

# What Works

## To Improve Adult Immunization

### What They Did:

During 2011-2013, the Massachusetts Department of Public Health (MDPH), Massachusetts League of Community Health Centers, and JSI Research and Training Institute collaborated to:

- Increase adult immunization rates
- Increase the number of health centers submitting immunization information into the Massachusetts Immunization Information System (MIIS)
- Increase the use of evidence-based strategies, i.e., standing orders and provider reminders about immunizations due

The multi-prong approach of the project combined several interventions: Education was provided through webinars, meetings with key health center groups, training/technical assistance and through the distribution of information, templates and policies. More than 30 community health centers participated in one or more interventions. A baseline and post-intervention survey measured changes.

Information technology drove progress. Health center electronic health record immunization data were collected every night through the project's reporting platform, (called DRVS) and transmitted to MIIS.

Connecting community health centers to the state's immunization registry is one groundbreaking feature of the project. The project demonstrates to community health centers how using the state's immunization information system will help them achieve meaningful use benchmarks and move toward roster billing capability.

In 2010, Massachusetts mandated immunization reporting for all healthcare providers who administer vaccines in the state. MIIS became the official lifespan immunization registry for all Massachusetts residents. MIIS is secure and real-time, and will manage and track 3.2 million doses of vaccines distributed by MDPH each year.

By serving the interests of both the health department and community health centers, the project was a win-win for all participating agencies. When community health centers can achieve their meaningful use milestones and maximize reimbursement for the immunizations they provide, everyone wins.

## Massachusetts Department of Public Health and Community Health Centers

### A Win-Win Partnership to Improve Adult Immunization



**Vaccinating Adults in Community Health Centers**  
A Building Block for Healthy Communities

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**Background and Educational Interventions**

**Initiative Background**

Immunization can prevent needless morbidity and mortality associated with vaccine-preventable disease and one often overlooked during adult primary care visits. The Massachusetts Department of Public Health (DPH), Massachusetts League of Community Health Centers (The League), and JSI Research and Training Institute focused efforts during 2011-2013 on:

- increasing adult vaccination rates
- increasing the number of health centers reporting immunization information into the Massachusetts Immunization Information System (MIIS)
- increasing the use of evidence-based strategies to improve immunization rates (i.e., identifying orders and provider reminders about vaccines due)

**Educational Interventions**

In May 2012, health centers provided baseline data identifying opportunities for improvement. The Community Guide was used as a foundation for education and training. The Guide cites strong evidence of effectiveness in increasing vaccination rates through the use of standing orders, client reminder/health provider assessment and feedback, especially when implemented in combination. Content for educational interventions was developed into the following priority areas:

- 1) Advisory Committee on Immunization Practices (ACIP) adult immunization recommendations
- 2) Strategies to raise adult immunization rates
- 3) Processes for examining private and public insurance reimbursement
- 4) Purpose and benefits of the MIIS
- 5) Identifying and using the MIIS

**Findings from Survey Analysis Comparing Baseline and Endline**

Comparing baseline and endline health center responses on evidence-based strategies for improving vaccination rates, there were increases in two areas:

- 78% of health centers using adult vaccine standing orders to ensure health care quality (up from 67%);
- 75% of health centers using medical records to alert providers of vaccinations due (up from 54%).

**Community Health Center Pooled Analysis of Baseline and Endline Survey Responses (n=40 centers)**

Strategy	Baseline (%)	Endline (%)
Standing orders	67	78
Medical records	54	75

**Massachusetts Immunization Information System (MIIS) - Usage of the State Lifespan Immunization Registry**

There are currently 5 health centers with 11 sites reporting vaccination data daily through the MIIS. Baseline of "0"

**Main Outcome Measures: Adult Vaccination Rates From Four Community Health Centers, 2011 and 2013**

Vaccine	2011	2013
HPV - females 3 doses, 18-26 y/o	15%	32%
HPV - males 3 doses, 18-26 y/o	0%	3%
Influenza, 18+ y/o**	25%	32%
PPSV23, 65+ y/o	44%	48%
Tdap, 18+ y/o	15%	32%
Zoster, 60+ y/o	4%	14%

