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Happy Holidays to all our readers, reviewers and authors; and welcome to the last issue of OJPHI in 2015. I am happy to announce that this is the 7th issue since we started publication in 2009. Congratulations to all of you for achieving this milestone of success.

This issue contains 5 original articles covering various topics in the application of data sciences to public health practice. These range from development of data visualization platforms to facilitate health workforce planning; the development of visualization methods for utilizing incomplete data for surveillance; development of agent-based model to explore the prevalence of gonococcal infections among those who adhere to the CDC guidelines for the use of pre-exposure prophylactic for the prevention of HIV infections in high risk populations; description of a methodology for facilitating inter-disciplinary collaboration for the advancement of global public health surveillance; and an examination of the use of clinical decision support systems within immunization information systems.

Health workforce planning is critical to successful implementation of health policy. Local health officials typically collect data required to plan and deliver health care services within their jurisdictions and have limited access to what happens in other localities. These fragmented local health data contribute to inefficient planning at both local and state levels. Fortunately the Affordable Care Act offers incentives for data sharing and collaboration among stakeholders. In the paper titled "Data Lakes and Data Visualization: An Approach to Addressing the Many Challenges of Health Workforce Planning" Denise et. al developed data visualization platforms to facilitate state-wide health workforce planning in Mississippi.

Public health practitioners quite often must rely on clinical health data for real-time surveillance. The utility of the surveillance models depends on the quality of the data used. Clinical data from health care encounters are typically aggregated into data sets and sent to the surveillance system

at periodic time intervals, leading to lags in the availability of the data for surveillance purposes. To be useful for real-time surveillance the data must be timely, accurate and complete. However, if they have to use incomplete data for surveillance it is necessary to understand the structure of the incompleteness. The two options available to public health practitioners are to wait until sufficient time has elapsed to ensure data completeness or develop tools for using incomplete data. To date, practitioners have developed few methods for utilizing incomplete data in surveillance. In a paper titled "Visualizing the quality of partially accruing data for use in decision making" the authors demonstrate that in order to avoid biased conclusions one must account for accrual lag in partially accruing data.

The first comprehensive guidelines for the use of a pre-exposure prophylactic for the prevention of HIV infection in high risk populations was recently published by The Centers for Disease Control and Prevention. The guidelines include a daily regimen of the pre-exposure prophylactic as well as condom usage during sexual activity. The fear within the medical community is that those who adhere to the pre-exposure prophylactic may forgo the use of condoms during sexual activities, thereby exposing them to the risk of other sexually transmitted diseases. In a paper titled "Agent-Based Computational Model of the Prevalence of Gonococcal Infections after the Implementation of HIV Pre-Exposure Prophylaxis Guidelines" Escobar, et. al., demonstrate that such attitudes of aversion are unfounded.

The global disease surveillance community lacks consensus on preferred technical methods for monitoring public health data. The existence of universally acceptable surveillance methodologies can provide benefits in terms of anomaly detection, transmission tracking and risk mapping, among others. In a paper titled "Cross-Disciplinary Consultancy to Bridge Public Health Technical Needs and Analytic Developers: Asyndromic Surveillance Use Case" Faigen Z., Deyneka L., et al. describe a methodology of enabling inter-disciplinary and cross-disciplinary collaboration for the advancement of public health surveillance.

Immunization Information Systems (IIS) contain immunization data across various providers over time and offer comprehensive vaccination histories. The IIS also contain clinical decision support systems for immunizations (CDSi). The CDSi facilitate bi-directional communications between the immunization information systems and certified electronic health records. In a paper titled "Characterizing the Access of Clinical Decision Support Offered by Immunization Information in Minnesota" Rajamani et. al., examine the use of clinical decision support system within the Minnesota Immunization Information System. Increased adoption of certified electronic health records required by Stage 3 Meaningful Use will promote the utilization of clinical decision support systems for immunization.