Rising to the Challenge: Leveraging Partnerships and Data to Improve Immunization Rates

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Childhood Immunizations in Maine:
Leveraging Multi-Organizational Partnerships to Achieve Shared Goals

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CHILD HEALTH PROGRAM,
DEPARTMENT OF COMMUNITY
HEALTH IMPROVEMENT
Maine

• Largest state in New England
  - 16 counties
• Population 8\textsuperscript{th} lowest and the oldest in U.S.
  - Total population 1.33M
  - Concentrated in southern and central areas
  - 18\% ≥65 years
• Non-traditional public health infrastructure
  - No county health departments
  - Two city health departments
  - 8 public health districts
  - 1 tribal health district
• Ranked 15\textsuperscript{th} healthiest state*

*2015 America’s Health Rankings
MaineHealth

“Working together so our communities are the healthiest in America”

- Not-for-profit
- Integrated family of healthcare organizations:
  - Community hospitals
  - Ambulatory practices (primary and specialty)
  - Long-term care facilities
  - Home health agencies
  - Support services
- Serve 11 of Maine’s 16 counties (75% of the state’s population)
- Ranked among the top 100 integrated healthcare delivery networks in the U.S.
- Dedicated to the “Triple Aim”
  - improve population health
  - reduce per capita cost of care
  - enhance the patient experience
- Focus on improvement in community health, clinical care, patient safety, education, healthcare policy and research
MaineHealth Members and Affiliates

- Franklin Community Health Network
- Waldo County General Hospital
- Western Maine Health
- Pen Bay Medical Center
- Lincoln County Healthcare
- MaineHealth Accountable Care Organization*
- Maine Medical Center
- Synmed
- Maine Behavioral Healthcare
- NorDx
- LincolnHealth-Miles Campus
- LincolnHealth-St. Andrews Campus
- St. Mary's Health System**
- Memorial Hospital
- HomeHealth Visiting Nurses
- Southern Maine Health Care
  - SMHC-Sanford Medical Center
  - SMHC-Biddeford Medical Center
- MaineGeneral Health**
- Mid Coast-Parkview Health**
- New England Rehabilitation Hospital of Portland**

*Part of the MaineHealth family
**Affiliates
Why Childhood Immunizations?

- Critical primary care/preventive health service
- Public health success and population health impact
- Cost-effective
- Widely recognized child health measure:
  - Healthy People 2020
  - America’s Health Rankings
  - Payers (performance and compensation)
- Strategic priority or area of concern
- Positioned to collaborate for statewide change
- MaineHealth Health Index (1 of 7 health improvement priorities)
The Landscape

• Challenges
  - Maine ranked 41st for childhood immunizations in 2010 (NIS)
  - Lack of statewide coordinated leadership
  - Data accuracy and accessibility
  - Workflow strain and increased quality improvement and reporting burden on ambulatory practices

• Opportunities
  - Universal Childhood Immunization Program (2012)
  - Increased focus on health information systems integration, meaningful use, quality improvement, accountable care, patient-centered medical home
  - Improved research/document best practices
  - Public/Private interest and collaboration
  - Improving Health Outcomes for Children (IHOC)/CHIPRA Grant

MaineHealth
The Partners

- IHOC/CHIPRA Grant – MaineCare
- Maine Quality Counts - First STEPS
- Maine Immunization Coalition
- Maine Vaccine Board
- Maine Immunization Program
- Maine Office of Information Technology
- ME Primary Care Association
- ME Chapter of the American Academy of Pediatrics
- ME Academy of Family Physicians
- Muskie School of Public Service, USM
- Maine Child Health Improvement Partnership
- Maine Health Management Coalition

[Logos of various organizations]
First STEPS

- 4 year child health and preventive screening quality improvement initiative
- Targeted high-volume practices serving children covered by Maine’s Medicaid program
- Childhood immunizations was 1 of 4 phases
- Nine-month modified IHI-style collaborative (2011-2012)
- Monthly coaching calls, data collection, learning sessions
- 24 clinical teams – 2 inpatient, 22 outpatient
- Monthly PDSA Cycles:
  - Reminder/Recall
  - Tracking Refusals
  - Moved or Gone Elsewhere (MOGE)
  - Data Entry/Reconciliation
  - Missed opportunities (acute visits)
  - Standing orders
  - Patient education materials
  - Provider education
  - Immunization record review/Point of Care reminder for physician

The PDSA Cycle for Learning and Improving

Act
- What changes are to be made?
- Next Cycle?

Plan
- Objective
- Question and predictions (why)
- Plan to carry out the cycle (who, what, where, when)
- Plan for data collection

Study
- Complete the analysis of the data
- Compare data to predictions
- Summarize what was learned
- Begin analysis of the data

Do
- Carry out the plan
- Document problems and unexpected observations
- Review and analyze the data
**Aim:** To improve preventive services for Maine's children.

Aim/Outcome: Between September 2011 & September 2012, improve immunization rates (2010) by ≥ 4% in practices that serve a high volume of MaineCare.

**Leaders as champions for change.**

**Team based and evidence based system of care with informed, engaged and competent staff.**

**Access to care.**

**Immunization information and tracking systems (HIT) that support improving immunizations.**

**Engage partners in improving immunization rates.**

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**Immunization Rates for:**
- 2-Year Olds
- 6 Year Olds
- 13 Year Olds
First STEPS - Immunizations
Goals and Evaluation Results

Within 12 months of beginning of learning collaborative, achieve an average increase of

4 Percentage Points

in overall immunization rates above baseline, across all First STEPS practices.

