2015-2016 Learning Collaborative on Improving Quality and Access to Care in Maternal and Child Health Kickoff Meeting

Overview of the Massachusetts Immunization Program

November 20, 2015
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Massachusetts Department of Public Health
Overview of Discussion

- Massachusetts Overview: Immunization Program, Rates, Trends
- Effective Strategies to Increase Vaccination Coverage and Massachusetts State Experience
- 2015 Update and Recent Trends
- Key Takeaways for States
MA Perspective 2015

- Over 6.6 million population
- Lack county health department infrastructure to serve as a public health safety net
- Immunizations given in medical home and long relied on **partnerships** with providers to ensure vaccination there
- **Partnerships** with local and school health and community health centers
- Healthcare reform and PPHF grants have:
  - Enabled us to work with new partners (e.g. pharmacists, employers)
  - Enhanced our work with old partners in the public and private sector
  - Facilitated roll-out of our state of the art immunization registry
Massachusetts Immunization Program

- Disease Surveillance & Control
- Vaccine Distribution & Quality Assurance
- Perinatal Hepatitis B Prevention
- Assessment Activities
  - Provider assessments
  - School and child care surveys
  - BRFSS
  - National surveys
- Information, Education, Partnerships, and Outreach
  - Vaccine Hesitancy
- Special Initiatives
  - Pandemic & Bioterrorism Preparedness
- Registry Roll-out
  - Integrate with electronic health records (EHRs)
  - On going enhancements and data quality improvements
Immunizations in MA

- MA has led the nation in the timeliness of immunizations (Luman. AJPH 2005:951367-1734.)

- MA is in the top tier of states with the highest proportion of children enrolled in the VFC program that are vaccinated in their medical home (Smith. Pediatrics 2005;116:130-139)
  - Children vaccinated in medical homes have higher immunization rates
  - Other studies show children vaccinated in medical home have higher rates of receiving other preventive pediatric services

- MA has historically had infant vaccine coverage rates well above the national average and has been nationally ranked in the top 5 for the majority of the last 20 years until more recently.
## Estimated Vaccination Coverage with Individual Vaccines Among Children 19-35 Months of Age in MA, NIS 2013-2014

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>2013 Coverage</th>
<th>2014 Coverage</th>
<th>Percent difference</th>
<th>Rank 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>4+ DTP</td>
<td>93%</td>
<td>90%</td>
<td>-3.5</td>
<td>3</td>
</tr>
<tr>
<td>3+ Polio</td>
<td>98%</td>
<td>94%</td>
<td>-4.2</td>
<td>23</td>
</tr>
<tr>
<td>1+ MMR</td>
<td>96%</td>
<td>95%</td>
<td>-1.1</td>
<td>8</td>
</tr>
<tr>
<td>3+ Hib</td>
<td>98%</td>
<td>96%</td>
<td>-2.4</td>
<td>7</td>
</tr>
<tr>
<td>Hib-FS</td>
<td>90%</td>
<td>87%</td>
<td>-3.5</td>
<td>10</td>
</tr>
<tr>
<td>3+ Hep B</td>
<td>93%</td>
<td>95%</td>
<td>+1.8</td>
<td>12</td>
</tr>
<tr>
<td>HepB birth dose*</td>
<td>78%</td>
<td>75%</td>
<td>-3.2</td>
<td>29</td>
</tr>
<tr>
<td>1+ Var</td>
<td>95%</td>
<td>94%</td>
<td>-1.1</td>
<td>9</td>
</tr>
<tr>
<td>3+ PCV</td>
<td>97%</td>
<td>96%</td>
<td>-1.0</td>
<td>8</td>
</tr>
<tr>
<td>4+ PCV</td>
<td>91%</td>
<td>89%</td>
<td>-2.0</td>
<td>5</td>
</tr>
<tr>
<td>2+ HepA</td>
<td>63%</td>
<td>64%</td>
<td>+1.6</td>
<td>5</td>
</tr>
<tr>
<td>2+ Rotavirus</td>
<td>84%</td>
<td>80%</td>
<td>-3.7</td>
<td>8</td>
</tr>
</tbody>
</table>
# MA Flu Vaccination Rates

