

Massachusetts Immunization Information System
Using the MIIS to Improve Vaccination Rates at Your Practice

PRESENTED BY TRICIA CHARLES

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Disclosure

I, Tricia Charles 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.

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Our Agenda/Objectives Today

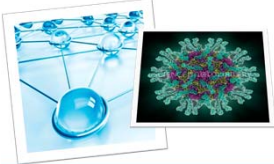
- Overview of the immunization registry**
- Evidence-based strategies using the MIIS to improve vaccination rates**
- Improving MIIS Data Quality**
- Coming enhancements**

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Overview of the Immunization Registry

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When our body is infected with a virus or bacterium, our immune system will identify, target and often prevent the invading organism from flourishing and making us ill. While our biological immune system fights off infections to keep us healthy, our nation is also defending against disease outbreaks and keeping us as a population protected. **Our nation's immune system, however, is not biologic, it is electronic and it has a name: Immunization Information System (IIS).**



<http://shotofprevention.com/tag/immunization-information-system/>

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Immunization Registry

School

Vaccine Management

Reports

Resources

MIIS Overview

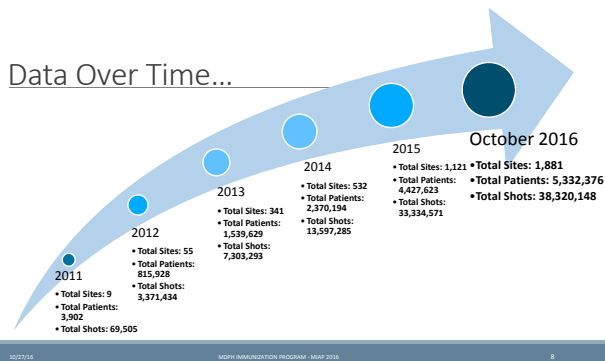
- Secure, confidential web-based system capable of electronic data exchange and direct data entry
- Consolidates immunization records over lifespan
- Assists providers with clinical decisions
 - Helps identify due or overdue immunizations
 - Prevents over/under immunization
- Includes practice management tools
 - Patient immunization and vaccine usage reports
 - **New! Assists schools with student immunization coverage and reporting**
 - Tracks over 3.2 million doses of vaccine distributed by MDPH annually
- Provides infrastructure for tracking essential information during public health emergencies

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For a single patient...



Data Over Time...



Evidence-Based Strategies Using the MIIS to Improve Vaccination Rates



Evidence-Based Strategies to Increase Immunization Rates

What Providers Can Do:

- Assess and vaccinate at every visit
- Standing Orders
- Immunization Champion
- Assessment and feedback
- Use reminder/recall systems

TASK FORCE ON COMMUNITY PREVENTIVE SERVICES RECOMMENDATIONS
www.thecommunityguide.org/vaccines/index.html

The Community Guide - What works to promote health

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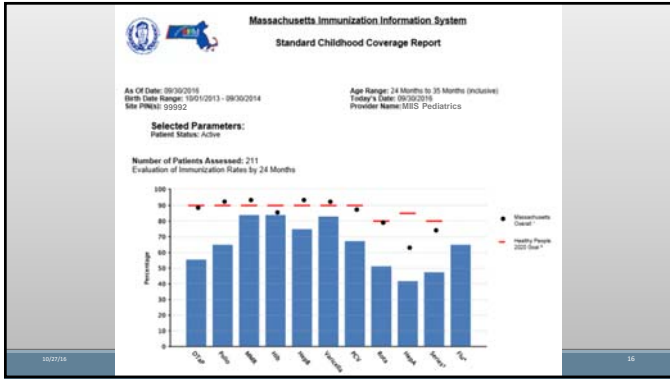
ASSESSMENT & FEEDBACK

Use case: Your practice wants to increase their immunization rates by implementing some evidence-based strategies. Because your practice is reporting data to the MUIS, a great way to use the strategy of *Assessment & Feedback* is to run a coverage report from the MUIS to assess your immunization rates.

