

Epigram

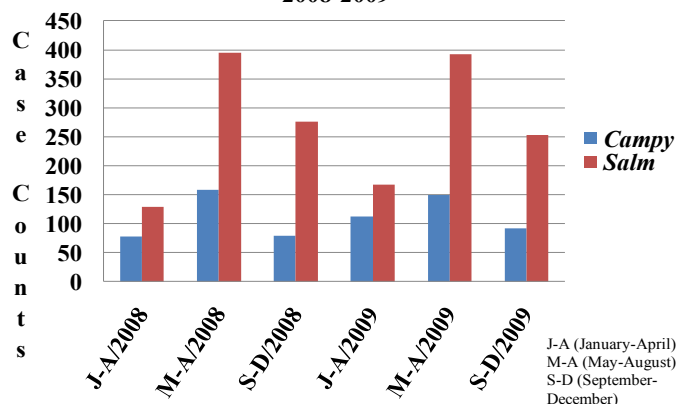
The Newsletter of the Georgia Emerging Infections Program

Summer 2010

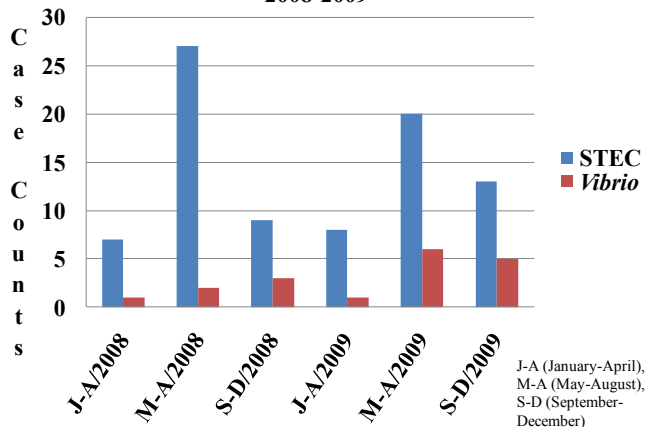
Foodborne Disease Over the Summer

Every year, Georgia sees an increase in *Salmonella*, *Campylobacter*, *E. coli* O157 and other shiga-toxin producing *E. coli*, and *Vibrio* in the summer months. Public health routinely interviews these cases, so it is essential to get reports as quickly as possible. Isolates for all of these organisms should be sent to the Georgia Public Health Lab (GPHL) and the Centers for Disease Control and Prevention (CDC) for confirmation and subtyping, allowing public health officials to identify and investigate potential outbreaks based on serotype and pulsed field gel electrophoresis. Timely submission of enteric isolates and reports helped identify 8 outbreaks in 2009. Please remember to submit isolates for all FoodNet pathogens (see page 4 for list).

Campylobacter & Salmonella Case Counts by Yearly Quarters 2008-2009



STEC & Vibrio Case Counts by Yearly Quarters 2008-2009



Guillain-Barré Syndrome Surveillance Summary

To monitor the safety of the 2009 H1N1 influenza vaccine, active surveillance for all incident cases of Guillain-Barré Syndrome in Health district 3 (HD3) were identified from October 1, 2009 through May 31, 2010. As of June 11, 2010, 32 cases of Guillain-Barré Syndrome that met CDC case criteria were identified in HD3. Cases were detected through regular communication with a network of neurologists, the SENDSS state reporting system, and from review of hospital discharge diagnosis code of 357.0 provided by hospitals. CDC used the data from Georgia along with data from sites around the country to publish a preliminary report in MMWR (<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm59e0602a1.htm>).

Case identification was completed May 31, 2010. Thanks to hospitals and physicians for their prompt response to this important

Severe Group A Streptococcus

Six cases of Necrotizing Fasciitis (NF) associated with Group A Streptococcal (GAS) infections have been reported in the 20-county Atlanta Metropolitan Statistical Area (MSA) since January 2010. A total of only four cases were reported in calendar year 2009. The Georgia Division of Public Health is investigating this apparent increase in NF cases. The CDC will conduct *emm* typing on all isolates to determine if they are genetically related and potentially epidemiologically related. It is very important that all isolates of invasive GAS and tissue isolates associated with NF be sent to the EIP. Please let us know immediately about any NF cases in your facilities.