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Everyone 6 mos+</td>
<td>53%*</td>
<td>#3 55%</td>
<td>47%*</td>
</tr>
<tr>
<td>Children 6 mos – 17 yrs</td>
<td>72%</td>
<td>#2 76%</td>
<td>59%</td>
</tr>
<tr>
<td>- Children 6 mos – 4 yrs</td>
<td>87%</td>
<td>81%</td>
<td>70%</td>
</tr>
<tr>
<td>- Children 5 – 12 yrs</td>
<td>72%</td>
<td>#3 78%</td>
<td>62%</td>
</tr>
<tr>
<td>- Adolescents 13 – 17 yrs</td>
<td>61%</td>
<td>#1 71%</td>
<td>47%</td>
</tr>
<tr>
<td>Adults 18 +</td>
<td>49%*</td>
<td>50%</td>
<td>44%*</td>
</tr>
<tr>
<td>- Adults 18 – 64 y/o</td>
<td>45%*</td>
<td>45%*</td>
<td>38%*</td>
</tr>
<tr>
<td>- Adults HR 18 – 64 y/o</td>
<td>58%</td>
<td>53%</td>
<td>48%</td>
</tr>
<tr>
<td>- Adults 50 – 64 y/o</td>
<td>51%</td>
<td>53%</td>
<td>47%*</td>
</tr>
<tr>
<td>- Adults 65+</td>
<td>64%*</td>
<td>67%</td>
<td>67%*</td>
</tr>
</tbody>
</table>

*Statistically significant

Source: 2014-15 National Immunization Survey (NIS) and Behavioral Risk Factor Surveillance System (BRFSS)
Estimated Vaccination Coverage with Tdap, MCV4, and HPV among Adolescents 13-17 years, MA 2008 – 2014

- Tdap
- MenACWY
- 1 HPV - Females
- 3 HPV - Females
- 1 HPV - Males
- 3 HPV - Males*

*NIS Data, CDC

*No data available MA 2012
Effective Strategies to Increase Vaccination Coverage

- **Increasing Access to Vaccines**
  - Medical home, other settings
  - Remove financial barriers

- **Patient reminder/recall systems**
  - Reminders or recalls
  - Via telephone, letter, postcard

- **Provider reminder systems**
  - Reminder to MD that a patient is due
  - Note in pt charts, reminders in EHR

- **Standing orders**
  - Enables vaccination w/o direct MD order
Universal Vaccine Distribution

- MA was historically always a universal vaccine purchase state until the introduction of HPV vaccine.
  - Became universal-select for HPV, 2nd dose MCV4, and catch-up adolescent vaccines

- **Vaccine Trust Fund** (MGL Chapter 111, section 28N) enacted in February 2014
  - Vaccine Funding: Ensures stable funding for all childhood vaccines using an assessment of health plans.
  - Immunization Registry: Ensures adequate funding for maintenance of registry (MIIS).
  - Reimbursement: Ensures adequate benefits for vaccines and their administration.

- As of November 1, 2015 MA is now a fully universal distribution state again.
Massachusetts Immunization Information System (MIIS)

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
  • tracks over 3.2 million doses of vaccine distributed by MDPH annually

Provides infrastructure for tracking essential information during public health emergencies
MIIS Usage Over Time

2011
- Total Sites: 9
- Total Patients: 3,902
- Total Shots: 69,505

2012
- Total Sites: 55
- Total Patients: 815,928
- Total Shots: 3,371,434

2013
- Total Sites: 341
- Total Patients: 1,539,629
- Total Shots: 7,303,293

2014
- Total Sites: 532
- Total Patients: 2,370,194
- Total Shots: 13,597,285

October 1, 2015
- Total Sites: 1,022
- Total Patients: 4,061,005
- Total Shots: 30,916,771
Key Immunization Partners in MA

- Massachusetts Chapter of the AAP’s and AAFP’s Immunization Initiative
- Massachusetts Medical Society
- School and Local Health
- MA League of Community Health Centers
- State Medicaid Agency
- UMMS Center for Health Care Financing
- MA Chapter of the American Congress of Obstetricians and Gynecologists (ACOG)
- MA Pharmacy Association
- WIC and MDPH high risk maternal child health programs
Established in 1995, the MCAAP Immunization Initiative (Initiative) is a non-profit, private-public partnership, dedicated to ensuring that children and adolescents in Massachusetts are fully immunized against vaccine preventable diseases.

