The Influenza Incidence Surveillance Project: establishing population-based surveillance in the outpatient setting to monitor for influenza-like illness and associated respiratory viruses

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Background

Conducting population-based surveillance for outpatient influenza in the United States is challenging for many reasons, including the rapid spread of influenza and other respiratory viruses, the lack of laboratory data on respiratory viruses, and the difficulty of defining and detecting cases.

The Influenza Incidence Surveillance Project was designed to address some of these challenges by using electronic health records (EHRs) to collect data on the number of patients with influenza-like illness (ILI) and respiratory virus detections among patients with ILI. The project was conducted in 11 EHR sites across the United States in the 2010-2013 surveillance seasons.

Methods

In 2010, through collaboration between the Centers for Disease Control and Prevention (CDC) and the Council of State and Territorial Epidemiologists (CSTE), applications were solicited from health departments for the surveillance program. Participating sites submitted respiratory virus detections among patients with ILI and determined the incidence of respiratory viruses associated with ILI.

Results

In 2010, 15 sites were selected from CDC and CSTE; in 2011, 14 sites were selected; in 2012, 8 sites were selected; and in 2013, 7 sites were selected.

The rate of ILI in 2011 was low (13/1000 persons) while the average across the other three seasons was 25/1000 persons. Detections of respiratory viruses varied greatly by year, being 21, 7, 2, and 10/1000 population in 2009, 2010, 2011, and 2012 seasons, respectively.

Conclusion

Despite the high frequency of provider turnover during the summer months, provider reporting rates remained high.

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