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## IMMUNIZATION INFORMATION SYSTEMS (IIS)

### AAFP Position

The AAFP [supports](#) funding for data modernization, upgrades, and modifications to state immunization information systems (IIS). These resources are necessary for interoperability and bidirectional data exchange between IIS and community immunization providers to reduce the administrative burdens primary care physicians, pharmacists, and other health care providers face across the country.

### Immunization Information Systems

An essential tool to help prioritize coordination of care, [immunization information systems](#) (i.e., immunization registries) are confidential, population-based electronic databases that record provider-administered immunizations for a patient. IIS are state-based tools to facilitate the exchange of health data between physicians and other health care clinicians. The U.S. Centers for Disease Control and Prevention (CDC) [IIS Functional Standards](#) detail the operations, data quality, and technology needed by IIS to support immunization programs and providers of vaccinations. These standards are updated when needed to address changes in technology and best practices.

### Benefits and Challenges

In addition to providing physicians with complete and accurate medical records of their patients, IIS help facilitate coordination between clinicians and state and local health departments, keep track of complex and varied vaccination schedules, and help providers manage their vaccine inventories.<sup>1</sup> These systems also improve patient immunization rates, identify under-immunized children and adults, ensure that patients are only getting the vaccines needed, and identifies communities with lower vaccination rates, which in turn allows for an expedited response during an outbreak.<sup>2</sup>

IIS have helped respond to pandemics and natural disasters while reducing costs. After Hurricane Katrina devastated New Orleans in 2005, the Houston-Harris County Texas Immunization Registry was linked to the statewide Louisiana Immunization Network for Kids, which provided health officials with immediate access to the immunization records of children who were forced to evacuate the area. During this public health emergency, the registry held nearly 19,000 immunization records for children, [saving](#) \$3.04 million in vaccine-related and other administration fees and helping children enroll in different schools in other states. IIS were also helpful during the [H1N1 influenza pandemic](#) in 2009, helping states track the federal government's flu vaccine administration.

Adequately kept IIS with mandatory reporting are important now more than ever as the country works to vaccinate individuals against COVID-19. IIS face challenges as well, particularly during the COVID-19 pandemic, including struggles with onboarding new immunization providers, supporting interoperability, and enabling timely reporting of data to federal partners.<sup>3</sup> Modernization efforts are essential to ensure that immunizers can capture every administered dose of the COVID-19 vaccine, accurately match doses to individual patients, and report in real-time vaccine distribution and uptake by geographic area and special population, such as first responders or those with chronic health conditions.

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<sup>1</sup> American Immunization Registry Association. (2021). "The Value of IIS." Web.

<sup>2</sup> The Community Guide. (2021). "Vaccination Programs: Immunization Information Systems." Web.

<sup>3</sup> National Governors Association. (2021). "Modernizing Immunization Information Systems." Web.

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## Federal Efforts to Improve Immunization Information Systems

To be successful, IIS must be integrated with physicians' existing electronic health record (EHR) technology. Currently, state IIS serve as a patchwork of systems that can't communicate due to different standards and requirements for data reporting and state laws that dictate privacy and electronic data sharing.<sup>4</sup> Without interoperability, administrative burden on physicians is significant. Providers may vary in the level of information they report to the IIS, creating inconsistencies and incomplete medical records, especially if patients visit multiple providers or move across state lines.

Efforts to standardize IIS data collection across all states and systems and implementing a federally mandated, national IIS are potential solutions. The [Immunization Infrastructure Modernization Act of 2021](#) (H.R. 550) would authorize funding to improve and expand information sharing between state and federal governments and health care providers, expand enrollment and training of immunization providers, and enhance interoperability with other jurisdictions and EHR systems. The Academy and several others [endorsed](#) this legislation and its ability to reduce immunization gaps, empower providers, and integrate immunization data into modern-day health systems.

During the COVID-19 pandemic, the CDC [provided guidance](#) to states to improve and modernize their IIS using funding from the Coronavirus Response and Relief Supplemental Appropriations Act. Recommended activities included implementing email and text reminders, ensuring timely and accurate reporting, and providing consumer access to immunization records, and supporting data exchange.

## Characteristics of State Immunization Information Systems

Currently, IIS exist in 49 states, Washington, DC, three cities (New York City, Philadelphia, San Antonio), and several U.S. territories.<sup>5</sup> New Hampshire is in the [process](#) of rolling out its IIS. The Academy has helpful links to [information](#) for each state IIS. From 2017-2019, [95 percent](#) of children under age six were included in an IIS, an increase from 2016. State legislation surrounding IIS normally relates to age groups included, required reporting, information sharing, and consent.<sup>6</sup>

### *Mandated Reporting*

Nearly all states include all ages in their IIS, while Connecticut and Rhode Island include children only. Eighteen states (AL, CA, CO, HI, IL, KY, ME, MN, MO, MT, NE, NC, OH, PA, SD, UT, WA, WI) do not mandate reporting by health care entities to the state IIS. Of the 31 states and DC that mandate reporting to the IIS, 16 states and DC mandate it for a specified age group; either children, adolescents, and/or young adults.

### *Type of Consent*

State laws specify the type of consent required to report immunization data from both parents for their children and adults. For both parents of children and adults, Massachusetts requires mandatory consent with the option to opt out while Alabama requires implied consent with the option to opt out.

For parents of children, most states either require mandatory consent with no option to opt out (AK, DE, DC, MS, MO, NY, NC, ND, OR, RI, SC, VT, WV) or implicit consent with the option to opt out (AZ, AR, CA, CO, CT, FL, GA, HI, ID, IL, IN, IA, KY, LA, ME, MD, MI, MN, NE, NV, NJ, NM, OK, PA, SD, TN, UT, VA, WA, WI, WY). Four states (KS, MT, OH, TX), require explicit written or verbal consent from parents to report their children's immunizations to the state IIS. For adults, most states (CA, CO, FL, GA, HI, ID, IL, IN, IA, KY, LA, ME, MD, MI, MN, NE, NV, NM, ND, OK, OR, PA, SD, TN, UT, VA, WA, WI, WY) require implicit consent with the option to opt out and eight states require explicit written or verbal consent (AZ, AR, KS, MT, NJ, NY, OH, TX). Another eight states (AK, DE, MS, MO, NC, SC, VT, WV) require mandatory consent with no option to opt out.

*Updated: November 2021*

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<sup>4</sup> American Immunization Registry Association. (2021). "Why a National IIS Doesn't Exist." Web.

<sup>5</sup> Centers for Disease Control and Prevention. (2021). "Contacts for IIS Immunization Records." Web.

<sup>6</sup> Centers for Disease Control and Prevention. (2019). "IIS Policy and Legislation." Web.