Introduction to MIIS

2019 Adult Immunization Conference

Christine Bradley, MA

April 2, 2019

Disclosure

I, Christine Bradley, have been asked to disclose any significant relationships with commercial entities that are either providing financial support for this program or whose products or services are mentioned during this presentation.

I have no relationships to disclose.

I may discuss the use of vaccines in a manner not approved by the U.S. Food and Drug Administration, but in accordance with ACIP recommendations.
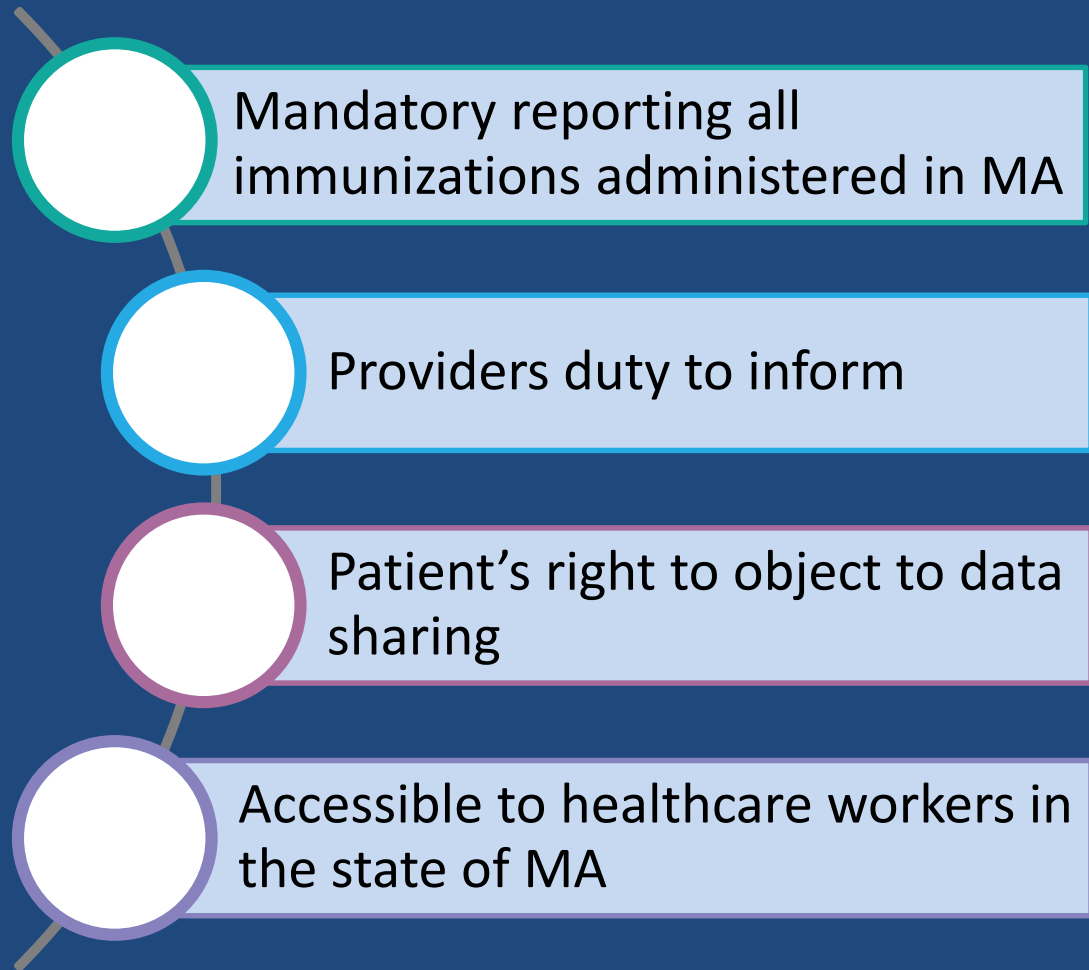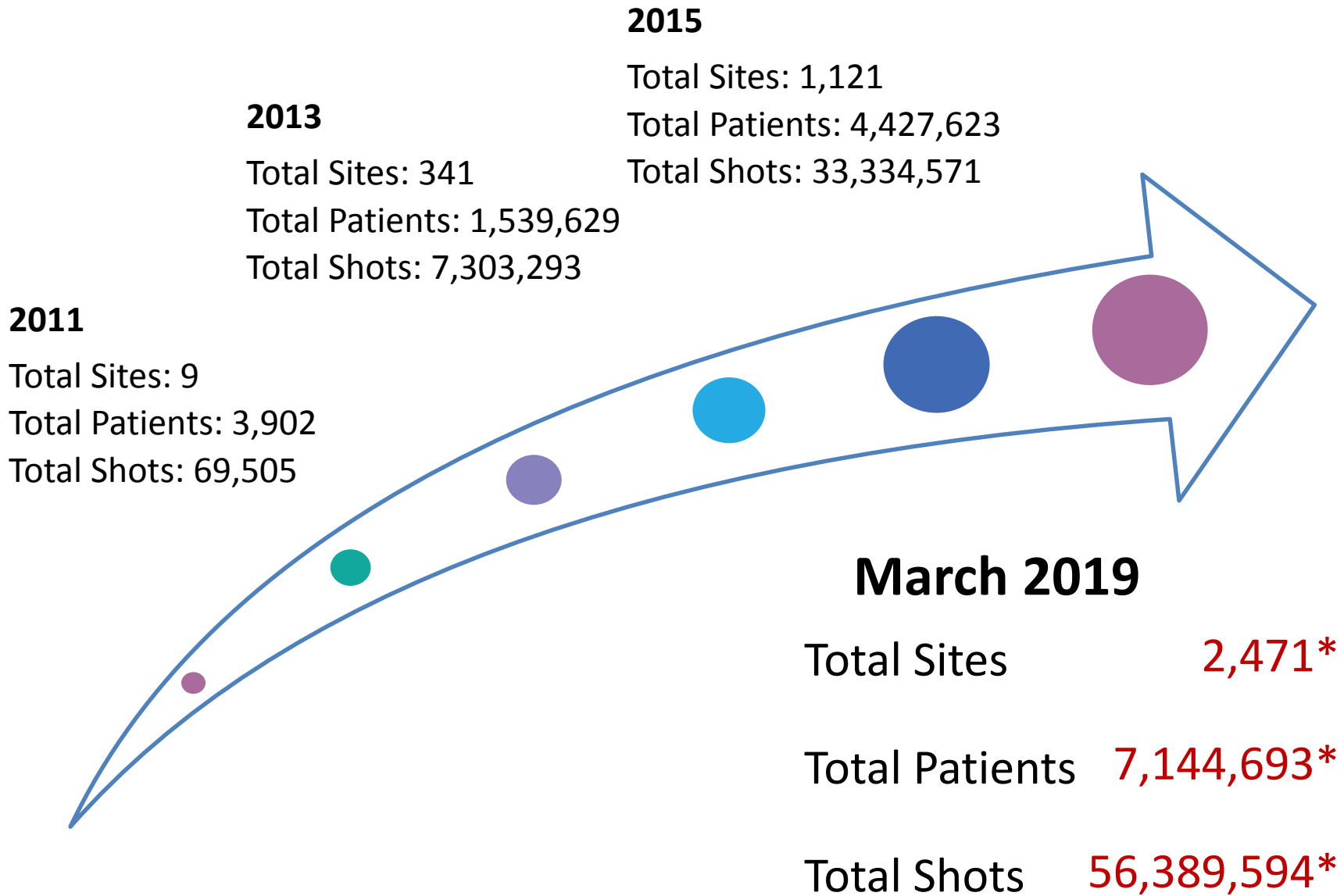
Agenda

