



Use Case Scenario Summary

Use Case Scenario Name:	Immunizations
Use Case to Which Scenario Belongs	Health Information for State
Sponsor:	Michigan Department of Health and Human Services
Date:	March 20, 2019

Executive Summary

This brief section highlights the purpose for the use case and its value. The executive summary gives a description of the use case’s importance while highlighting expected positive impact.

“Vaccines have been hailed as one of the greatest public health achievements of the 20th Century. Nearly 20 million cases of infectious diseases and 42,000 deaths are averted every year in the United States through vaccination.”¹

Immunizations must be closely monitored to ensure they are administered correctly and in a timely fashion. Healthcare providers (including pharmacies) in Michigan are required to report immunizations to the state immunization information system (IIS) within 72 hours of administration.²

Purpose of Use Case: The Immunizations use case describes the requirements for healthcare providers to use MiHIN to automatically, electronically send immunization records through a state’s Department of Health (in Michigan the Department of Health and Human Services) to the state’s IIS.

¹ “Facts,” Every Child By Two, accessed on June 27, 2016, http://www.ecbt.org/index.php/facts_and_issues/

² In Michigan, these healthcare providers are required to report immunizations for every child born after December 31, 1993 and less than 20 years of age.

Overview

This overview goes into more details about the use case.

“Vaccines are the most economical health interventions known to man. For every \$1 spent on each of the eleven vaccines given routinely to children, our country saves \$10.10 in medical costs by averting costs to treat diseases.”³

Immunizations are vital to the maintenance of public health due to their power to help prevent and sometimes eradicate deadly diseases and potential epidemics. A state immunization information system (IIS) is a confidential, population-based, computerized database that records all immunization doses administered by participating providers to persons residing within a given geopolitical area.

An IIS also benefits health care organizations, schools, licensed childcare programs, pharmacies and citizens by consolidating immunization information from multiple providers into a comprehensive immunization record. This consolidation reduces vaccine-preventable diseases and over-vaccination, allowing providers to view up-to-date patient immunization history in one system.

- At the *point of clinical care*, an IIS provides consolidated immunization histories for use by a vaccination provider in determining appropriate client vaccinations.
- At the *population level*, an IIS provides aggregate data on vaccinations for use in surveillance and program operations, and in guiding public health action with the goals of improving vaccination rates and reducing vaccine-preventable disease.⁴

In Michigan, the statewide IIS is part of the Michigan Care Improvement Registry (MCIR), which was created in 1998 to collect reliable immunization information for children and make it accessible to authorized users. A 2006 change to the Michigan Public Health Code enabled the MCIR to transition from a childhood immunization registry to a lifespan registry including citizens of all ages.

This use case aids in providing current and correct administration of vaccinations, and can help healthcare providers ensure that all necessary vaccinations are provided to patients on a correct schedule by helping maintain a record of all immunizations administered. The adoption of this use case also ensures compliance with Meaningful Use legislation, which requires the ability for healthcare providers to communicate immunizations electronically with a public health agency.

³ “Facts,” Every Child By Two, accessed on June 27, 2016, http://www.ecbt.org/index.php/facts_and_issues/

⁴ “Immunization Information Systems (IIS),” Centers for Disease Control and Prevention, accessed on June 27, 2016, <http://www.cdc.gov/vaccines/programs/iis/about.html>

Diagram

This diagram shows the information flow for this use case.

