Assessing Uniformity among State-based Infectious Disease Reporting Systems

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The National Notifiable Disease Surveillance System (NNDSS) is essential for infectious disease prevention and control. NNDSS has two major components, one that is based on clinical symptoms and the other based on laboratory information. The laboratory component is often underappreciated, despite the fact that the information generated by laboratories is more accurate and precise. The lack of standardized guidelines for laboratory-based surveillance detracts from the overall effectiveness of the national disease surveillance system. Each state has laws mandating that laboratories report cases of specific diseases. In turn, the Centers for Disease Control and Prevention (CDC) requests voluntary reporting to the CDC and this state-provided information is used to monitor disease incidence and establish national response strategies. Consistent and uniform testing policies and practices among laboratories can have a direct impact on the reliability of surveillance data. The lack of laboratory standards across state jurisdictions could have an adverse impact on the overall effectiveness of disease control and prevention initiatives. Our review of a representative sampling of state laboratory protocols for reportable diseases was compared to the CDC's diagnostic testing recommendations for specific infectious agents. This representative sampling of state protocols was chosen based on state population and availability of state laboratory reporting regulations. The systematic comparison of state laboratory tests recommended for the diagnosis of reportable disease agents revealed inconsistencies in state laboratory reporting standards in comparison to the CDC's recommendations. There were several differences identified in our representative state population. Renewed efforts toward standardized laboratory-based surveillance are needed to more effectively prevent and control infectious disease outbreaks nationwide. The adoption of strategies that would bring states into compliance with national standards for laboratory methods used in surveillance would benefit public health.