- ✓ Overview of the MIIS
- ✓ Legislation & Regulations
- ✓ Redesign
- ✓ Functions of the system
- ✓ Data Quality
- ✓ Coming Enhancements
- ✓ Future Trainings

MIIS Overview

- Secure, confidential web-based system capable of ***electronic data exchange*** and direct data entry

- Consolidates immunization records over lifespan

- Assists providers with clinical decisions
  - Helps identify due or overdue immunizations
  - Prevents over/under immunization

- Includes practice management tools
  - Patient immunization and vaccine usage reports
  - Assists schools with student immunization coverage

- Provides infrastructure for tracking essential information during public health emergencies

MIIS
Legislation

Mandatory reporting all immunizations administered in MA

Providers duty to inform

Patient's right to object to data sharing

Accessible to healthcare workers in the state of MA

2015

Total Sites: 1,121
Total Patients: 4,427,623
Total Shots: 33,334,571

2013

Total Sites: 341
Total Patients: 1,539,629
Total Shots: 7,303,293

2011

Total Sites: 9
Total Patients: 3,902
Total Shots: 69,505

March 2019

Total Sites   2,471*

Total Patients   7,144,693*

Total Shots   56,389,594*

Redesign

Adult Conference 2019 - MIIS

MIIS
Massachusetts Immunization Information System

PATIENTS ▾   **VACCINES ▾**   **REPORTS ▾**

Welcome Back, Christine!

⚠ ALERTS

Attention Clinical Roster Users!: Please be advised that you must enter **all required fields** into the Patient Row(s) before the patient row data will auto-save. The required fields are:
• First Name
• Last Name
• Date of Birth

Exiting the roster before entering all required fields in a patient row will result in **the loss of data for that particular row.**

For additional information regarding updates to clinic roster entry issues, please **click here.**

📅 TAKE ACTION

As of 02/12/2019 02:25 AM, **104** patients required review for manual deduplication - REVIEW DUPLICATE PATIENTS

As of 02/12/2019 02:25 AM, **2** immunizations required review for manual deduplication - REVIEW DUPLICATE IMMUNIZATIONS

DELIVERED REPORTS

No delivered reports
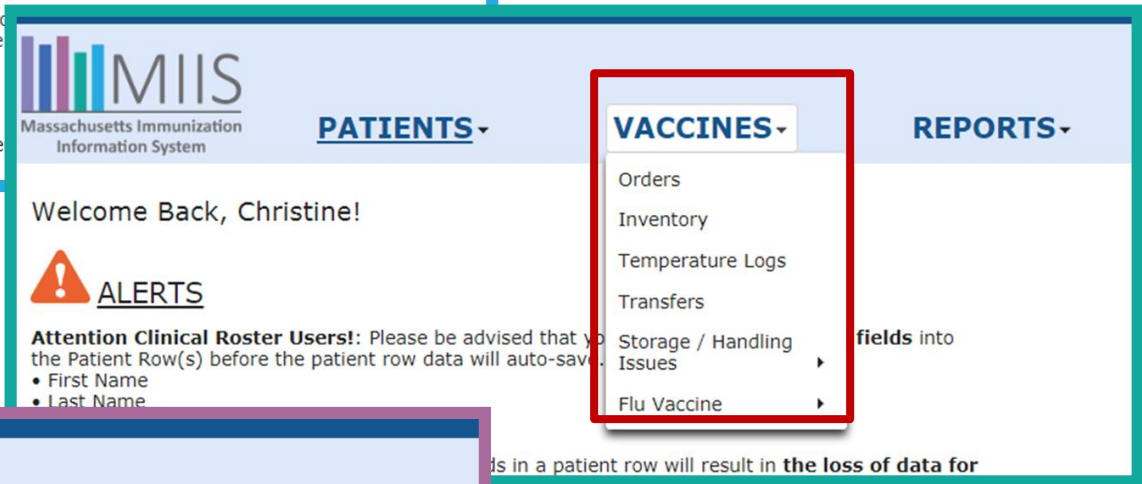
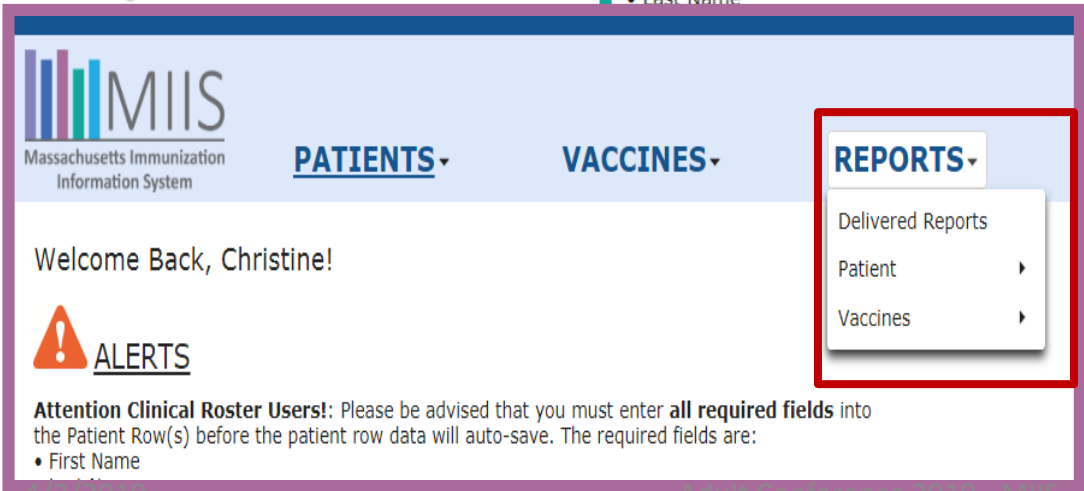# Patients