**Community Health Center Data Reported to the MA Immunization Information System (MIIS) - the State Lifespan Immunization Registry**

- 265,246 adult vaccinations in the Massachusetts Immunization Information System (MIIS) baseline of "0"
- 52,802 adult patients in the MIIS, baseline of "0"

**Community Health Center Flu Clinic**

**Evidence-based Strategies to Improve Adult Vaccination Rates**

- ✓ Assess and review your vaccination rates regularly
- ✓ Understand your electronic health records' recall and reminder capabilities
- ✓ Utilize Best Practices
  - Provide vaccination and offer vaccines on the same day
  - Rely on policies and standing orders
  - Offer incentives to patients for vaccinating

**What Are the 10 Recommended Adult Vaccines?**

Vaccine	Target Population
• Hepatitis A	• All
• Hepatitis B	• Pneumococcal
• HPV	• Td / Tdap
• Influenza	• Varicella
• Meningococcal	• Zoster

### Results:

Nineteen community health centers now fully transmit data to their state's immunization information system.

By September 2013, the following data have been reported by community health centers:

- 265,246 adult immunizations entered in MIIS; baseline was "0"
- 52,802 adult patients in the MIIS; baseline was "0"
- 78% of community health centers using adult immunization standing orders to ensure health care quality; up from 67%
- 75% of community health centers using medical records to alert providers of immunizations due; up from 54%

Through working with MIIS, community health centers were able to easily track and monitor immunizations administered, and develop strategies to improve their services. Listed below are the immunization rates from four health centers identified at baseline in 2011 and in 2013.

Vaccine	2011	2013
HPV – females 3 doses, 18-26 y/o	15%	32%
HPV – males 3 doses, 18-26 y/o	0%	3%
Influenza, 18+ y/o**	25%	32%
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As additional reporting capability expands within MIIS, health centers are being trained. In addition, 104 health center locations have registered with MIIS and utilize the MIIS modules on ordering and reporting inventory.

**massachusetts community health centers improving adult vaccination rates**

A FEDERAL PREVENTION & PUBLIC HEALTH FUNDED INITIATIVE 2011-2013

**the problem**

Too few adults in Massachusetts have adequate vaccinations to prevent diseases.

**the objectives**

To improve use of best practices and to report to the Massachusetts Immunization Information System (MIIS), a state immunization registry.

**the setting**

Community Health Centers

- represent one of the largest primary care networks in the state;
- reach low income and diverse populations; and
- help decrease health disparities including differences in vaccination rates seen in some populations.

**key findings\***

- # of community health center adult vaccinations in the Massachusetts Immunization Information System (MIIS): **265,246**
- # of community health center adult patients in the MIIS: **52,802**
- % of community health centers using adult vaccine standing orders to ensure health care quality: **78%**
- % of community health centers using medical records to alert providers of adult vaccinations due: **75%**

**evidence-based strategies to improve vaccination rates**

- ✓ Assess and review your vaccination rates regularly
- ✓ Understand the recall and reminder capabilities of your electronic health records
- ✓ Utilize best practices
  - Provide vaccination and offer vaccines on the same day
  - Rely on policies and standing orders
  - Offer incentives to patients

**ADULT IMMUNIZATION RATES**

\* Includes individual quality survey, educational interventions, resident survey, and data from MIIS. DATA CURRENT AS OF SEPTEMBER 30, 2013.

Source:  
<https://communityhealth.adobeconnect.com/p6toxxtb4z/?launcher=false&fcsContent=true&pbMode=normal>

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This "What Works" vignette is one in a series of examples collected by the Provider Workgroup of the National Adult and Influenza Immunization Summit. For more information or to nominate an example of "what works" to improve adult immunization, go to <http://www.izsummitpartners.org/>. This vignette does not constitute an endorsement from any of the organizations that participate in the Provider Workgroup or the NAIIIS.