PCV13 Vaccine Effectiveness

A new 13-valent pneumococcal conjugate vaccine (PCV13) was licensed by the FDA in February 2010. The GA Emerging Infections Program is collaborating with other national Emerging Infection Program sites, Epidemiology and Laboratory Capacity Sites, and the Center for Disease Control and Prevention to evaluate the effectiveness of PCV13 against invasive pneumococcal disease (IPD) among children aged 2-59 months in a matched case-control study. The evaluation began with cases of IPD occurring as of May 1, 2010. To be eligible for the study, an *S. pneumoniae* isolate from the IPD case must be available for serotyping at CDC. Please be sure to submit all isolates of invasive *S. pneumoniae* to the EIP for further characterization.

2010 Georgia EIP Conference

On March 31st, 2010, the Georgia Emerging Infections Program (GAEIP) held its 7th annual conference. The conference was a full day of discussions and panels which included topics such as: Influenza, Candidemia, Antibiotic Utilization, *Legionella*, UTI's, Healthcare Associated Infections (HAI), Clinical Microbiology, and Disease Outbreaks.

We had a successful turnout with 221 attendees and an incredible array of speakers and panelists. We would like to thank all of our attendees and speakers for their participation in our conference! We would also like to recognize Suzanne Segler for her superb coordination and hard work that made this conference possible. Hope to see you all next year.

2010 Georgia EIP Conference Summaries

Influenza Update-Tony Fiore Anthony (Tony) Fiore, MD, MPH

Influenza pandemic illness severity was similar to seasonal illness overall, but younger age groups were disproportionately affected. The 2009 H1N1 vaccine was widely available and immunogenic, and there were no vaccine safety issues reported after ~60 million doses were distributed. Some upcoming challenges include: declining interest in vaccination against pandemic influenza, reappear-ance of seasonal influenza viruses, difficulty in determining vaccine effectiveness due to low coverage, possibility of another pan-demic wave, and expansion of influenza vaccine to areas of the world that do not carry out influenza vaccinations.

There's a Fungus Among Us: Invasive Candidiasis-Benjamin J. Park, MD & Shawn Lockhart, PhD

Candida causes a wide array of infections in humans from superficial cutaneous infections to deeply invasive, disseminated disease. Population-based surveillance for *Candida* bloodstream infections were performed in 1992-1993 and again in 2008-2009 in two EIP sites: 8-county Metro Atlanta and Baltimore City and County, Maryland. Preliminary data from this surveillance show that the inci-dence of invasive *Candida* has increased in both sites. The species distribution in the Atlanta site has changed during the 2 time peri-ods with an increase in the proportion of *C. glabrata*.

Antibiotic Utilization and Emerging Infections-Jay Varkey, MD

The use of Antimicrobial Management Programs can potentially reduce inappropriate antibiotic usage in hospitals. This type of en-deavor is multidisciplinary in which clinical microbiologists, pharmacists, infectious diseases physicians and staff all play a role in the reduction of inappropriate usage of antibiotics. A regular review of antimicrobial appropriateness and preauthorization of certain antibiotics could benefit hospitals in reducing antibiotic resistance.

Not a Problem Here...(Legionella)-Susan Ray, MD

In late 2008 and early 2009, Grady Hospital experienced an outbreak of Legionnaires' disease, a bacterial disease associated with pneumonia. The *Legionella* outbreak was determined to be attributed to plumbing changes and the connection of older galvanized pipes with newer plumbing, which disturbed the hot water recirculation. Consequently, a whole new water system was necessary to alleviate this problem. New hot water tanks were installed and a water system monitoring plan was implemented.

Advances in Catheter-Associated Urinary Tract Infection Prevention-Carolyn Gould, M.D., M.S.C.R.