The Initiative accomplishes its mission by:

- Sponsoring educational activities for healthcare professionals,
- Communicating best immunization practices,
- Supporting the development of the Massachusetts Immunization Information System (MIIS),
- Collaborating with organizations to identify and overcome obstacles to statewide distribution and administration of vaccines to children,
- Working with Massachusetts executive and legislative leadership, as well as state agencies, to develop programs and legislation to fund, manage and distribute vaccines to children throughout Massachusetts.

The Initiative’s membership numbers more than 90 and includes physicians, nurses, public health officials, and representatives from organizations interested in improving immunization practices and immunization rates throughout Massachusetts.

The Initiative’s Advisory Committee meets three to four times per year to discuss current immunization recommendations and practices.
MA Public Clinic Billing Project

- For 10% fee, CHCF at Commonwealth Medicine electronically bills the participating plans and distributes payments to public providers
  - 10 private health plans, MassHealth and Medicare Part B participate
- Cities and towns can bill contracted plans for the:
  - Administration of state-supplied flu vaccine to individuals ages 6 months and older
  - Cost of purchasing and administering all recommended vaccines to adults
  - 177 public sector providers across the state participate, representing 214 out of 351 towns throughout MA
- > $1.6 million reimbursed to communities last flu season

[Diagram showing the process of submitting insurance forms, distributing payments, and sending payment explanations]

http://commed.umassmed.edu/flureimbursement
MA Educational Efforts

- Over 5,000 attendees at over 100 immunization program conferences and trainings
  - Annual Pediatric Immunization Skills Building Conference
  - Annual Adult Immunization Conference
  - Grand Rounds
  - Webinars
  - Regional Immunization Updates (7)
  - School Nurse, WIC and other agency trainings
- Advisories, Newsletters, eNewsletters
  - MCAAP Forum ShotClock (4 issues 20 articles)
  - MCAAP eNewsletters (6 issues 28 shorts)
- List serves (reach 9,000)
- Websites

Vaccine safety, vaccine hesitancy/confidence and identifying effective communication tools an increasing focus
Regional Immunization Updates 2015

- 7 Regional Immunization Updates and 4 corresponding webinars with 854 people attending the in person trainings and an additional 279 participating in the webinars.
- Half day program at different locations throughout the state.
- Topics included: VFC compliance training; vaccine storage and handling; immunization registry information; schedule updates; Massachusetts school requirements; HPV vaccine information; and epidemiology of vaccine preventable diseases, including information on the national measles outbreak.
- Providers appreciate these Immunization Updates because they can get the most up to date immunization information in one place and meet their annual VFC training requirement.
Religious and Medical Exemptions Among Kindergarten Students, MA 1992-2014

% with Exemptions

- Total Exemptions
- Medical Exemptions
- Religious Exemptions

Source: MDPH Annual Kindergarten Immunization Survey

N=1,064  N=803  N=261

Year

MA Immunization Update, MIAP Oct. 2015
School Immunization Rates Available on-line, by school

- Immunization and exemption rates, by school, available on our website for kindergarten and grade 7.
- Schools with fewer than 30 students in the reported grade are not included.
- Initial posting of kindergarten data in January generated attention from the press, resulting in more than 14,000 downloads in February!
- Data from 2014-15 school year posted in June.
- Still to come: childcare center, preschool and college rates.

Key Takeaways For States

- If feasible, establish stable and sustainable funding mechanism for a universal childhood immunization program.
- Develop close working relationship with your AAP/AAFP.
- Develop a multifaceted educational campaign targeting providers.
- Aggressively promote use of your IIS.
- Establish mechanisms to allow for billing of immunization services in the public sector.
Questions?