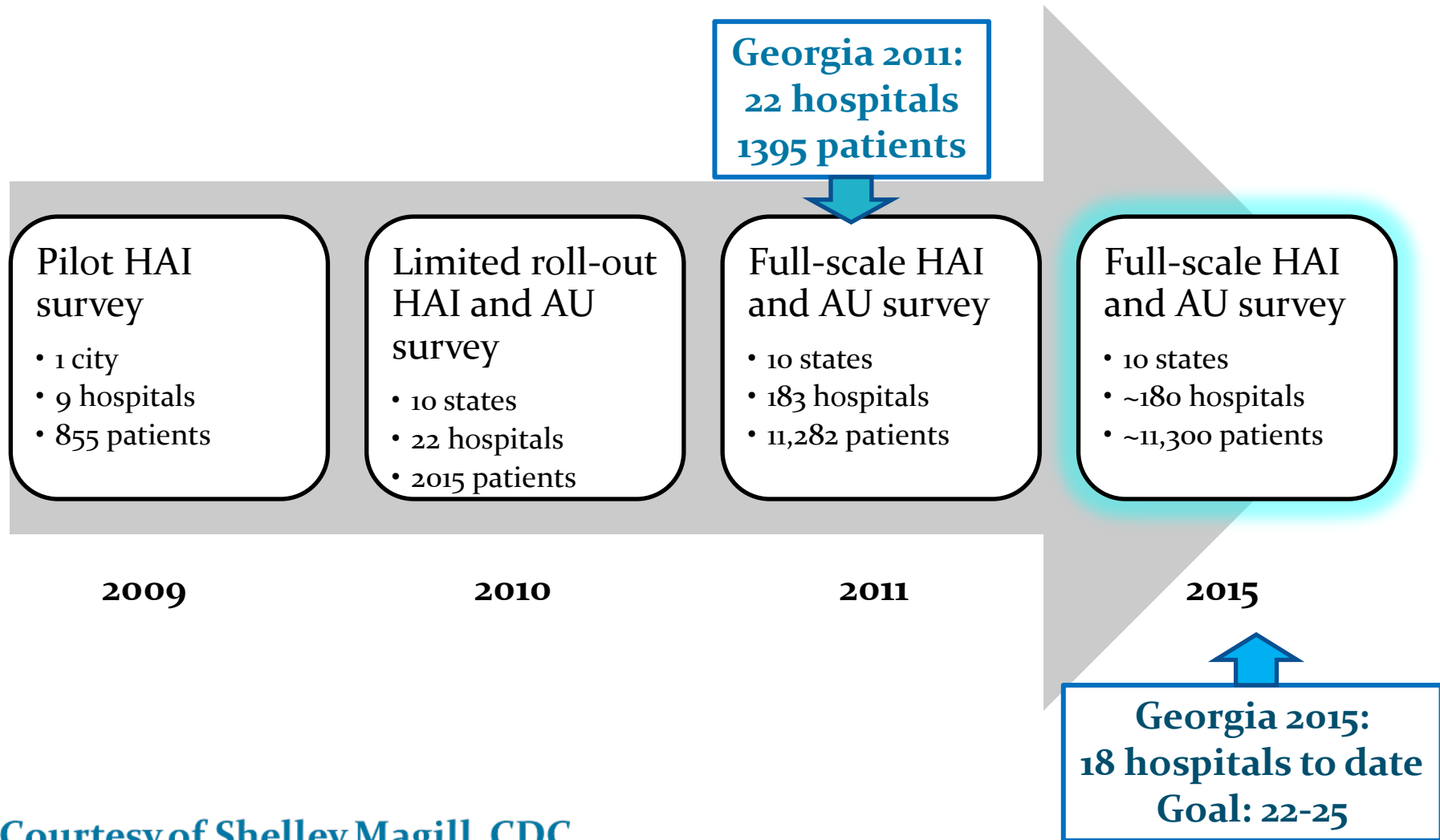
doi:10.1001/jama.2014.12923.