Catheter Associated Urinary Tract Infections (CAUTI) are the most common type of hospital associated infections, and an estimated 13,000 cases contribute to deaths annually. The CDC site for Healthcare Infection Control Practices Advisory Committee created guidelines to help prevent CAUTIs. These guidelines can be found at: <http://www.cdc.gov/hicpac/pdf/CAUTI/CAUTIguideline2009final.pdf>. Incorporating these guidelines with bacteriuria reducing catheters could benefit hospitals in their reduction of CAUTIs.

Outbreaks in Georgia 2009-Cherie Drenzek, DVM

In 2009, Georgia had 120 confirmed outbreaks. The Columbus district reported the most with 37 confirmed outbreaks. There were 4 large multi-state outbreaks involving Georgia residents. Eleven outbreaks were considered foodborne, which was a decrease from the 23 foodborne outbreaks in 2008. The most common etiologies were influenza (51%), Norovirus (29%), and Salmonella (5%).

To view presentations visit: <http://health.state.ga.us/eip>

Upcoming Events

October 6-8th, 2010

(Pre-Conference October 5th, 2010)

29th Annual (GIPN) Georgia Infection Pre-vention Network Educational Conference

Sea Palms Resort

St. Simons, Island GA

www.gipn.net

New Staff

Andrew Revis, MPH (candidate)

Andrew graduated from the University of Illinois in 2009 with a B.S. in Molecular and Cellular Biology and Chemistry. He currently attends Emory University's Rollins School of Public Health where he is pursuing an MPH in Epidemiology with a concentration in Infectious Disease.

Loida Erhard, MPH (candidate)

Loida graduated from the University of Washington in 2009 with a B.S. in Biology. She currently attends Emory University's Rollins School of Public Health where she is pursuing an MPH in Global Health.

As always, we appreciate your assistance with EIP surveillance activities!

GA EIP Conference Summaries: HAI Lunch Panel

The HAI panelists discussed the National Healthcare Safety Network (NHSN) and its impact on Georgia facilities. NHSN is a CDC program used to report Healthcare associated illnesses. Information in NHSN is NOT identifiable at the facility or patient level. The EIP and GA Division of Public Health (GDPH) recommend that all facilities enroll in the NHSN. GA EIP/GDPH have created a user group in NHSN called G-SNUG that will allow both sites to help facilities with NHSN and HAI activities.

If you would like to join G-SNUG and receive the NHSN training Ebook please contact Nancy White.

Nancy White: nwhite@gaeip.org

NHSN website: <http://www.cdc.gov/nhsn/>

GA EIP Conference Summaries: Lab Lunch Panel

The Lab Lunch Panel discussed several topics suggested by lab personnel throughout the morning. The session was mediated by Dr. Robert Jerris. The panel experts included Dr. Eileen Burd, Dr. Roberta Carey, Dr. Ray Kaplin, Dr. Brandi Limbago, and Dr. Wayne Wang. The following topics were covered:

- ◆ Updates on Antibiotic Resistance Testing
- ◆ Group B *Streptococcus* Testing Practices and Guidelines Updates
- ◆ Acid Fast Bacteria Processing and PCR Confirmation
- ◆ *Chlostridium difficile* Testing
- ◆ Better STEC Submission to State Lab
- ◆ *Campylobacter* Testing– Use of Rapid Kits
- ◆ CAP Checklist Questions/Comments
- ◆ H1N1 Rapid Testing
- ◆ JCHO Mandates for Lab-based Reporting

Other Studies at the GA EIP

SCOSA: The objective of the Severe Community-Onset *Staphylococcus aureus* (SCOSA) surveillance project is to estimate the incidence of SCOSA infection in otherwise healthy persons 0-50 years of age. Patients evaluated for inclusion in this surveillance project include those with either methicillin-susceptible (MSSA) or methicillin-resistant (MRSA) *S. aureus* infections with cultures from blood, pleural fluid, bronchoalveolar lavage (BAL), sputum, or lung tissue. The patients require hospitalization, but without the previously established healthcare-associated risk factors for severe *S. aureus* infections such as hemodialysis, invasive device use, or concurrent or recent hospital stay. The surveillance area includes two acute care facilities (one urban and one suburban). Case-finding began retrospectively in September 2008. Surveillance and isolate collection from participating hospitals is ongoing. A total of 64 cases have been identified. Of those cases 52% had MSSA, 69% were males, and 12% died.