Vaccines

Reports

ALERTS

Attention Clinical Roster Users!: Please be advised that you must enter **all required fields** into the Patient Row(s) before the patient row data will auto-save. The required fields are:
• First Name
• Last Name
• Date of Birth

Exiting the roster before entering all required fields in a patient row will result in **the loss of data for that particular row.**

For additional information regarding updates to clinic roster entry issues, please **click here.**

Alerts

Provides you with information you may need to navigate the MIIS

Duplicate Queues

> **✓ TAKE ACTION**
>
> As of 02/12/2019 02:25 AM, **104** patients required review for manual deduplication - REVIEW DUPLICATE PATIENTS
>
> As of 02/12/2019 02:25 AM, **2** immunizations required review for manual deduplication - REVIEW DUPLICATE IMMUNIZATIONS

Duplicate Immunizations

- Potential duplicate reporting of vaccine
- Provider site to review and resolve
  - Delete least accurate or incomplete shot

Duplicate Patients

- Potential duplicate patient
- Provider site to review and resolve
  - Select accurate information and merge

Review and Resolve Duplicate Immunizations

Name: MINNIE MOUSE

Birth Date: 04/22/1963

Age: 55 yr 8 mo **Gender:** Female

MIIS ID: 6948049

Data Sharing: Yes

VFC Eligibility: Not VFC Eligible

Address: 45 BLUE CHEESE WAY
WRENTHAM, MA, 02093

Phone: (508) 555-5555

Instructions

FIELD NAME	VACCINE 1	VACCINE 2
VACCINE GROUP	Flu	Flu
VACCINE	Flu-ccIIV4, p-free	Flu-aIIV3
TRADE NAME	Flucelvax Quadrivalent, p-free	
DATE GIVEN	01/17/2019	01/17/2019
DOSAGE	0.5	0.5
LOT NUMBER	111111	22222
MANUFACTURER	Seqirus	Seqirus
PROVIDER	Happy Hospital	DPH-Immunization Program
DOSAGE VALIDITY	Valid	Valid
HISTORICAL FLAG	N	N
ADMIN BY	Userfname userlname	Userfname userlname
DATE REPORTED	01/17/2019	01/17/2019
VACCINE(S) TO DELETE	☑	☐

Submit

Review and Resolve Duplicates

The following are two possible duplicates for your review. The MIIS system finds a high probability that these two records are duplicates.

Select the record to keep:	System suggested record	Possible duplicate record
	◉ MOUSE, MINKEY D	○ MOUSE, MINNIE DAISY
Provider Site(s)	MIIS Test Site, Ordering_Provider	Ordering_Provider
Date Last Updated	08/22/2018 08:48:12 AM	08/02/2018 01:46:17 PM
Percent Complete	50.00%	50.00%
Provider Practice Type	Family Practice, Pediatric Practice	Family Practice
MIIS ID	8212266	8212282
Data Sharing Allowed	Yes	Yes

▸ **Show/Hide Immunizations**

Select the elements to keep:

Patient Name	◉ MOUSE, MINKEY D	○ MOUSE, MINNIE DAISY
Date Of Birth	◉ 01/05/2016	○ 01/05/2016
Home Phone	◉ <NO DATA>	○ <NO DATA>
Home Address	◉ 100 Happy Street, Anywhere, MA, 00000	○ 100 Happy St, Anywhere, MA, 00000
Mother's Maiden Name	◉ <NO DATA>	○ <NO DATA>
Multiple Birth	◉ <NO DATA>	○ <NO DATA>

[Merge] [Not a Match]

Return to Queue
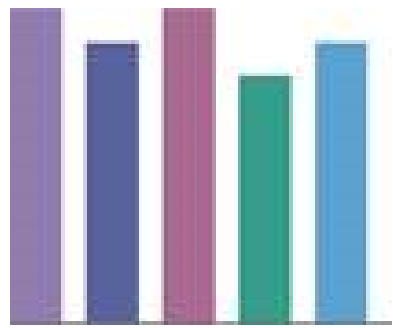
Data Quality

Data quality efforts from provider sites are critical to making the MIIS a reliable Public Health database. Your contributions make a difference!

Data Quality Dashboard

Overall Score

Overall Score - 92 EXCELLENT

MEASUREMENT	SCORE	DESCRIPTION	WEIGHT
Completeness	85	Good	40%
- Patient	76	Okay	20%
- Immunization	95	Excellent	20%
Timeliness	94	Excellent	20%
Accuracy	98	Excellent	40%

Completeness

Completeness Score - 85 Good

Patient Completeness

Total - 7,510

MEASUREMENT	COUNT	PERCENTAGE
Patients with middle name	1,067	14.2%
Patients with gender	7,508	100.0%
Patients with race	4,952	65.9%
Patients with ethnicity	3,873	51.6%
Patients with VFC eligibility	7,152	95.2%
Patients with mother's maiden name	4,729	63.0%
Patients with a caregiver	6,981	93.0%
Patients with street address	7,509	100.0%
Patients with city	7,510	100.0%
Patients with state	7,510	100.0%
Patients with zip code	7,509	100.0%
Patients with phone number	7,508	100.0%
Patients with email	163	2.2%

Immunization Completeness

Immunization Completeness

Administered -28,709

Historical -2,699

Total - 31,408

MEASUREMENT	ADMIN. COUNT	ADMIN. PERCENTAGE	HIST. COUNT*	HIST. PERCENTAGE*	TOTAL COUNT*	TOTAL PERCENTAGE*
Immunizations given to patients ≥19 with VFC eligibility	445	47.3%	0	0.0%	445	44.1%
Immunizations given to patients <19 with VFC eligibility	27,042	97.4%	0	0.0%	27,042	89.0%
Immunizations with manufacturer	28,707	100.0%	1,504	55.7%	30,211	96.2%
Immunizations with lot number	28,507	99.3%	245	9.1%	28,752	91.5%
Immunizations with expiration date	28,487	99.2%	222	8.2%	28,709	91.4%
Immunizations with dosage	28,582	99.6%	149	5.5%	28,731	91.5%
Immunizations with dosage other*	2	0.0%	2	0.1%	4	0.0%
Immunizations with lot type	28,039	97.7%	0	0.0%	28,039	89.3%
Immunizations with site	28,102	97.9%	1,580	58.5%	29,682	94.5%
Immunizations with routes	28,607	99.6%	14	0.5%	28,621	91.1%
Immunizations with administered by	28,568	99.5%	2	0.1%	28,570	91.0%
Immunizations with VIS date given	28,674	99.9%	0	0.0%	28,674	91.3%
Immunizations with VIS publication date	28,639	99.8%	0	0.0%	28,639	91.2%

*Value is not included in score. Any immunization reported as historical is excluded from the immunization completeness calculation.

