

Epigram

The Newsletter of the Georgia Emerging Infections Program

Summer 2007

2006-07 Hospitalized Influenza Surveillance Summary

The 2006-07 influenza season was Georgia EIP's second year of surveillance for adults hospitalized with influenza and our fourth year of surveillance for children. In addition to routine surveillance for all hospitalized influenza cases, an ongoing vaccine effectiveness study is being conducted for a subset of pediatric patients. In 2006-07, the eligible age range for this study was expanded to 6-59 months of age as the ACIP expanded influenza vaccination recommendations to include children in this age group.

During the past influenza season (Oct. 1, 2006 - April 20, 2007) 70 adult and 50 pediatric cases of laboratory-confirmed influenza in hospitalized patients who were residents of the 8 county Health District 3 (HD3) were identified. Four deaths were reported in the adult hospitalized influenza cases. Adult cases had a median age of 57.1 years. Thirty one (44.3%) were male, 58.6% were white, and 34.3% were black. Among the 50 identified pediatric cases, no deaths were reported. Pediatric cases had a median age of 4.1 years and 33 (66.0%) of the cases were male. Thirty one (62%) pediatric cases were black, 12 cases (24%) were white and the remaining 7 cases (14%) were Hispanic.

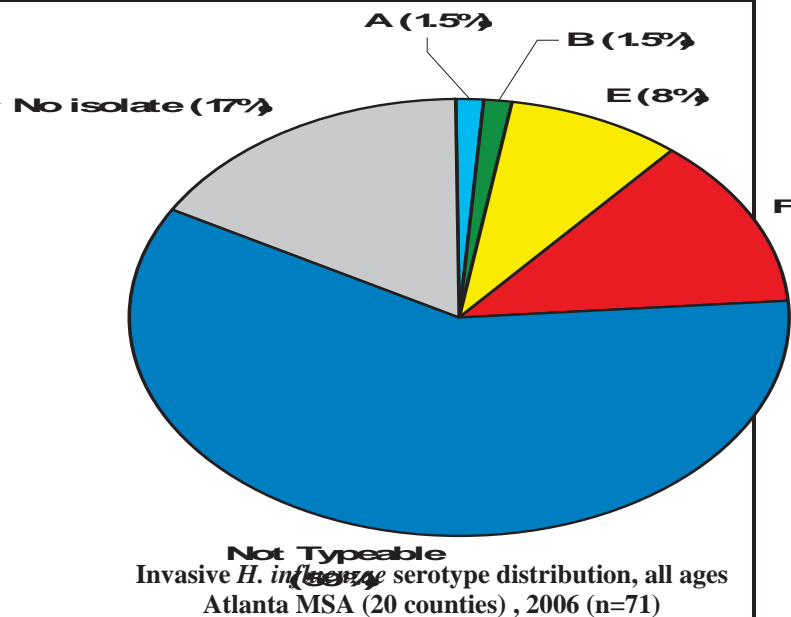
Twenty four pediatric cases were eligible to participate in the influenza vaccine effectiveness case-control study during the 2006-07 season. Sixteen cases agreed to participate and were interviewed. For these 16 cases, 56 controls have been enrolled to date. The number of controls varies from 2 to 7 controls per case. This study, along with the hospitalized influenza surveillance, will continue through the 2007-08 influenza season, which begins October 1, 2007. Thanks to all participating laboratories for their help in identifying and reporting positive influenza cases to the EIP.

ABCs Bug of the Quarter: *Haemophilus influenzae*

Before conjugate vaccines for *H. influenzae* serotype b (Hib) became available in 1988, this was the most common cause of bacterial meningitis in children between 2 months and 5 years in the U.S. Thanks to routine childhood vaccination, Hib is now rare. However, other serotypes and nontypable *H. influenzae* strains continue to cause significant invasive and noninvasive disease at the extremes of age.

Invasive *H. influenzae* infection is immediately notifiable to public health in Georgia. Surveillance for *H. influenzae* is important and useful in several ways. First, a rapid public health response is required when cases of Hib are identified. This may involve antibiotic prophylaxis for persons in the household, and sometimes a daycare center attended by the index case. Second, to justify the continued cost of immunization programs, surveillance for invasive disease is necessary to quantify program effectiveness. Third, disease trends may change over time, requiring prevention measures to keep up with the changes.

Surveillance for Hib requires that isolates are serotyped by public health. It is very important that every available invasive *H. influenzae* isolate be saved and submitted for testing. In 2006, 71 total cases of invasive *H. influenzae* were identified in the 20 county Atlanta Metropolitan Statistical Area (MSA), but isolates were not received for 12 (17%) of those cases (see chart). It is especially important to serotype isolates when disease occurs in young children. Across the entire state of Georgia in 2006, 20 cases of invasive *H. influenzae* disease were identified among children < 5 years of age, but only 8 isolates (40%) were serotyped. Please help us raise this percentage by saving and submitting all of your invasive *H. influenzae* isolates either to the EIP or directly to the Georgia Public Health Laboratory.



Recent EIP Publications

Perinatal Group B Streptococcal Disease After Universal Screening Recommendations -- United States, 2003--2005

MMWR 56(28); 701-5.

Available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5628a1.htm>

Herd immunity and pneumococcal conjugate vaccine: a quantitative model

Haber M, Barskey A, Baughman W, Barker L, Whitney CG, Orenstein W, and Stephens DS.

Vaccine 25(29); 5390-8.

Changing characteristics of invasive pneumococcal disease in Metropolitan Atlanta, Georgia, after introduction of a 7-valent pneumococcal conjugate vaccine

Albrich WC, Baughman W, Schmotzer B, and Farley MM.

Clin Infect Dis. 2007 Jun 15; 44(12):1569-76

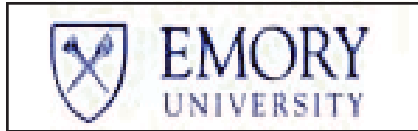
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The Georgia Emerging Infections Program is a collaboration between:



Be on the look out!!

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

Isolates from sterile sites:

- Group A *Streptococcus*
- Group B *Streptococcus*
- *Haemophilus influenzae*
- *Neisseria meningitidis*
- *Streptococcus pneumoniae*

Isolates from any site

(if not sent directly to state lab):

- *Campylobacter*
- *E. coli* O157:H7 & Shiga toxin-producing *E. coli*
- *Listeria monocytogenes*
- *Salmonella*
- *Yersinia*
- *Vibrio*
- *Shigella*

*In addition to these organisms we also conduct "paper" surveillance for *Cryptosporidium* and *Cyclospora*. We are not currently collecting these isolates, but do review laboratory and/or infection control records for these organisms.

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Don't forget about our website - [http:// health.state.ga.us/eip](http://health.state.ga.us/eip)