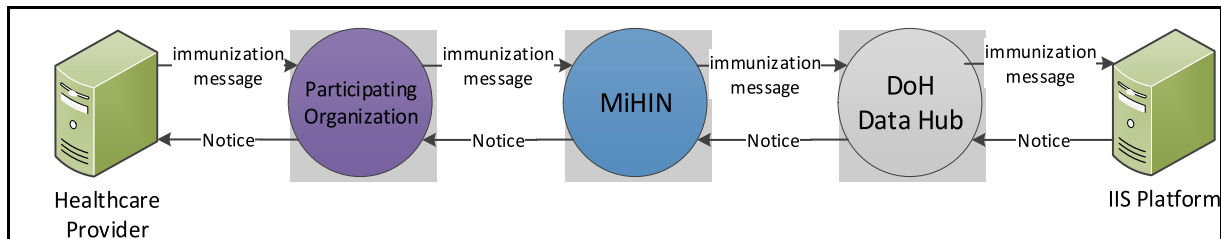


Figure 1. Data flow for Immunizations

Regulation

This section describes whether this use case is being developed in response to a federal regulation, state legislation or state level administrative rule or directive.

Legislation/Administrative Rule/Directive:

- Yes
- No
- Unknown

- Public Law 111-152 (Affordable Care Act)
- Public Law 111-5; Section 4104 (Meaningful Use)

Meaningful Use:

- Yes
- No
- Unknown

The Health Insurance Portability and Accountability Act of 1996 (HIPAA) addresses the sharing of confidential medical information. Some physicians have raised questions about HIPAA confidentiality requirements and the reporting of confidential data related to communicable diseases and immunization to local health departments.

HIPAA legislation states that reporting of communicable diseases to local or state health departments or reporting immunizations to the Michigan Childhood Immunization Registry are exempt because they are mandated within the Michigan Public Health Code and are used for surveillance and prevention of communicable diseases. This is addressed in section §164.512(b) of the HIPAA regulations.

The relevant sections of the Michigan Public Health Code and Administrative Rules are:

- Sec. 333.5111 (1) b - Requirements for reporting communicable and serious communicable diseases
- R 325.173 - Administrative rules detailing the reporting of communicable and serious communicable diseases

Cost and Revenue

This section provides an estimate of the investment of time and money needed or currently secured for this use case.

Costs

This use case includes the following cost components:

- Development of message protocols compatible with certified electronic health record (EHR) systems to send routine reports
- Hospital and health system implementation, training, and integration
- Participant development and implementation to onboard for this use case

Revenue

Primarily, the revenue for this use case will consist of cost savings from efficient processes. It is anticipated there will be cost savings for hospitals, doctors, care coordinators, pharmacies, and other community providers generated from time saved by communicating immunizations automatically and electronically, as opposed to traditional methods such as by phone, fax, or manual computer submission to local health authorities.

Additional cost savings could be achieved by the following:

- Follow-up calls that are currently required may be avoided
- Transcription and communication errors may be avoided
- Full compliance with regulatory reporting requirements can be automatically achieved

Implementation Challenges

This section describes the challenges that may be faced to implement this use case.

Healthcare provider EHR systems must be able to send messages to MiHIN so immunization data can be forwarded to the state IIS. Some development may be required for this functionality to be achieved.

Additional implementation challenges may arise as healthcare providers adjust to the new method of sending immunization data electronically using this process.

Vendor Community Preparedness

This section addresses the vendor community preparedness to readily participate in the implementation of this use case.

HL7 messaging standard version 2.5.1 is required to send immunizations by Meaningful Use. Because this standard is established and well-tested, it is believed this can be applied readily to hospital and provider routine notifications from certified EHR systems.

Support Information

This section provides known information on this support for this use case.

Political Support:

- Governor
- Michigan Legislature
- Health Information Technology Commission
- Michigan Department of Health and Human Services or other State of Michigan department
- CMS/ONC
- CDC
- MiHIN Board

Sponsor(s) of Use Case

This section lists the sponsor(s) of the use case

- Michigan Department of Health and Human Services

Metrics of Use Case

This section defines the target metrics identified to track the success of the use case.

The key metrics for this use case include:

- Number of immunizations sent to state IIS
- Percentage of overall immunizations via this use case compared to all immunizations received by the IIS
- Number of organizations and facilities sending immunizations via this use case
- Percentage of organizations and facilities sending immunizations via this use case compared to all facilities sending immunizations to the IIS