Immunization Completeness

Timeliness

Timeliness Score - 94 Excellent

Administered -28,709

MEASUREMENT	COUNT	PERCENTAGE
Immunizations reported <1 day of date given	26,481	92.2%
Immunizations reported between 1 day and <2 days of date given	423	1.5%
Immunizations reported between 2 days and <7 days of date given	299	1.0%
Immunizations reported 7 days of date given	26	0.1%
Immunizations reported between 8 days and <14 days of date given	42	0.1%
Immunizations reported between 14 days and <30 days of date given	140	0.5%
Immunizations reported 30 days or more of date given	1,298	4.5%

Accuracy

Accuracy Score - 98 Excellent

Administered -28,709

Historical -2,699

Total - 31,408

MEASUREMENT	ADMIN. COUNT	ADMIN. PERCENTAGE	HIST. COUNT	HIST. PERCENTAGE	TOTAL COUNT	TOTAL PERCENTAGE
Invalid Immunizations	366	1.3%	76	2.8%	442	1.4%
Unspecified formulations	93	0.3%	1282	47.5%	1375	4.4%
-Meningococcal ACWY, unspecified (CVX 108)	0	0.0%	2	13.3%	2	0.2%
-Pneumococcal, unspecified (CVX 109)	3	0.1%	75	21.6%	78	2.6%

+ Given outside of licensure dates - Total 19

+ Administered outside recommended age - Total 249   Adult Conference 2019 - MIIS

4/2/2019
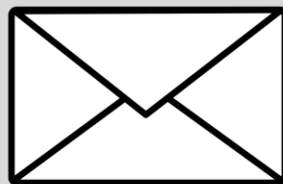
HL7 Weekly Summary Email

Hello,

This email is to inform you ▓▓▓▓▓▓▓ PEDIATRICS-▓▓▓▓▓▓▓ weekly metrics of data submission via HL7 from 02/17/2019 at 12:00 AM through 02/24/2019 at 12:00 AM.

Please take a moment to review the information in the table below. We ask that you pay particular attention to the **Percent of Errors** and **HL7 messages** columns. If errors in the **'Percent of Errors'** column are greater than 5% please review your messages further. Messages may error for various reasons, such as invalid or missing data. Please review your error messages and resubmit with any necessary updates.

Please also review the **HL7 Messages** column to confirm that message counts are accurate. If the message counts are lower than normal, please check with your electronic medical record (EMR) vendor or IT department to determine if messages are being incorrectly filtered before reaching the MIIS.

Thank you,
MIIS HelpDesk

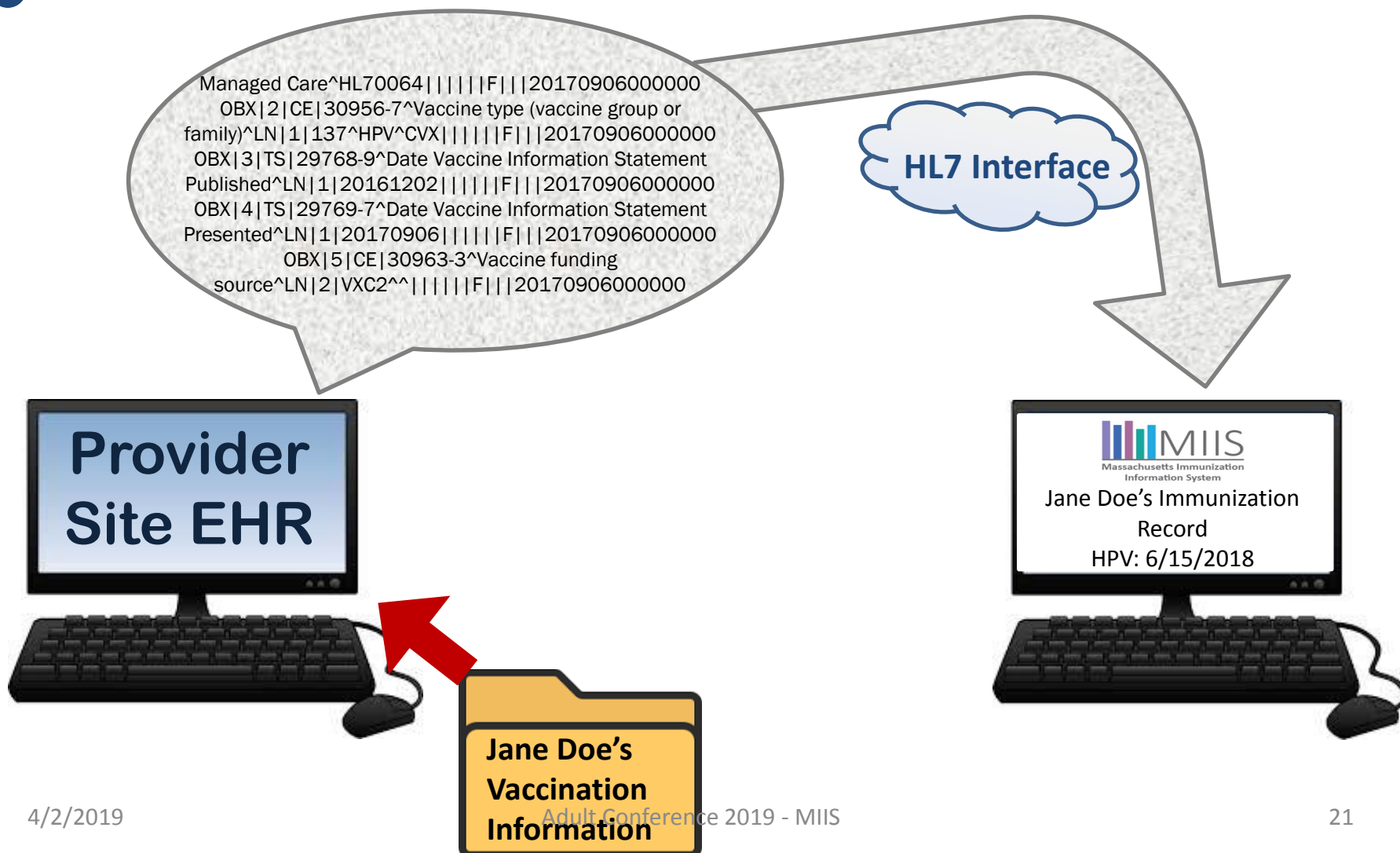| Site PIN	Provider Name	Message Type	HL7 Messages	Success	Success With Warnings	Errors	Percent of Errors	Avg Processing Time(ms)	Avg weekly count	Percent change	Last Message Received
▓▓	PEDIATRICS-▓▓▓▓	VXU	41	37	0	4	9.8	1	44	93.2	02/22/2019 3:47 PM

