



**Use Case Title: Immunization Integration**

**Overview:** Juana Maria Marina, at age 4, is overdue for some of her routine childhood vaccinations. Her pediatrician refers her parents to participate in the Immunization Registry’s patient-portal to subscribe to reminders for future vaccines due. Through this portal, her parents can access her immunization records for school and camps. As a teen, Juana Maria’s physicians order titers before administering boosters in preparation for school and work.

**Value:** Improved access to comprehensive vaccine history and vaccine forecasts can improve immunization rates and decrease the incidence of vaccine-preventable disease. Interoperable systems place EMRs on a convergent path with immunization registries, enhancing data quality by capturing accurate data at the point of care, and streamlining workflow to increase productivity and reduce re-work

**Scheduled times:** Tuesday: 12:30-1  
 Tuesday 6-6:30  
 Wednesday 12:30-1  
 Wednesday 2:30-3  
 VIP Tour: Wednesday 10:30-11



Scenario	Vendor	Products	Standards
<p><b>Step 1: Requirements Testing</b></p> <p>A testing program has been established to improve Immunization Workflow support for EMR. System developers can use the testing tools to verify that key provider immunization functions to supported provider efficiency and care quality. Functionality shown by the Provider are drawn from the requirements of this program and are demonstrated by systems that have demonstrated conformance through this program.</p>	HIMSS/	Immunization Integration Program	NA
<p><b>Step 2: Pediatrician: Juana Maria at age 4</b></p> <p>A 4-year-old patient and the parent visit the child’s primary care provider. The provider workflow is optimized for the immunization visit. The provider manually records historical immunizations supplied by the mother.</p>	DSS Inc./ DSS	Immunization Dashboard (iDB)	HL7 v2.5.1 VXU, QBP/RSP

Scenario	Vendor	Products	Standards
<p>The provider retrieves the vaccine history and forecast from the Immunization Registry and reconciles this information with the vaccinations already in the provider EMR. The provider administers vaccines and enters the records into her EHR. The local vaccine forecast is updated following the reconciliation and following the vaccine administration using clinical decision support services. The record of the new vaccine administrations are submitted to the Immunization Registry. The provider refers Juana Maria's mom to register for My Immunization Record (MyIR) offered by the State Immunization Registry.</p>			
<p><b>Step 3: Decision Support</b> Evaluation of the history and the forecast is performed by clinical decision support services.</p>	HLN/ Immunization Calculation Engine (ICE)		HL7 V2 VXU, QBP/RSP
<p><b>Step 4: Immunization Registry Patient Portal</b> Juana Maria's mom is able to access the access her immunization record online. She is able to print the 'yellow card' certificate to provide to her summer camp and her new school as proof that he is up-to-date on her vaccinations, which is a required for registration</p>	STC/IWEB		HL7 v2.5.1 VXU, QBP/RSP, XD*
<p><b>Step 5: Pediatrician: Juana Maria age 18</b> Juana Maria will be attending college, where they require additional boosters. She visits her pediatrician to get caught up.  There was a Hep A outbreak at the restaurant she works at so the clinician orders a titer to ensure Juana has maintained her immunity. The results demonstrate that she is immune for Hep A.  She is also due for a HPV vaccine so begins that series.</p>	QVERA/QIE		HL7 Lab Orders/ Results HL7 CCD.CCDA IHE XDS.b IHE XCA
<p><b>Step 6: Pharmacy</b> Juana, a college freshman, enters a Walmart pharmacy to pick up her birth control prescription and while there, the Walmart pharmacy tech reviews her immunization status and notices she needs her 2nd dose of HPV. Which is administered. Juana Maria refuses the 2nd dose of Meningococcal vaccine.</p>	STC with Walmart		XCPD, PLQ

**Data exchange standards:**

**HL7 Version 2.5.1 Implementation Guide for Immunization Messaging (VXU, QBP/RSP)** (Online at <https://www.cdc.gov/vaccines/programs/iis/technical-guidance/downloads/hl7guide-1-5-2014-11.pdf>)