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Practicum Site:

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Descriptive analysis of hospitalized confirmed COVID-19 cases, collected by the Emerging Infections Program

Purpose: As of October 27th, 2020, the number of confirmed COVID-19 infections in Tennessee (TN) has reached 251,774 and the confirmed COVID-19 deaths has reached 3,207. During the practicum held at the Emerging Infections Program (EIP) at Vanderbilt University Medical Center, one primary project examined the hospitalized laboratory confirmed cases of COVID-19 across 20 counties in TN to produce a descriptive analytical report. The Emerging Infections Program (EIP) is an active surveillance network, led by the Centers for Disease Control and Prevention (CDC) in collaboration with state health departments and academic universities, to evaluate the impact of emerging infections on communities and assess interventions for prevention and control.

Methodology: The EIP, in partnership with the CDC and Tennessee Department of Health captures the data through the active surveillance of laboratory-confirmed COVID-19 related hospitalizations in children and adults. Patient data is then exported from the REDCap database and analyzed on STATA statistical software to produce descriptive reports.

Findings: Analysis of the 2,554 records from the EIP REDCap database, demonstrated that COVID-19 affected Davidson county the greatest, with the highest cases, followed by Sumner county. The mean age of hospitalized confirmed cases is 57.27 and no differences were found across gender. In terms of race, the majority of our cases were white (50.8%). Additional factors were also examined including Intensive Care Unit (ICU) stay, medications provided during hospitalization, pre-existing medical conditions and status at discharge.

Conclusion: Similar to other states, TN has been heavily impacted by the COVID-19 pandemic. This practicum developed a descriptive analysis paper that will help summarize the findings from the EIP program which can be used to help inform providers and communities about the risks and outcomes experienced by individuals in TN.