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# Partnering for Data Quality

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OREGON IMMUNIZATION PROGRAM  
Oregon Public Health Division

# Monitoring ALERT IIS Data

- Background
- Data Quality Reports
  - HL7 Transaction Report
  - Usual Suspects Report
  - Data Exchange Report
- Lessons Learned
- Questions

# HL7 Transaction Report

- Area Chart illustrates daily submission pattern
- Counts provided by message type
- Summary of IIS responses
- Timeliness bar chart
- Report is available to IIS and program staff

## Data Quality Report Request

ALL reporting is on data that entered ALERT IIS during the selected time period.

### Select Report Type

- ☒ ACT: Accurate, Complete & Timely  
☐ The Usual Suspects

### Select Report Time Period

- ☐ Begin Quarter  Year  End Quarter  Year   
☐ Begin Month  Year  End Month  Year   
☐ Selectable Date Range Begin  End

### Select Organization(s)

#### Organization Name

OREGON COMMUNITY HEALTH INFORMAT  
Data Source Child Organizations  
TILLAMOOK CO HEALTH DEPT - ROCKAW  
MULTCO PC NORTH PTLD HEALTH CLINIC  
LA PINE COMMUNITY HEALTH CENTER

Add >

Add All >>

< Remove

<< Remove All

#### Selected Organization(s)

ReportName :

