



Vaccinating Adults in Community Health Centers

A Building Block for Healthy Communities

Antonia Blinn, Massachusetts League of Community Health Centers;
Allison Hackbarth, JSI Research & Training Institute; Donna Lazorik, Retired, Massachusetts Department of Public Health



Background and Educational Interventions

Initiative Background

Immunizations can prevent needless morbidity and mortality associated with vaccine preventable disease and are 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 inputting vaccine information into the Massachusetts Immunization Information System (MIIS)
- increasing the use of evidence-based strategies to improve immunization rates (i.e., standing 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/recall, 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 maximizing private and public insurance reimbursement
- 4.) Purpose and benefits of the MIIS
- 5.) Enrolling and using the MIIS

Location of Community Health Centers in Massachusetts



What Are Community Health Centers?

In 1965, the nation's first community health center opened its doors in Boston, MA. Health centers care for patients of all ages and racial and ethnic backgrounds; represent a major source of care for the medically underserved; and provide care to anyone in need regardless of their insurance status or ability to pay. Health centers represent one of the largest primary care networks in the state; 50 health centers provide health care to more than 820,000 state residents through more than 285 sites statewide.

What Are the 10 Recommended Adult Vaccines?

- Hepatitis A
- Hepatitis B
- HPV
- Influenza
- Meningococcal
- MMR
- Pneumococcal
- Td / Tdap
- Varicella
- Zoster

Health Center Staff Providing Patient Education About Vaccinations



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.

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
 - ✓ Providers recommend and offer vaccines on the same day
 - ✓ Rely on policies and standing orders
 - ✓ Offer incentives to patients for vaccinating

Data Results

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 Paired Analysis of Baseline and Endline Survey Responses (n=40 centers)

Question	Baseline % (n)	End Line % (n)	Chi-Square Test p-value*	Fisher's Exact Test p-value*
Administer Flu Vaccine?	100% (50)	100% (40)		
Administer Hepatitis A Vaccine?	94% (47)	100% (40)		
Administer Hepatitis B Vaccine?	100% (50)	100% (40)		
Administer MMR Vaccine?	98% (49)	93% (37)		
Administer Pneumo Vaccine?	100% (50)	98% (39)		
Administer Td Vaccine?	96% (48)	100% (40)		
Administer Zoster Vaccine?	98% (49)	100% (40)		
Administer Male HPV Vaccine?	65.0% (32)	62.5% (25)	0.4306	0.3000
Administer Female HPV Vaccine?	92.5% (46)	82.5% (33)	0.8161	0.6789
Administer Hep A Vaccine?	95.0% (48)	100% (40)	0.1521	0.2468
Administer Varicella Vaccine?	92.5% (46)	87.5% (35)	0.4561	0.8683
Use Adult Vaccine Standing Orders?	66.7% (33)	77.5% (31)	0.2828	0.2054
Set EHR Flags?	53.9% (27)	75.0% (30)	0.0494*	0.0414*
Use Patient Reminders?	48.7% (24)	50.0% (20)	0.9104	0.5439
Record Vaccination Info in MIIS?	100% (50)	95.0% (38)	0.3862	1.0000
Access Vaccination Info in EHR?	65.0% (32)	66.7% (26)	0.9278	0.5632

*The p-value indicates whether the baseline and endline percentages are statistically different from each other. A p-value of <0.05 is an indication of a statistical difference in rates. The Chi-Square and Fisher's tests are comparably different, but should provide consistent results in terms of whether the percentages are statistically different. Fisher's is a more valid test when some questions have small numbers in the cells when there is a very high number of such and low number of such.

* Some (between 1 and 6) respondents did not answer this question.

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 was "0".
- 52,802 adult patients in the MIIS. Baseline of "0".

Community Health Center Flu Clinic



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

Obtaining data on vaccination rates has been an important part of understanding to what extent health centers can improve their rates. Below are the vaccination rates identified at baseline in 2011 and endline 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%
PPSV23, 65+ y/o	44%	48%
Tdap, 18+ y/o	15%	32%
Zoster, 60+ y/o	4%	14%

**Patients had at least one visit to a health center in the year of time prior to the reporting dates of June 30, 2011 and June 30, 2013

**Patients had at least one visit to a health center in the year prior to the reporting dates of June 30, 2011 and June 30, 2013 and the year during the prior flu season.

Areas and Opportunities for Further Improvement

- Continue sharing best practices and procedures among health centers
- Post pertinent information on The League's website - evidence-based strategies, templates of policies and procedures, standing orders
- Promote and encourage all health centers to enroll and use the MIIS
- Integrate adult immunization examples into The League's process improvement training sessions
- Identify ways for the continuation of educational interventions including replaying webinars, sharing updated vaccination rate data, DPH vaccine program updates and updates to ACIP recommendations
- Continue to identify ways to support health centers in obtaining maximum reimbursement for providing the 10 recommended adult vaccines through Medicaid and Medicare
- Support legislation which would reduce the costs associated with administering vaccines by expanding medical assistants' ability to administer vaccines