Presentation Type:
Poster Presentation

Geographic Evaluation of Georgia Vaccination Disparity Among Laboratory-Confirmed Influenza Cases in a Children's Hospital

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Background: Vaccination coverage among children aged ≤18 years in Georgia remains one of the lowest in the nation with 39.3% coverage. During the 2018–2019 influenza season, the CDC reported 142 pediatric deaths, 3 of which occurred in Georgia. In a time of increasing complexity of immunization schedules, increase severity with a high level of flu-related deaths and hospitalization, it is important to understand localized factors that contribute to decrease influenza immunization and increased flu-related hospital visits among children. **Methods:** Data include electronic medical record chart review of 5,827 laboratory confirmed Children's Healthcare of Atlanta visitor cases from October 1, 2016, to September 24, 2019. System-wide county level data included 3 pediatric hospitals, 5 primary care facilities, 8 urgent care facilities, and 2 outpatient clinics. Characteristics associated with disparities in vaccine were explored using univariate and multiple regressions analysis. Of those children with a primary care physician (PCP), 30% had flu vaccinations, whereas only 16.5% of those without a PCP had been vaccinated ($P \leq .00001$). There was a positive relationship between increased county influenza rate and percentage of children in county who were preschoolers <5 years old ($r = 0.93$; $P \leq .05$). Moreover, 78% of children who received the flu vaccine ≤ 2 weeks prior to a confirmed flu diagnosis got the flu during peak flu periods ($r = 0.29$; $P \leq .05$). Predictors of increased flu rate per 1,000 children were associated with flu vaccines given ≤2 weeks before a lab confirmed flu diagnosis ($P \leq .02$). Children in counties that had a higher rate of flu during the peak period also had an overall higher rate of flu ($P \leq .005$). The higher the percentage of children who got flu during peak flu period, the lower the vaccination rate for the county ($P \leq .001$). The percentage of children ≤18 years old with no health insurance was associated with lower vaccination rates in the county ($P \leq .004$). There appears to be a positive relationship between receiving flu vaccine 2 weeks prior to lab-confirmed flu diagnosis and onset of illness during the peak flu periods. Missed opportunities to obtain a flu vaccine by a PCP were associated with increased flu-related hospital visits and lower vaccination rates. Results may support predischarge hospital vaccinations and the promotion of flu vaccination education. Pediatric research is needed to facilitate localized PCP vaccination or predischarge hospital vaccinations prior to peak flu periods when hospital-related flu visits increase.

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Getting to the Heart of the Matter: Epidemiology of Surgical Site Infections Following Open Heart Surgery in Children

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Background: Surgical site infections (SSIs) following open heart surgery involving cardiopulmonary bypass (CPB) among pediatric patients are healthcare-associated infections associated with significant morbidity and mortality. At a pediatric acute-care facility, an increase in SSI incidence prompted an epidemiologic review. We describe the incidence of cardiac SSIs at our hospital; we identified risk factors and areas of practice variation to inform improvement initiatives. **Methods:** SSI cases following CPB at our hospital have been identified through routine surveillance using NHSN definitions since January 2016. An increase in cases was noted in mid-2018, prompting a common cause analysis with stakeholders across the preoperative, intraoperative, and postoperative care continuum. Areas of practice variability were identified, and an epidemiologic review was performed to determine risk

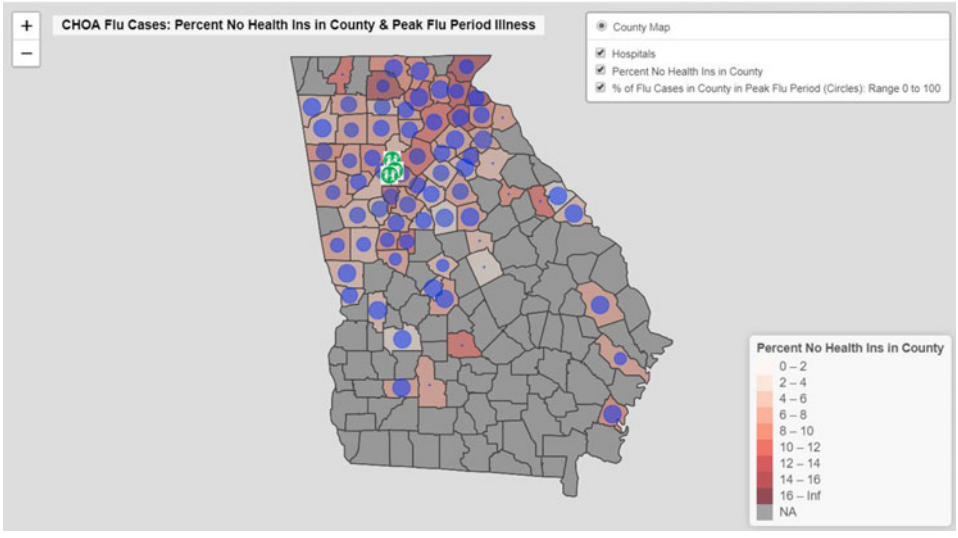

Fig. 1.