

Immunization QBP and VXU Event message Flow to the MS Public Health Immunization Registry

Version 1.4

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Document Purpose

This document is designed to facilitate the collection and dispersal of information regarding the Immunization Registry Integration between Technology Leaders data providers, Medicity, EMR Vendors and the Mississippi Department of Health Immunization Registry (MIIX).

Document Version

Author	Version	Date	Comments	Status
Jeremy Hill	1.0	12/16/2013	Initial Draft	Draft
Jeremy Hill	1.1	1/6/2014	Added sample message	Draft
Jeremy Hill	1.2	2/1/2014	Moved out of Draft	Ready for Use
Jeremy Hill	1.3	2/28/2014	Added contact Info	Ready for Use
Jeremy Hill	1.4	4/1/2015	Added Security Info	Ready for Use

Http POST URL

<https://immunizations.ms-hin.net/HttpPostForwarder/>

NOTE: A userID, Password and Facility name are required for connection. Refer to section “Building the Http POST Message” for more information on constructing the URL.

For questions regarding connecting to the gateway, please contact MS-HIN. Our number is 601.977.8192 or email info@ms-hin.ms.gov.

Security

MS-HIN has disabled SSL in favor of TLS for inbound connections. We will support TLS but no SSL protocols.

MIIX User ID & Password

Each Facility/practice will need to fill out the MIIX User Agreement found on the MSDH website (http://www.msdh.state.ms.us/msdhsite/_static/31,0,136.html). Please return the User Agreement to the MSDH Immunization Program to the attention of the Registry Coordinator. After all MIIX documents are completed, a user ID and Password will be assigned by the MIIX Registry Team.

MIIX Message Requirements

The Mississippi Immunization Registry has specific requirements field requirements for the HL7 message contents. The HL7 interface supports CDC standard immunization messages and is the recommended format for submitting immunization data to MIIX.

The Immunization guide can be found here.

<http://www.msdh.state.ms.us/msdhsite/index.cfm/14,0,71,502.html>

A sample message is below for guidance:

```
MSH|^~\&|PRIMESUITE|1234^The Interop Family Clinic|Mississippi
Immunization|20131119132512||VXU^V04|Interop Clinic|P|2.5.1||AL
PID|||101639^AMR||Duck^Donald|Duck^Momma|20130807|M||2106-3^white^h170005|195
Pond water RD^^Jackson^MS^55555||555) 555-5555|
(555) 555-5555|||||N^Not Hispanic or Latino^HL70189|||||N
PD1|||The Interop Family Clinic^1234|^Doo^Scooby^AN
NK1|63508|Duck^Papa|FTH
PV1|1|||||||||||||||V02
RXA||999|20131119|20131119|119^Rota^CVX|||00^New immunization record||1234^The
Interop Family Clinic|||A41CB412A|20150315|
```

```
SKB^G|axoSmithkline^MVX|||A|A
RXR|PO^Ora1^HL70162|N/A^None^HL70163
OBX|0|ST|VFC-STATUS^VFC-STATUS^STC||V02
OBX|2|TS|29768-9^DATE VACCINE INFORMATION STATEMENT
PUBLISHED^LN||20130826|||||F
OBX|3|TS|29769-7^DATE VACCINE INFORMATION STATEMENT
PRESENTED^LN||20131119|||||F
```

Building the Http POST Message

The HttpPostForwarder (proxy) service forwards Http POST messages to the MIIIX Immunizations Registry and returns the response back to the sender. The proxy service accepts POST messages in three different formats. The purpose of this document is to explain those three options for sending POST messages to the proxy service. This document is not intended to cover deployment nor configuration of the service itself.

The parameters being sent in the POST message are USERID, PASSWORD, MESSAGEDATA, and optionally FACILITYID. These parameters are consistent in all three POST format options.

Option 1 for sending POST messages to the proxy service is a *multipart/form-data* POST with a boundary. Example HTTP POST message:

```
POST http://agen-dev-app:8702/HttpPostForwarder HTTP/1.1
Content-Type: multipart/form-data; boundary=-----8cf28f71e050b80
Host: agen-dev-app:8702
Content-Length: 573
Expect: 100-continue
Connection: Keep-Alive

-----8cf28f71e050b80
Content-Disposition: form-data; name="UserID";

test_user
-----8cf28f71e050b80
Content-Disposition: form-data; name="Password";

test_password
-----8cf28f71e050b80
Content-Disposition: form-data; name="FacilityID";

test_facility
-----8cf28f71e050b80
Content-Disposition: form-data; name="MessageData";

MSH|^~\&|||||VXQ^V01|||2.4
QRD|||I|||25^R|^Speciale^shane|VXI|SIIS
QRF|||~20010101

-----8cf28f71e050b80
```

Option 2 for sending POST messages to the proxy service is an *application/x-www-form-urlencoded* POST. Example HTTP POST message:

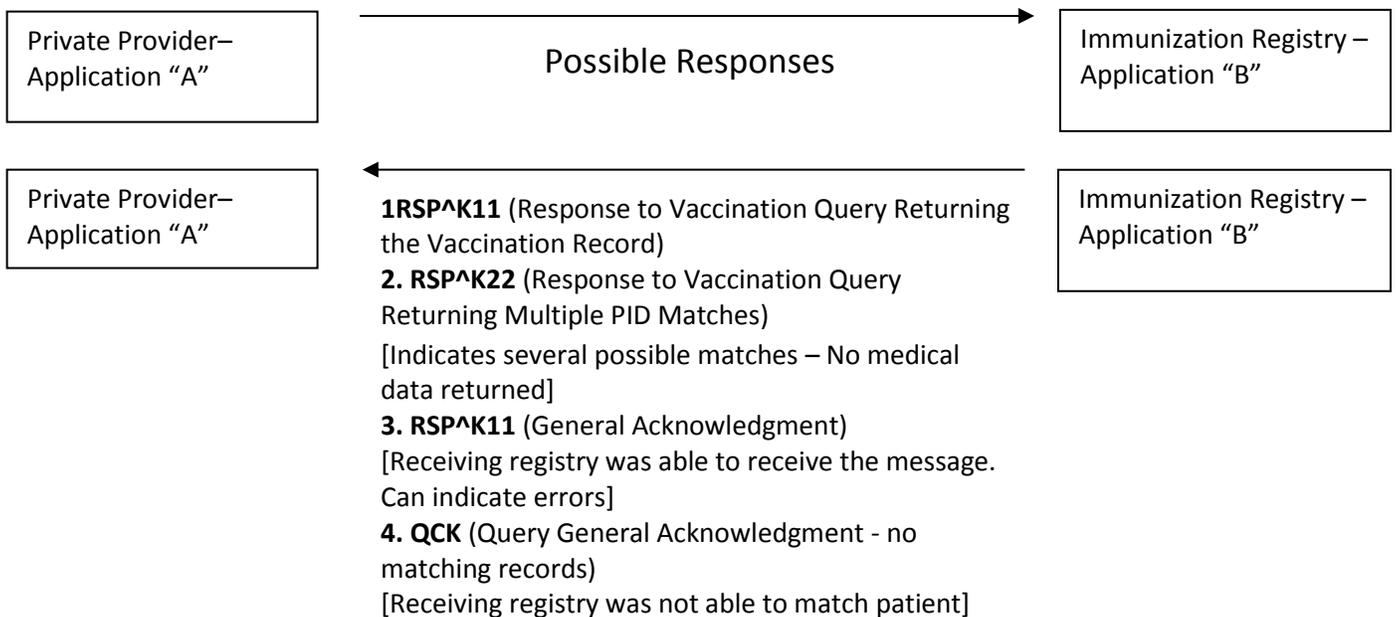
```
POST http://agen-dev-app:8702/HttpPostForwarder HTTP/1.1
Content-Type: application/x-www-form-urlencoded
Host: agen-dev-app:8702
```


Sequence exchange to public Health Diagram

QBP^Q11

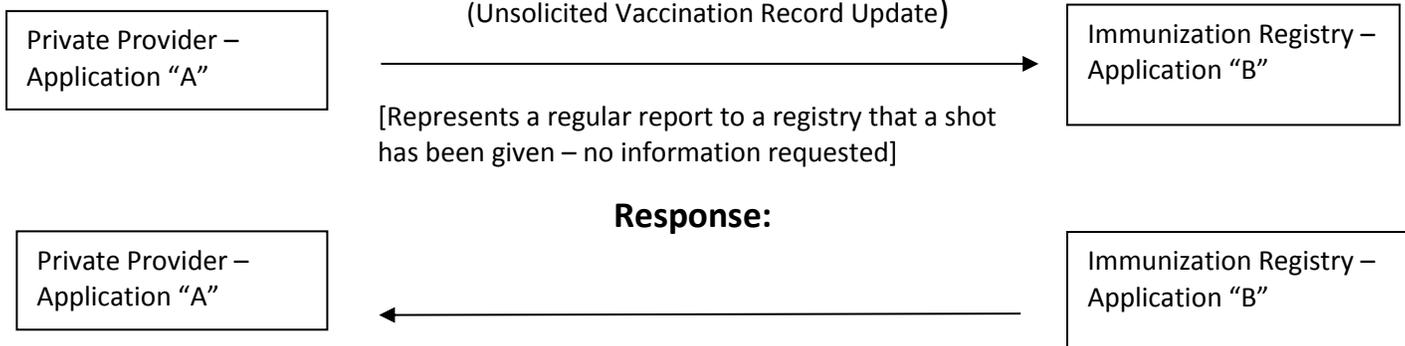
(Query for Vaccination Record)

[Uses components in QRF-5 to match record]



VXU

(Unsolicited Vaccination Record Update)



ACK (General Acknowledgment)