- **50% of patients were on antimicrobials at the time of the survey**
- **Of patients getting antimicrobials, half were getting  $\geq 2$**
- **Few differences in treatment given to patients in/outside of ICUs, for community and healthcare infections**

# Value of HAI and Antibiotic Use (AU) Prevalence Survey in 2015

- **Complements NHSN and provides the “big picture” of hospital HAIs and AU and changes over time**
  - National HAI burden estimation
  - Most common infections and pathogens
  - Most common antimicrobials and indications
  - Changes in HAIs and AU since 2011 survey
- **Can be combined with large-scale assessment of antimicrobial drug prescribing quality (will be done in 2015)**
- **Provides data to address the question of what the next targets should be to continue to improve patient safety**
  - HAI surveillance and prevention
  - Antimicrobial stewardship

# U.S. HAI and Antibiotic Use Prevalence Surveys





# Goodbyes.....



**Olivia Almendares, MSPH**  
CDI Coordinator



**Jessica Reno, MPH**  
MuGSI/CRE Coordinator



**Leigh Ann Clark, MT, MPH**  
Surveillance Officer



**Betsy Stein, RN**  
Candidemia Coordinator



**Nicole Romero, BS**  
Research Interviewer



**Calista Schneck, MT, MPH**  
Surveillance Officer



**Congratulations!**



**Amy and Rauf Tunali  
Married April 26, 2014**

# MSA Surveillance Staff and Contact Information

Spring 2015

# Emerging Infections Program GEORGIA



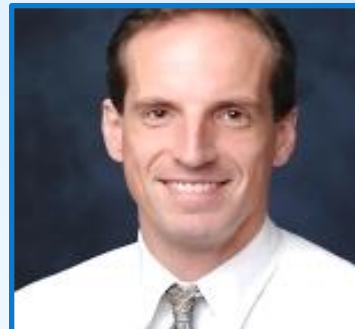
**Monica Farley, MD**  
EIP Principal  
Investigator



**Susan Ray, MD**  
EIP MRSA Surveillance  
Principal Investigator



**Jesse Jacob, MD**  
EIP MuGSI/CRE Surveillance  
Principal Investigator



**Evan Anderson, MD**  
EIP Influenza Surveillance  
Principal Investigator



**Sarah Satola, PhD**  
EIP Laboratory Director  
ssatola@emory.edu



**Wendy Baughman, MSPH**  
EIP Coordinator  
(404) 321-6111  
ext. 6478  
wbaughm@gaeip.org



**Suzanne Segler, MPH**  
Foodnet Coordinator  
(404) 321-6111  
ext. 6492  
ssegler@gaeip.org



**Kyle Openo, MPH**  
Influenza Coordinator  
(404) 321-6111  
ext. 2530  
kopeno@gaeip.org



**Stepy Thomas, MSPH**  
ABCs Coordinator  
(404) 321-6111 ext. 6059  
smthomas@gaeip.org



**Amy Tunali, MPH**  
MRSA Coordinator  
(404) 321-6111 ext. 4652  
akholst@gaeip.org



**Sasha Harb, MPH**  
Candidemia Coordinator  
(404) 321-6111 ext. 7941  
sschlic@gaeip.org



**Zirka Smith, MPH**  
CDI Coordinator  
(404) 321-6111 ext. 2256  
ztsmith@gaeip.org



**Chris Bower, MPH**  
MuGSI/CRE Coordinator  
(404) 321-6111 ext. 4087  
cbower@gaeip.org

# Emerging Infections Program GEORGIA

## MSA Surveillance Staff and Contact Information

Spring 2015



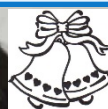
**Lewis Perry, RN, MPH**  
Surveillance Officer  
(404) 251-8727  
lperry@gaeip.org



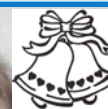
**Andrew Revis, MPH**  
Surveillance Officer  
(404) 321-6111 ext. 4596  
arevis@gaeip.org



**Catherine Espinosa, MPH**  
Surveillance Officer  
(404) 321-6111 ext. 4061  
cespinosa@gaeip.org



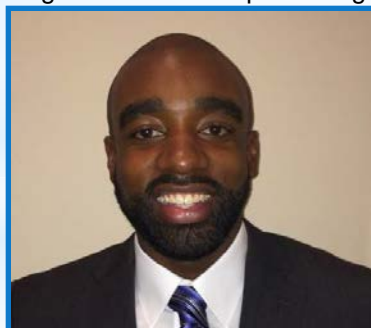
**Megan Riley, MPH**  
Surveillance Officer  
(404) 321-6111 ext. 3704  
mriley@gaeip.org