What is HL7?

Health Level Seven (**HL7**) refers to a set of international standards for transfer of clinical and administrative data between software applications

The MIIS receives immunization data from your site through HL7 messages if your site is *LIVE* with **Electronic Data Exchange**

Electronic Data Exchange
HL7 Messages

Managed Care^HL70064||||||F|||20170906000000
OBX|2|CE|30956-7^Vaccine type (vaccine group or family)^LN|1|137^HPV^CVX||||||F|||20170906000000
OBX|3|TS|29768-9^Date Vaccine Information Statement Published^LN|1|20161202|||||||F|||20170906000000
OBX|4|TS|29769-7^Date Vaccine Information Statement Presented^LN|1|20170906||||||F|||20170906000000
OBX|5|CE|30963-3^Vaccine funding source^LN|2|VXC2^^||||||F|||20170906000000

HL7 Interface

Provider Site EHR

MIIS
Massachusetts Immunization Information System
Jane Doe's Immunization Record
HPV: 6/15/2018

Jane Doe's Vaccination Information

New Onboarding Process

Not On-boarded with the MIIS?

We are piloting a new On-boarding process!

- Simplified
- Shorter onboarding time

Coming Soon

Roster redesign

- Required fields on far left
- Performance rate improvement
- Auto-save and save button
- Upload functionality
  - Excel documents

ContactMIIS Resource Center

www.contactmiis.info

Home	Onboarding	Registration	Materials	Meaningful Use	Training Center	Schools	Support	RSS

✓Training resources

✓MIIS Materials

✓Fact Sheets, Posters, Sample Languages

✓Registration

✓Onboarding Guidance

Coming Soon!

Training Schedule 2019

Adult Conference 2019 - MIIS

Upcoming Trainings:

Monthly Trainings available!

April 17- **Immunization Registry Webinar**

May 21- **School Webinar**

June, July, August- **In Person Trainings**

Location TBD

⭐ Keep an eye out for emails from the MIIS Helpdesk regarding training registration!

Contact Us!

MIIS Helpdesk

Phone (617) 983-4335

Fax (617) 983-4301

Email miishelpdesk@state.ma.us

Website www.contactmiis.info