ELC funds helped in strengthening Infectious Diseases and Outbreaks Division's epidemiology workforce

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CATEGORY: **Epidemiology and Laboratory Capacity (ELC)**   CATEGORY: **Public Health Data Science Workforce**

The Alabama Department of Public Health uses ELC funding to build epidemiologic capacity by supporting staffing, training, and software licenses. This allows the department to ensure surveillance data are analyzed and disseminated to inform appropriate disease prevention activities.

The "What"

The Alabama Department of Public Health (ADPH) Infectious diseases and Outbreaks (ID&O) Division conducts surveillance for more than eighty-five (85) nationally notifiable conditions, in addition to investigation of outbreaks, healthcare associated infections, and other emerging infectious diseases of public health concern. It is crucial for ID&O to maintain sufficient epidemiology workforce capacity to fulfill these critical public health responsibilities. However, ADPH receives a
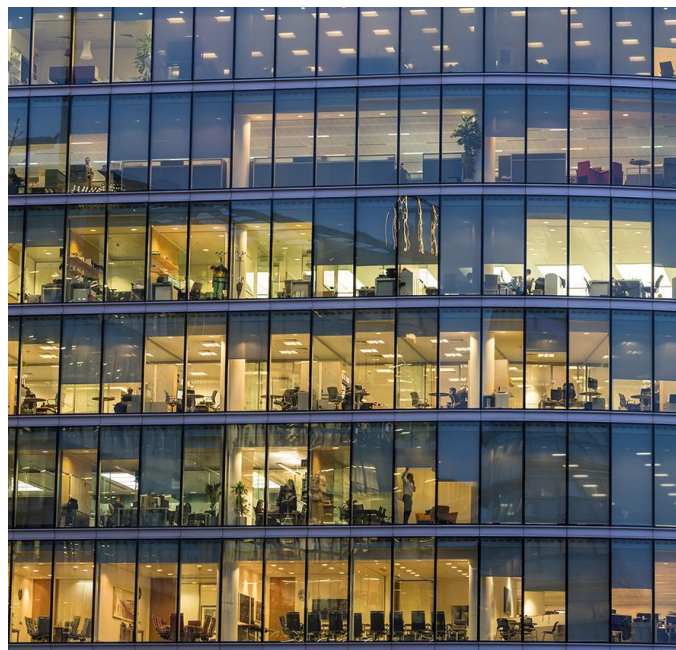
very small portion of state funds to support the epidemiology staff. A total of twenty-eight (28) epidemiologists work for ADPH at varying levels of seniority, and most of them are supported by federal funds. Nine (9) of these epidemiologists are dedicated to ID&O and 7.5 FTEs are supported through Epidemiology and Laboratory for the Prevention and Control of Emerging Infectious Diseases (ELC) funds to accomplish surveillance goals.

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Continued opportunities to build ADPH epidemiologists' skills allows them to quickly learn and use advanced data analysis and visualization technologies such as SAS, Tableau, ArcGIS.

At the beginning of COVID-19 pandemic when laboratory resources were limited, surveillance instruments developed by ID&O epidemiologists helped in prioritizing potential cases for testing. COVID-19 data analyzed and disseminated by ID&O epidemiologists was used for public health action such as testing and masking decisions and promoting vaccinations. Analytical evidence provided by epidemiologists has helped in identifying potential causes of some outbreaks and implementing remediation measures. For example, a resort in Alabama replaced nearly 400 hot tubs after they were identified as a potential risk factor for Legionellosis among guests.

ID&O epidemiologists also serve as subject matter experts and provide consultation to internal (e.g., environmental staff, laboratories) and external stakeholders (e.g., nursing homes, hospitals). ID&O has built strong collaborations with major academic institutions of Alabama through surveillance activities, data sharing, and data dissemination done by the epidemiologists. ID&O epidemiologists bring a wealth of knowledge and innovation to ADPH through their participation in local, national, and international meetings.

The "So What"

Although there are three (3) vacancies in ID&O, having nine (9) dedicated epidemiologists has been instrumental in achieving the following goals – early identification of cases by enabling electronic reporting methods, such as REDCap instruments; optimizing use of public health resources, such as prioritizing testing; and timely dissemination of control measures for disease prevention and control, such as automated messages for patient monitoring and control measures.

The "Now What"

Continued opportunities to build ADPH epidemiologists' skills allows them to quickly learn and use advanced data analysis and visualization technologies such as SAS, Tableau, ArcGIS. ID&O uses ELC funds to purchase licenses for these programs. These program licenses are made available for all ADPH epidemiologists and are instrumental in building capacity for the entire department.

Key contributors to this project include Ramandeep Kaur, Kelly M. Stevens, and Sherri L. Davidson, all with Alabama Department of Public Health