**Michelle Wiles, RN, MPH**  
Surveillance Officer  
(404) 321-6111 ext. 4596  
mwiles@gaeip.org



**Shelby Hale, MPH**  
Surveillance Officer  
(404) 321-6111  
ext. 6017  
shale@gaeip.org



**Shelton Bartley, MPH**  
Surveillance Officer  
(404) 321-6111  
ext. 3704  
sbartley@gaeip.org



**Randy Van Dolson,  
RN, MPH (cand.)**  
Surveillance Officer  
(404) 321-6111  
ext. 6017  
randyv@gaeip.org



**Niam Hamilton Reddy**



**Lilly Morgan, BS**  
EIP Laboratory Assistant



**Taylor Chambers,  
MPH (cand.)**  
Research Interviewer  
tchambers@gaeip.org



**Nicki Keusch,  
MPH (cand.)**  
Research Interviewer  
nkeusch@gaeip.org



**Hilary Harris,  
MPH (cand.)**  
Research Interviewer  
hharris@gaeip.org

# GOA Staff and Contact Information Spring 2015



# Emerging Infections Program GEORGIA



**Cherie Drenzek,  
DVM, MS**  
State  
Epidemiologist  
(404) 657-2609



**Melissa Tobin-D'Angelo,  
MD, MPH**  
EIP Principal Investigator  
Medical Epidemiologist  
(404) 657-1105

Melissa.Tobin-Dangelo  
@dph.ga.gov



**Jessica Tuttle,  
MD**  
Medical  
Epidemiologist  
(404) 657-2553

Jessica.Tuttle  
@dph.ga.gov



**Nadine Oosmanally, MSPH**  
FoodNet Coordinator  
(404) 657-6445

Nadine.Oosmanally@dph.ga.gov



**Ashley Moore, MPH**  
ABCs Surveillance Coordinator  
(404) 657-2643

Ashley.moore@dph.ga.gov



**Audrey Kunkes, MPH**  
Influenza Coordinator  
(404) 463-4625

Audrey.Kunkes@dph.ga.gov



**Jeanne Negley, MBA**  
HAI/NHSN Surveillance Coordinator  
(404) 657-2593

Jeanne.Negley@dph.ga.gov



**Lauren Lorentzson,  
MPH**  
HAI Epidemiologist  
(404) 463-8919

Lauren.Lorentzson  
@dph.ga.gov



**Siri Wilson, MPH**  
FoodNet  
Epidemiologist  
(404) 463-4623

Siri.Wilson  
@dph.ga.gov



**Ebony Thomas, MPH**  
Vaccine-Preventable  
Disease Epidemiologist  
(404) 463-0781

Ebony.Thomas  
@dph.ga.gov

# GOA Staff and Contact Information Spring 2015



# Emerging Infections Program GEORGIA

Not Pictured

**Hope Dishman, MPH**  
Outbreak Coordinator  
(404) 463-4626  
Hope.Dishman@dph.ga.gov



**Tonya Johnson, BS**  
Surveillance Officer  
404-657-7309  
Tonya.Johnson@dph.ga.gov



**Charletta Cloud, BS**  
Surveillance Officer  
(404) 463-2742  
Charletta.Cloud@dph.ga.gov

**Loretta Foster**  
GA DPH Epidemiology Intern  
(404) 463-4622  
Loretta.Foster@dph.ga.gov

**Fabio Machado**  
GA DPH Epidemiology Intern  
(404) 404-657-2643  
Fabio.Machado@dph.ga.gov

**Pradhita Maddireddy**  
GA DPH Epidemiology Intern  
(404) 463-0120  
Pradhita Maddireddy@dph.ga.gov



**Casey Owens**  
GA DPH Epidemiology Intern  
(404) 657-2559  
Casey.Owens@dph.ga.gov

**Sasha Smith**  
Professional Healthcare Worker  
(404) 463-4622  
Sasha.Smith@dph.ga.gov

**Sarah Witter**  
GA DPH Epidemiology Intern  
(404) 463-0120  
Sarah.Witter@dph.ga.gov



# Collaborators at CDC

- Bob Pinner
- Anne Schuchat
- Cyndy Whitney
- Matt Moore
- Chris Van Beneden
- Gayle Langley
- Lyn Finelli
- Scott Fridkin
- Tamara Pillishvili
- Nancy Messonnier
- Olga Henao
- Shawn Lockhart
- Jean Patel
- Bernie Beall
- Amanda Cohn
- Brandi Limbago
- Leonard Mayer
- Susan Gantt (Connor)
- Tom Chiller
- Shelly Magill
- Isaac See
- Shawn Lockhart
- Sandra Chaves
- Fernanda Lessa

And many, many more.....

# THANK YOU!



From the EIP Team to all of you for your many contributions to the Georgia EIP.

We could not do it without you.