CDI: The EIP's community onset *Clostridium difficile* infections (CDI) surveillance system is off to a great start! So far there have been almost 3,000 *C. difficile* toxin positive test results entered for July 1, 2009 through January 31, 2010. Of those positive test results, 2,100 are incident cases. Medical charts of incident cases are being reviewed to further define them as community-onset or healthcare-associated. All *C. difficile* toxin positive test results from labs in the 8-county HD3 are being collected through daily, weekly, or monthly audits. In the near future, specimen submission from a subset of participating laboratories will begin.

Candidemia: As of June 7, 2010, 1151 cases of candidemia have been identified from hospital and reference laboratories in HD3. As overall rates have increased since the surveillance in 1992-1993, Atlanta has seen a decrease in rates in neonates and an increase in the 65+ age group. Thanks to laboratory efforts, 70% of reported isolates have been submitted to the EIP for further characterization at the CDC. Antifungal drug resistance overall remains uncommon, but reduced susceptibility is most common among *C. glabrata* isolates. *C. glabrata* isolates with elevated MIC values to the echinocandins are increasingly being seen. In April hospital lab-specific data was sent to each participating laboratory with species confirmation and antifungal susceptibility test results (AFST) of the particular isolates that lab had submitted through June 2009. More antibiogram data was distributed in August 2010. Candidemia surveillance and isolate collection are continuing in GA HD3.

GBS traceback: To identify reasons for false negative results from Group B *Streptococcal* (GBS) screening and other reasons for continued early-onset GBS cases, all 2008-2009 cases of early-onset GBS infections will be extensively reviewed through visits to maternal prenatal care provider offices, interviews with obstetricians, and collection of details about GBS screening tests from laboratories.

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EIP on the Web

ABCs Web Page

www.cdc.gov/ncidod/dbmd/abcs

FoodNet Web Page

www.cdc.gov/foodnet/

GA EIP Page

<http://health.state.ga.us/eip>

CDC Influenza Web Page

www.cdc.gov/flu/

Georgia Department of

Community Health

www.health.state.ga.us/

SENDSS disease reporting

<https://sendss.state.ga.us/sendss/login.screen>

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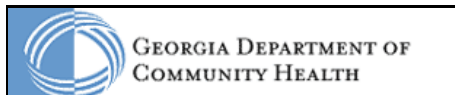
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The Georgia Emerging Infections Program is a collaboration between:



Be on the look out!!

The GA EIP conducts active surveillance for all the organisms listed below.
 Please be sure to continue to set aside these isolates for us!

CULTURE POSITIVE ORGANISMS FOR FOODNET

Campylobacter
Cryptosporidium
Cyclospora
E. coli 0157:H7
 (or any STEC)
Listeria
Salmonella
Shigella
Vibrio
Yersinia

From Any Body Site

EIP Case:
 Place isolate in EIP
 box OR Send
 isolate to GPHL

CULTURE POSITIVE ORGANISMS FOR ACTIVE BACTERIAL CORE (ABCs)

*Group A Streptococcus**
Group B Streptococcus
Haemophilus influenzae
Neisseria meningitidis
Streptococcus pneumoniae
 MRSA (SELECT LABS ONLY)

FROM STERILE SITE:

Blood
 CSF
 Bone
 Joint
 Pericardial fluid
 Peritoneal fluid
 Placenta
 or Amniotic fluid
 Pleural fluid
 Internal body site-
 (lymph node, brain, heart,
 liver, spleen, kidney, vitreous
 fluid, pancreas, ovary)

Candida

all species
 (SELECT LABS ONLY)

Blood only

EIP Case:
 Place
 isolate in
 EIP box

*FOR GAS ONLY: any site when accompanied by *necrotizing fasciitis* or *Streptococcal Toxic Shock Syndrome*