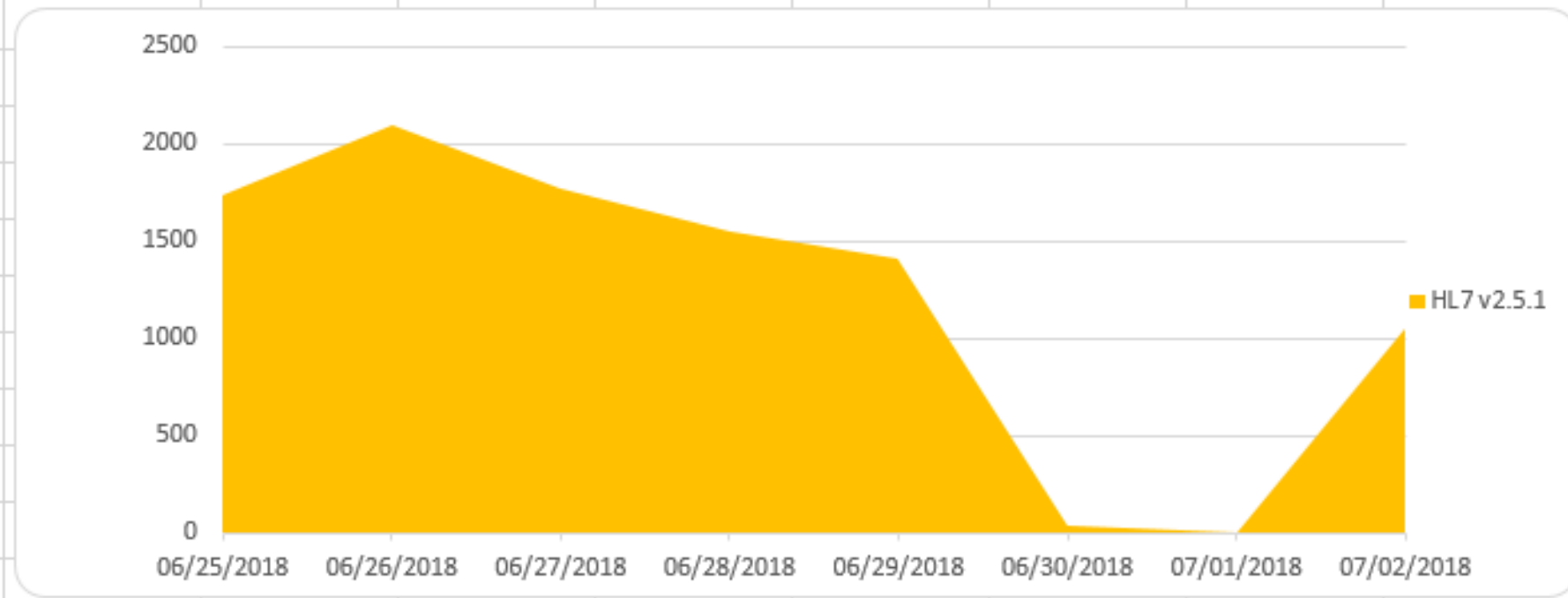
Generate

Cancel

# Request Screen

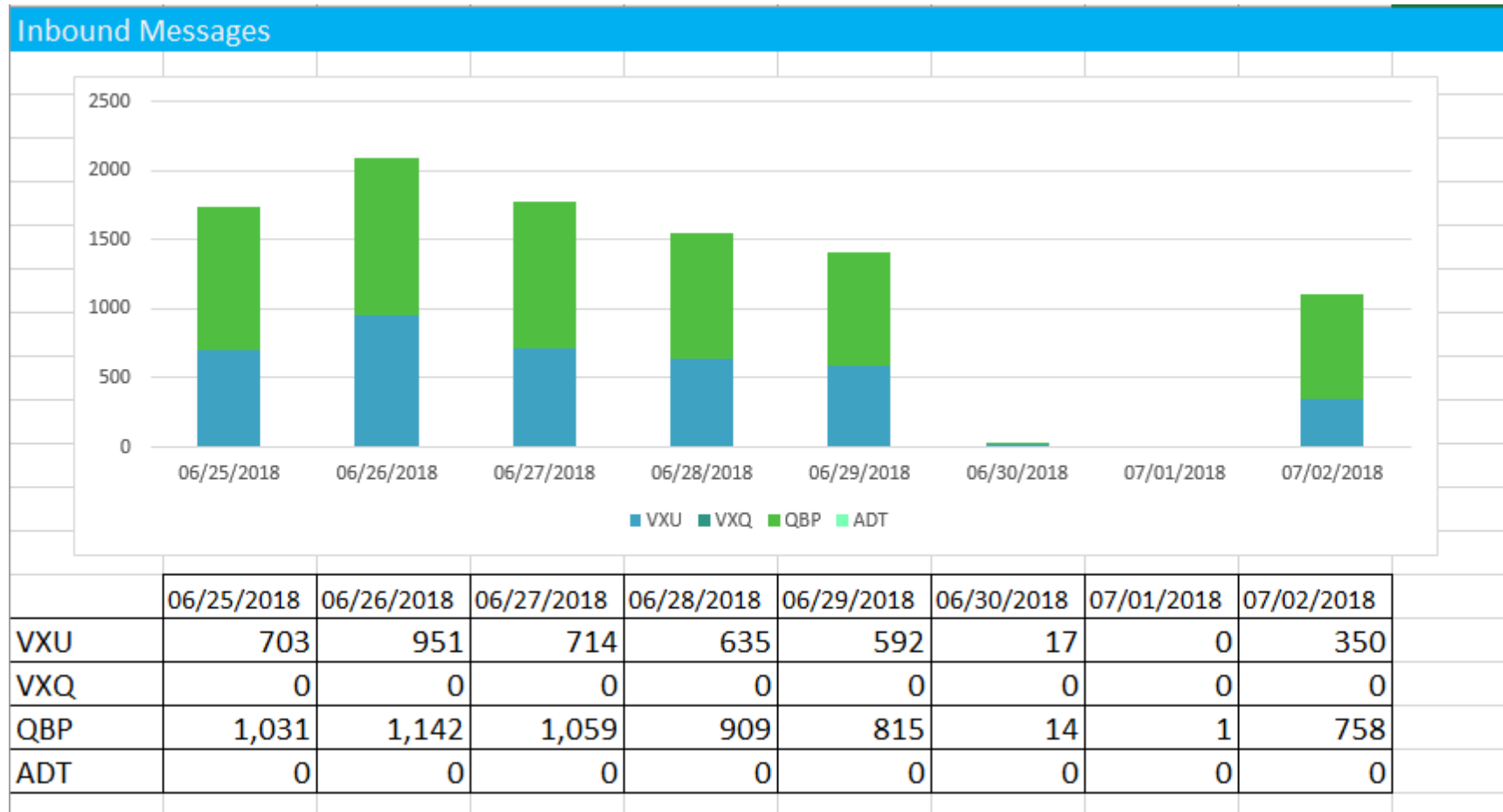
## Submission Format and Transport

# Daily Message Submission Counts



	06/25/2018	06/26/2018	06/27/2018	06/28/2018	06/29/2018	06/30/2018	07/01/2018	07/02/2018
HL7 v2.5.1	1,734	2,093	1,773	1,544	1,407	31	1	1,052

# Daily Submission by Message Type



# Daily Response Messages by Type

MESSAGE TYPE	06/25/2018	06/26/2018	06/27/2018	06/28/2018	06/29/2018	06/30/2018	07/01/2018	07/02/2018
RSP - One	860	974	862	748	683	14	1	672
RSP - Many	18	8	15	10	7	0	0	18
RSP - None	153	160	182	151	125	0	0	130
VXR	0	0	0	0	0	0	0	0
VXX	0	0	0	0	0	0	0	0
QCK	0	0	0	0	0	0	0	0
AA	1,013	1,134	1,043	899	808	14	1	806
AR - E	0	0	0	0	0	0	0	0
AE - I	0	0	0	0	0	0	0	0
AE - E	26	34	31	21	14	0	0	28
AE - W	977	1,134	954	987	966	36	0	596

# The Usual Suspects Report

- Identifies suspect data quality issues for review and follow up. Such as:
  - Historical doses with matching admin and submission dates
  - Missing CDC endorsed data elements
  - False names
- Evaluates new patient and new immunization data submitted for a selected time period.
- Thresholds can be modified.
- Available to IIS staff.