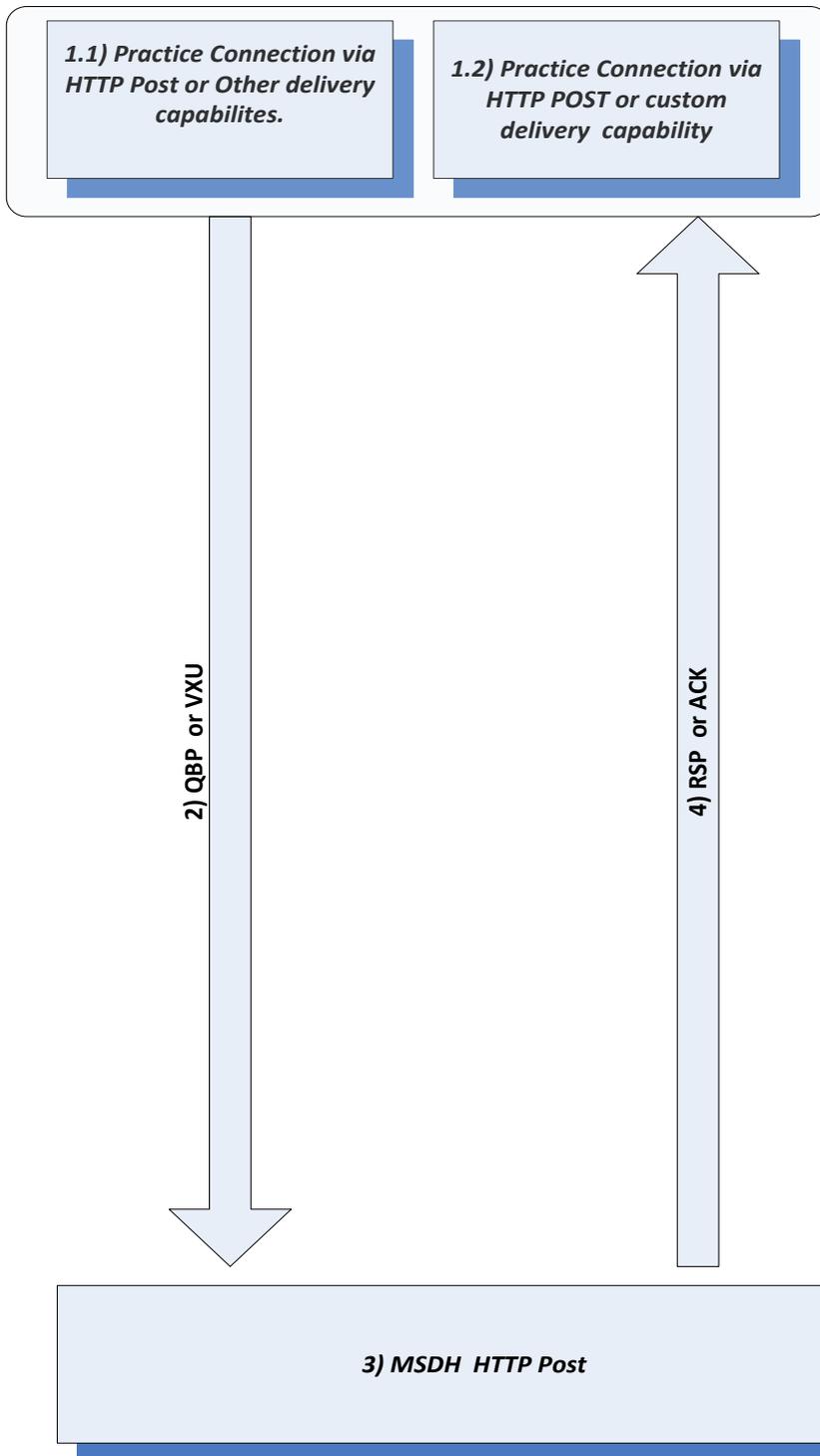
[Receiving registry was able to receive the message. Can indicate errors]

Exchange Requirements

- i. Use HL7 version 2.5.1

Send records using the specifications outlined in **Implementation Guide for Immunization Data Transactions Using Health Level Seven (HL7) Standard Version 2.5.1**
- ii. Use HTTP POST to transmit the following variable/value pairs (**the URL and your user ID and password will be provided prior to any test**)
- iii. **Request:** When the sending application sends MIIX an HL7 message via HTTPS POST command, it must have the following fields:
 - USERID - Assigned by the MIIX administrator.
 - PASSWORD - Assigned by the MIIX administrator.
 - MESSAGEDATA - The HL7 message(s).
- iv. Send your local patient identifier with all VXUs
- v. Search (using a QBP) based on either an ID (state registry ID, regional registry ID, local patient ID/medical record number, Social Security number, or Medicaid number) or the combination of patient first name, last name, and date of birth.

Diagram of HTTPS Exchange



Contributing Practice QBP and VXU