Immunization delivery has long served as a model of the interface between health care and public health. The article by Stockwell et al in this issue of Pediatrics illustrates the power of this interface.

The authors studied the impact of a bidirectional exchange of pediatric immunization information between an electronic health record in a large urban ambulatory care network and a citywide immunization information system. They found that immunization up-to-date status increased in all age groups by 81.6% after implementation of the exchange. Importantly, the percent of overimmunized children decreased from 8.8% to 4.7% and was especially pronounced in adolescents (16.4% overimmunized preimplementation to 1.2% postimplementation). These findings have direct practical consequences, saving children from receiving unnecessary immunizations, preserving vaccine supplies, and allowing valuable clinical resources to be targeted to outreach children who are truly underimmunized.

Immunization delivery and policy have led the way in a number of important clinical and public health arenas over the past quarter century. First, after the measles epidemic in the early 1990s, there was a focus on avoiding missed opportunities, including AFIX (Assessment, Feedback, Incentive, and eXchange of information) and reminder-recall outreach for underimmunized children. These efforts drove US childhood immunization rates to new levels and served as a model for clinical quality improvement work in many areas, including asthma management in children and diabetes control in adults.

Second, immunization policy led to the creation of vaccine registries, first at individual health care delivery systems and practices and ultimately at the local, regional, and state levels. These registries serve both as a key clinical tool (when determining whether an individual child needs a particular vaccine) and important public health system (to monitor the vaccination status of populations). Today registries are used widely, for example, in asthma, diabetes, and children with complex medical conditions.

Third, immunization information systems have driven the national effort to develop robust research and safety surveillance systems, such as the Vaccine Safety Datalink (VSD), which uses large-scale distributed data networks to monitor vaccine safety across millions of Americans and has been used as a model for expanded medical safety surveillance in the Food and Drug Administration Sentinel network and the Patient Centered Outcomes Research Institute’s PCORnet.

The work of Stockwell et al demonstrates the ongoing impact of immunization delivery science and policy. Bidirectional information exchange between public health registries (immunization information systems) and clinical records (electronic health records) can have
clear and measurable effects. As the authors note, we need a continued focus on local, state, and federal policies to nurture such exchanges.

REFERENCES


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