# The Usual Suspects Output

Category	Condition	Count	%Met	%Not Met	Threshold%
Historical Indicator Checks					
	Historical Imms with DOS different than DE	1331	100%	<u>0%</u>	95%
Flagged Immunizations					
	Partial Doses	1331	100%	<u>0%</u>	95%
	Invalid Doses	1331	100%	<u>0%</u>	95%
Suspect Demographics					
	No Viable Address	132	100%	<u>0%</u>	95%
	False Name	132	96%	<u>4%</u>	95%
	Missing Address	132	79%	<u>21%</u>	95%
	Responsible Party	132	45%	<u>55%</u>	95%
Impossible Dates					
	Vaccine date not before DOB	1331	100%	<u>0%</u>	95%
	Vaccine date not after DOD	1331	100%	<u>0%</u>	95%
	Vaccine date not before RSD	1331	100%	<u>0%</u>	95%
	Vaccine date on DOB for specific Imms: HepB	1331	100%	<u>0%</u>	95%
Core Data Elements					
	DOB (Date of Birth)	132	100%	<u>0%</u>	95%
	FN (First Name)	132	100%	<u>0%</u>	95%
Summary					

# Detail Tab Shows Count and % by Clinic of Administered Immunization Missing MVX

Org Name	Org Code	Count Missing Manufacturer	% Missing Manufacturer
EXAMPLE PHARMACY	AL3526	8	50%
EXAMPLE PEDIATRICS LLC	AL3381	13	5%
EXAMPLE CHILDRENS CLINIC	AL0063	42	100%



# DATA EXCHANGE REPORT

- Parses ACKs and categorizes by severity level of the response
- Provides consolidated, actionable information to IIS staff, IT staff, and/or clinic staff.
- Runs at the data exchange parent/vendor level, individual clinic level, or for multiple clinics at the group level
- Fills a gap when EHR is not (yet) providing data exchange results back to sender
- Gives IIS staff visibility in to errors that need addressed

# Request Screen

## Data Exchange Report Request

This report summarizes data exchange activity over a period of time. Please enter a data submission date range, i.e. analyze data submitted from 05/06/2018 to 05/31/2018.

Report Date Range: \*From   \*To  

### Run Individual Reports for Selected Organization(s)

#### Organization Name

SAFEWAY PHARMACY (NOS)  
**Child Group Organizations**  
SAFEWAY 4333  
SAFEWAY 1643  
SAFEWAY 1951

Add >

Add All >>

< Remove

<< Remove All

#### Selected Organization(s)

**Child Group Organizations**  
SAFEWAY 1935

Generate

Cancel

# Summary of Message Success

DATA EXCHANGE SUMMARY							
IMMUNIZATION COUNTS				PATIENT COUNTS			
Accepted/Administered	6668				Accepted	10697	
Accepted/Historical	1682				Pending	6	
Pending	6				Rejected	3	
Rejected	48						
Deleted	50						
Deducted	3495						
QUERY COUNTS							
Queries Sent	1807						
Single Match	1553						
Multiple Match	48						
No Match	206						

# Summary of Error Messages by Severity

## ERROR COUNTS

## IMMUNIZATION & PATIENTS

ERR 4 (Severity)	Counts	%	ERR 8 (Description)
E	6		Record(s) may be locked. Please contact ALERT Help Desk for more information.
E	1		This immunization matches another immunization in incoming file.
E	19		The incoming delete immunization does not match an existing immunization in ALERT IIS. This delete was not processed.
E	15		<MIDDLENAME> is not a valid middle name.
E	4		More than one clinician found to match (<LASTNAME>, <FIRSTNAME>)
E	3		<FIRSTNAME> is not a valid first name.
E	14		The sending provider organization does not own the existing matched immunization in ALERT IIS. This delete was not processed.
E	140		INVALID OR MISSING OBSERVATION VALUE. NO VALUE STORED.
E	12		The incoming delete immunization matches a shot given from ALERT IIS inventory. This delete was not processed.
E(ERROR) TOTAL	<u>214</u>	1%	

# Error Message Detail

Issue Description	Message ID	Patient Name	Patient DOB	Action Needed
Vaccine Eligibility Code is not valid for organization. No value stored.	201806181111238	Sample, TestPatient	11/17/1990	Correct as recommended, resubmit as needed

# Lessons Learned

- Access to ACKs by all internal IIS staff means no bottle neck w/ SQL staff
- QA person at parent org needs access at parent level, put this in considerations
- Release to internal team first, update ACKs if needed, then release externally
- Use this as a way to monitor data at the provider level and at the IIS level
- The data exchange report is intended simply to parse the ACKs, it cannot address programmatic requirements unless those can be managed through HL7.



# Contact Information

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