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Coverage Report

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Vaccine Group	Up To Date Count	Up To Date Percentage	MA Overall ¹	Recommended Doses by 24 Months
DTaP	115	55.02%	89.0%	≥ 4 Diphtheria, tetanus, and pertussis vaccine
Polio	133	63.04%	93.7%	≥ 3 Poliovirus vaccine
MMR	175	83.73%	94.7%	≥ 1 Measles, mumps, and rubella vaccine
Hib	176	84.21%	86.0%	UTD ² Haemophilus influenzae type b vaccine
HepB	153	73.21%	94.7%	≥ 3 Hepatitis B vaccine
Varicella	173	82.79%	93.6%	≥ 1 Varicella vaccine
PCV	139	66.51%	88.6%	UTD ² Pneumococcal conjugate vaccine
Rota	105	50.24%	80.3%	UTD ² Rotavirus vaccine
HepA	89	42.50%	64.3%	≥ 2 Hepatitis A vaccine
Series ³	58	46.89%	75.4%	Receipt of all the doses of the following antigens: 3 Polio, ≥ 1 MMR, ≥ 3 Hib, ≥ 3 HepB, ≥ 1 Varicella, ≥ 1 PCV
Flu ⁴	139	66.51%		≥ 1 Flu received during the last flu season


Missed Opportunities: 122 (Count), 58% (Percentage)

Lets start here

Feedback

Reminder Recall Report

How to Improve the Quality of Your Data



- Inactivate patients who are no longer part of your practice
- De-duplicate patient records
- Report administered and historical data
- Correct data errors

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IMPROVE DATA QUALITY WITHIN THE MIIS & YOUR ELECTRONIC HEALTH RECORD

Use case: You have run your reminder recall report and mailed out your reminder letters. Since that time, several patients have come in for their immunizations. You run your coverage report again; however while your rates improved, your rates are still lower than you expected.

To troubleshoot this, you can run a practice population report to get a full list of your patients in an 'active' status within the MIIS.

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Practice Population Report

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Patient Status

Active Patients	Benefits of Inactivating Patients
Included in reports: <ul style="list-style-type: none"> ◦ Coverage ◦ Reminder Recall ◦ Patients Vaccinated ◦ Practice Population 	Will not be included in reports (but can be selected if desired)
Important to keep this current and aligned with your EHR	Will not be part of your practice denominator when running coverage reports
	Allows ease of managing reports(keeps patient lists more manageable)

Practice Population Report Input Parameters

This report displays patients who are associated to your Site PIN in the MIIS based on the parameters selected below.

Include Patients within range (choose one):

Age Range Birth Date Range

*Age Range (FROM): Months Months

*Age as of Date:

Limit Report By Patient Information

Limit Report By Provider Site Information

Forecast Print


Immunization Forecast*

Group Name	Earliest Date	Recommended Date	Overdue Date	Latest Date
HepB	11/14/2010	11/14/2010	11/28/2010	11/13/2029
DTaP	01/05/2015	01/05/2015	02/05/2015	11/13/2017
Tdap	11/14/2017	11/14/2017	12/14/2017	11/14/2130
PneumoPCV	11/14/2075	11/14/2075	12/14/2075	11/14/2130
PneumoPPSV	11/14/2076	11/14/2076	12/14/2076	11/14/2130
Polio	05/25/2015	05/25/2015	06/25/2015	11/14/2130
Flu	08/01/2016	08/01/2016	09/01/2016	11/14/2130
Varicella	11/07/2015	11/07/2015	12/07/2015	11/14/2070
HPV	11/14/2019	11/14/2021	11/14/2023	11/13/2037
MCV	11/14/2021	11/14/2021	11/14/2022	11/13/2032
Zoster	11/14/2070	11/14/2070	11/14/2071	11/14/2130

Forecast is based on data in the MIIS

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How to Improve the Quality of Your Data



