COVID-19 Immunization

Journey Walker is a 42 year old nurse working in West Virginia. She is preparing to carry out an assignment in Delaware and her employer is requesting to see her immunization record. She arranges a visit with her primary care and her physician is able to access her immunization record and administer the missing vaccines. Using the Immunization Gateway Journey's employer in Delaware is able to view her vaccination history both from Delaware and West Virginia. Journey walker is able to continue to use her personal health record to manage her vaccines and health information.

Setting	Description	Standards
1 – Personal Health Record onerecord	A 42 year old nurse, Journey Walker, from West Virginia, works for an agency in West Virginia, Nurses On the Go, that provides per diem home nursing in multiple states. She seeks an immunization for SARS Co-V2. An employer in Delaware has requested documentation of immunization in order for her to work there. She has a five year history of hypertension and a three year history of diabetes, controlled on lisinopril and metformin. She has been immunized in the past against pertussis, tetanus, and diphtheria (DPT), as well as measles, mumps, and rubella (MMR), and is not sure about pneumonia. She maintains a personal health record in which she records her occupation as an adult health clinical nurse specialist in the home nursing services industry. She includes the name of her employer, Nurses On the Go, and their address 2569 Long Branch Rd, Branchland, WV 25506.	**HL7**: CCDA, HL7 EHRS-FM Release 2: Functional Profile; Work and Health, Release 1 – US Realm
2 – PCP Allscripts All possible	At a visit with a new PCP in West Virginia, the PCP accesses clinical information from her prior PCP and learns that there is no known history of COVID-19 for this patient. Serology for SARS Co-V2 is negative. One test obtained for SARS Co-V2 infection four months prior was negative. She has received the influenza vaccine annually in the past, but not yet this season. A search of the immunization registry confirms pneumonia vaccination in 2010, DPT in 2015, MMR in 1998, and annual influenza vaccine since 2010. Her physician has access to serology results showing serological evidence of immunity to Hepatitis B, which will also be submitted to her immunization registry records. Since Journey works as an adult health clinical nurse specialist, and has underlying risk factors (hypertension, diabetes), the provider recommends a SARS Co-V2 vaccine and influenza.	**HL7**: v2.5.1 Immunization Guide

	The patient agrees and receives both immunizations. These immunization records will be available to Journey to bring to her employer. The provider vaccinates the patient, and a record of the vaccinations is submitted to the Immunization Registry..	
3 – State WV Immunization Registry STC health	Journey's next work assignment is in Delaware, and the immunization gateway makes her WV record available there.	**HL7**: v2.5.1 Immunization Guide
4 – Immunization Gateway CDC	The Immunization Gateway infrastructure facilitates immunization registry queries and submissions for patients that have records in multiple jurisdictions or have vaccinations reportable to multiple jurisdictions. Since Journey will be on assignment in another jurisdiction, her vaccine history is reportable to both her home state's jurisdiction, and to the jurisdiction where she will be working. The Immunization Information System recognizes that the patient resides in another state and forwards the immunization via the Immunization Gateway.	**IHE**: XDR **HL7**: v2.5.1 Immunization Guide
5 – State DE Immunization Registry ENVISION TECHNOLOGY PARTNERS	The immunization gateway is leveraged to route the new vaccination to the patient's home state. The employee has given consent to the occupational medicine specialist in DE to access her immunization history. Her COVID-19 vaccination is available along with her other relevant vaccinations.	**HL7**: v2.5.1 Immunization Guide

8 – Personal Health Record **STC MyIR** **STC Employer Dashboard** STC health	After completing her assignment in Delaware, Journey returns to a new assignment in her home state of WV and needs to provide her vaccination information to her new employer. She logs into MyIR account and since her employer is part of the SAFE return to work program she is able to seamlessly share her information. She performs the daily screening, and checks her record, is reminded she needs her 2nd SARS Co-V2 vaccine at the end of the month and schedules an appointment using the scheduler. Journey is able to schedule with any National or Community Pharmacies that are participating in this program as a testing provider. Journey is able to access the evidence of vaccination to demonstrate to her employer that she has received a COVID-19 vaccination and that she has serological evidence of immunity to Hepatitis B so that she can proceed to her work assignment. Since the employer uses the SAFE return to work program the employer is able to continue to monitor symptoms and Covid-19 exposure and all test results until Journey is fully vaccinated with the 2nd dose. **That ends Journey's walkthrough where we were able to see the power of having a personal health record, interoperability at the provider level between two different state immunization information systems through the use of the gateway and closing with being able to share the important occupational data with the healthcare employers as all key players within the ecosystem work together to best manage the pandemic** If you have any questions please post these through the chat function within Zoom as we are happy to answer them.	**HL7**: v2.5.1 Immunization Guide

Further Reading:

CDC, NIOSH. Emergency Preparedness and Response Program, Coronavirus Disease-2019. https://www.cdc.gov/niosh/emres/2019_ncov.html?deliveryName=USCDC_308-DM26149

CDC, NIOSH. Electronic Health Records (EHRs) and Patient Work Information. https://www.cdc.gov/niosh/topics/ehr/

HL7 EHRS-FM Release 2: Functional Profile; Work and Health, Release 1 – US Realm. https://www.hl7.org/implement/standards/product_brief.cfm?product_id=498

HL7 CDA® R2 Implementation Guide: Consolidated CDA Templates for Clinical Notes; Occupational Data for Health Release 1 - US Realm. https://www.hl7.org/implement/standards/product_brief.cfm?product_id=522

IHE Patient Care Coordination Technical Framework (Volumes 1 and 2).
https://www.ihe.net/uploadedFiles/Documents/PCC/IHE_PCC_TF_Vol1.pdf
https://www.ihe.net/uploadedFiles/Documents/PCC/IHE_PCC_TF_Vol2.pdf

IHE CDA Occupational Data Options.
https://www.ihe.net/uploadedFiles/Documents/PCC/IHE_PCC_Suppl_ODH_Options_Rev1-0_PC_2020-06-17.pdf

HL7 v2.5.1 Implementation Guide for Immunization Messaging, Release 1.5

https://repository.immregistries.org/resource/hl7-version-2-5-1-implementation-guide-for-immunization-messaging-release-1-5-1/

C-CDA (HL7 CDA® R2 Implementation Guide: Consolidated CDA Templates for Clinical Notes - US Realm)

https://www.hl7.org/implement/standards/product_brief.cfm?product_id=492