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Georgia Southern University

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Georgia Southern Conducts a Preliminary Examination of Blood Lead Levels in Rural Georgia

January 3, 2017



Rural areas are often viewed as lower risk for lead poisoning with toxic exposures seriously impacting development of the brain and central nervous system. This study examined the prevalence of elevated blood lead levels from children <6 years of age in rural Ben Hill County, GA.

Lead surveillance data from the Georgia Department of Public Health (DPH) were analyzed using SAS®v-9.3 to calculate the prevalence of elevated blood lead levels ($\geq 5\mu\text{g/dL}$) among those children in Ben Hill County who had been tested for lead; the results were compared to Georgia and national data.

Preliminary analysis of 2010-2015 screening data indicated that 8.73% (95%- CI: 7.4%-10.1%) of children tested for lead exceeded the Centers for Disease Control reference level ($\geq 5\mu\text{g/dL}$) and is approximately 3.5 and 2.4 times higher, respectively, when compared to the National (2.5%) and State (3.64%) percentages of children exposed to lead at or above the reference level. In addition, this analysis demonstrated low overall testing rates for children <6 years of age, impacting the estimate of population prevalence for childhood lead poisoning in Ben Hill County.

While these data are preliminary and more analysis is planned to ascertain the full breadth, source, and scope of the problem, it highlights lead poisoning risks rural communities face that are often overlooked in population-based risk analysis and research on lead exposure in children.

“A preliminary examination of elevated blood lead levels in a rural Georgia county,” was published in the Journal of the Georgia Public Health Association.

Dr. Chris Rustin, Assistant Professor of Environmental Health Sciences at the Jiann-Ping Hsu College of Public Health Georgia Southern University was the lead author.

Georgia Southern Examines Informatics as a Strategic Priority

January 3, 2017



Health Information plays a pivotal role in informing and supporting many local health department (LHD) functions and services. The purpose of the case study was to explore how a medium-sized LHD using best practices in informatics could implement and use informatics to improve the practice of public health.

The 2015 Informatics capacity and Needs Assessment study was conducted as the Principal Investigator by Dr. Gulzar Shah, Associate Dean for Research at the Jiann-Ping Hsu College of Public Health, on behalf of the National Association of County and City Health Officials (NACCHO). This study describes the informatics activities performed by and for local health departments. Along with the quantitative survey of a representative sample of LHDs across the country, 3 qualitative case studies of LHDs were conducted to better understand how LHDs implemented/used these systems. The case studies aimed to explore factors, not currently available in quantitative data that may be associated with

LHD adoption and use of informatics.

The case study shows examples of innovation in informatics capacity building and use by a medium-sized LHD. The description of factors associated with challenges and successes may provide general guidance for other LHDs with similar population health issues (eg, OTP) that currently lack information systems to provide program and services coordination. Our study may also provide direction regarding the payoffs of strong relationships and collaboration among IS and other program areas.

[“Informatics as a Strategic Priority and Collaborative Processes to Build a Smarter, Forward-Looking Health Department,”](#) was published in the Journal of Public Health Management and Practice.

Dr. Kay Lovelace, Associate Professor at UNC Greensboro, was the lead author for this case study. Dr. Gulzar Shah, Associate Dean of Research at the Jiann-Ping Hsu College of Public Health Georgia Southern University was the co-author.

Georgia Southern Partners to Assess Risk Factors for Public Swimming Pools

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The Georgia Department of Public Health (DPH) is mandated to ensure that public swimming pools are safe for swimmers. This mandate is carried out by the DPH and local environmental health professionals through regulations and inspections. In 2015, legislation was introduced proposing to reduce the authority of the DPH to inspect certain pool types (apartments, subdivision, condominiums) and thus reduce regulatory protections in place for swimmers. To ensure that the DPH had current information on the risks associated with pools, the EH team, with assistance from a graduate student, analyzed inspection data to evaluate risk factors associated with these pool types and summarized drownings and waterborne disease outbreaks (WBDOs).

Pool inspection data (n=4,441 pools) for 2014 were retrieved from the Environmental Health Information System (EHIS) of the DPH. Data from the 2010 Census and epidemiological data on drownings and water-borne disease outbreaks (WBDOs) were also evaluated. Data were stratified by public health district, type/number of pools and analyzed for selected violations of health risk factors (pH, barriers, disinfectant residual). Drownings and WBDOs were described and summarized.

Approximately 55% of inspected pools were for apartments, condominiums, and subdivisions. These pool types were consistently cited by inspectors for the selected risk factors and ranked in the top five for these violations. In 2013, children aged 1-17 had the highest percentage (30%) of deaths from drowning. In 2001-2014, there were 28 WBDOs, with 39% occurring at public pool venues.

Data from this research provided information on risks associated with pools and supported the importance of inspection programs for public swimming pools. The data were used to inform policy makers on the risks associated with the pool venues under legislative review. These data, combined with other risk factor information, were utilized by the DPH to inform training needs and to reinforce public health messaging on protecting swimmer's health.

[“An assessment of data related to inspections of risk factors for public swimming pools,”](#) was published in the Journal of the Georgia Public Health Association.

Dr. Chris Rustin, Assistant Professor of Environmental Health Sciences at the Jiann-Ping Hsu College of Public Health Georgia Southern University was a mentoring co-author.