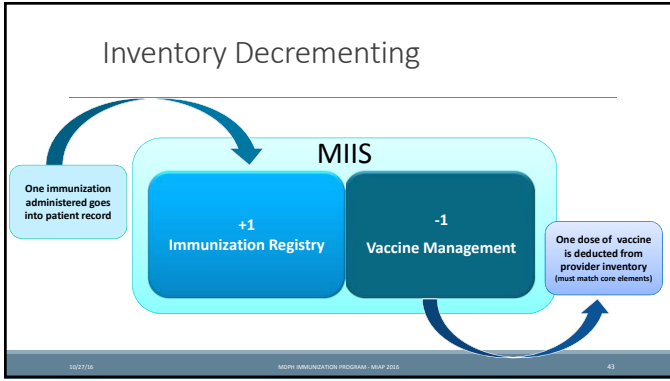
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HOW TO EFFECTIVELY MANAGE VACCINES THROUGH THE MIIS

Use Case:
 You are managing your state supplied vaccines in the MIIS. At the end of the month your vaccine manager begins an order. They realize that the MIIS did not decrement as many doses as you had actually administered.

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Vaccine Order – Hep-B Peds

Vaccine	Packaging	Trade Name	NDC	Lot #	Calculated Current Inventory	Refrigerator Count	Doses Administered										Total Doses Administered					
							Age <1	Age 1-2	Age 2-5	Age 6-11	Age 12-17	Age 18-29	Age 30-39	Age 40-49	Age 50-59	Age 60-69		Age 70-79	Age 80-89	Age 90-99		
HepB Peds	10 pack - 1 dose each	Recombivax HB - pediatric	00005-4981-00	321655AA	193		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
HPV9v	1 dose each	Gardasil 9	00006-4113-02	L304014	50		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3

- Practice actually administered 5 doses
- MIIS only calculated 2 doses administered
- **What happened to the remaining 3 doses?**

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Patients Vaccinated Report

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Data Quality Corrections

Vaccine errors should be corrected within your electronic health records

Once the edits are made in your EHR they will retrigger as updates to the MIIS*

Vaccine accountability can be managed directly through the order process

*EHR dependent



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New MIIS Functionality: Coming Soon

- Inventory Decrementing Tool
- Data Quality Dashboard
- Bi-Directional Data Exchange

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Inventory Decrementing Tool

Coming Soon! Early Winter 2017!

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Inventory Decrementing Report Output

Inventory Decrementing Report

Selected Site PIN: 12345 Date Given Range: 01/01/2016-03/31/2016
 Vaccine Type: Routine

Immunizations Remaining After Auto Decrementing

Total Immunizations: 3

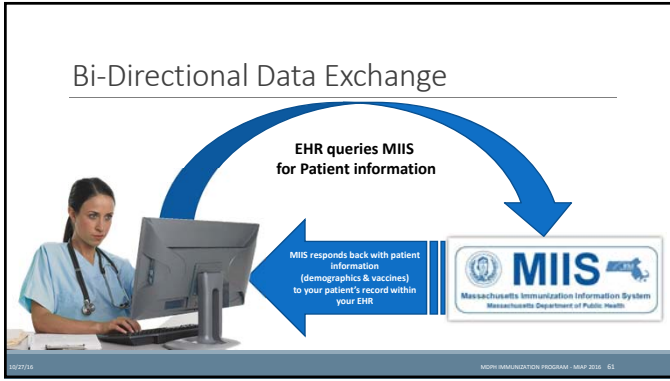
Administered / Historical	Vaccine	Lot Type	Lot Number	Date Given	Administered By	MIS ID	Patient Name	Reason for not deducting	Current Calculated Inventory	Action
Administered	DTPa	State	12345	01/01/2016			Meghan Collette	Vaccine did not match	5	Print
Administered	Hep B	State	00000	01/01/2016			Meghan Collette	Vaccine did not match	5	Print
Administered	Panacella	State	99999	01/01/2016			Meghan Collette	Vaccine did not match	5	Print

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Data Quality Dashboard

Coming Soon! Early Winter 2017!

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MIIS Helpdesk

617-983-4335
miishelpdesk@state.ma.us
 Contact MIIS Resource Center:
www.contactmiis.info

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