Sept 2012: 12 months after beginning of learning collaborative, data showed an average increase of:

5.1 Percentage Points

in overall immunization rates above baseline, across all First STEPS practices

Dec 2012: 15 months after beginning of learning collaborative, data showed an average increase of:

7.1 Percentage Points

in overall immunization rates above baseline, across all First STEPS practices

First STEPS – Immunization Rates Continued to Increase Two Years after Learning Session

Source: Improving Health Outcomes for Children (IHOC) Increased Immunization Rates for Maine’s Children and Adolescents Issue Brief, Muskie School of Public Service, November 2015, pending final approval
Building the Program

- First STEPS was the catalyst for major change
- Formation of MaineHealth Childhood Immunizations Task Force
- Strategic plan created using multi-sector approach to improvement:
  - Clinical
  - Community
  - Policy

- Goal 1: Increase Maine’s 7-series immunization rate of children 19-35 months:
  - from 67% (2010) to 82% or higher by 2016
  - to the highest in New England by 2016

- Goal 2: All MaineHealth member pediatric and family practices to achieve at least a rating of “good” on the Maine Health Management Coalition’s Pathways to Excellence (PTE) childhood immunization metrics on an annual basis by 2016
Building on the Success: Clinical Improvement Plan

- Used First STEPS change package as the platform for creating the MaineHealth Clinical Improvement Plan (CIP)
- Formalizes childhood immunization work with 40 pediatric and family practices
- Establishes baseline data, common standards for measurement, assessment, reporting, and support
- Compares results across the health system to identify opportunities for improvement
- Aligns MaineHealth efforts with state and national quality program requirements
- Recognizes practices for their hard work and improvements
- Required buy-in from leadership, practices, and providers
  - In-person meetings and presentations
  - Written endorsements
  - MOUs
  - Access to practice-level immunization registry data
CIP: Implementation

- Run data reports from ImmPact immunization registry beginning in Nov ’13
- Meetings with member-owned practices serving high volumes of children and reporting immunization rates below those that would qualify for PTE’s Good Rating – complete First STEPS survey and ID areas of change
- Check-in meetings as requested by practices
- Reporting to MaineHealth Health Index, practices and leadership, public website
- Incentives and rewards distributed
CIP: Measures

- Maine Health Management Coalition’s (MHMC) Pathways to Excellence (PTE) Childhood Immunization Metrics
- Reflect the core set of federal childhood immunizations metrics (CHIPRA); comprehensive and stringent
- 10-series Immunizations up-to-date at age 2 years (at least 4 DTaP; 3 IPV, 1 MMR; 3 HiB; 3 Hep B; 1 VZV; 4 PCV; 1 Hep A; 2 or 3 RV; and 2 Flu)
- 3-series Immunizations up-to-date at age 13 years (3 HPV, 1 MCV and 1 Tdap/Td)
CIP: Reporting

• Use of ImmPact registry-based reporting
• MH staff has access to download practice-level reports from ImmPact for member-owned practices
• Compare to PTE scoring matrix; determine ranking (good, better, best)
• Results of the measures (immunizations up-to-date at age 2 and 13 years) to be reported in:
  - MH Health Index Report (annually)/Website (quarterly) – reported by member organization; aggregated data
  - SharePoint Site and Member Leadership emails (monthly) – data reported at practice-level; accessible within the system only
  - PTE Website – rankings; according to the posting schedule
SharePoint Site for Data Distribution

Welcome to the MaineHealth Childhood Immunizations Data Site

To access your childhood immunizations data, click on your organization's folder on the left (under libraries). If you would like to see the transparency data, please select that folder. For questions on the scoring and other resources, check out the resources folder.

If you have any problems with this site, please let the MaineHealth Childhood Immunizations Team know via email (emrhenriq@mmc.org) and we will fix them as quickly as possible.

Resources

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CIP: Supports and Resources

- First STEPS Change Package Toolkit (system index, checklist of improvement ideas, action planning and full change package as needed)
- Pediatric Practice Support Specialist – central role
- MaineHealth Childhood Immunizations Education and Training Program (clinical support staff)
- Centralized resources and programs – dependent on current evidence-base, needs of members, and practices’ personalized action plans

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A. First STEPS Immunization System Index

Practice Name: __________________________ Date: __________________________
Person(s) Completing: __________________________

Please circle your answer:

1. Yes or No. Have you identified a physician champion and an office manager or nurse champion to improve immunization rates?

2. Yes or No. Do you have a practice team that includes a physician champion, nurse, and office manager that meets at least once a month to review immunization data/quality metrics?

3. Yes or No. Have clinicians agreed upon, documented, and posted a standard immunization schedule for the practice?

4. Yes or No. Does the practice routinely use a reminder system for children who will be due for immunizations? Many practices/clinics call the patients who don’t keep appointments (i.e., no shows). However, this approach misses children who never make an appointment in the first place and is not adequate.

5. Yes or No. Does the practice routinely use a recall system for children in need of immunizations?

6. Yes or No. Does your practice routinely record immunizations electronically in ImmPact2 at the time of patient visits?

7. Yes or No. Does your practice routinely update patient information in ImmPact2 using MOGE (Moved or Gone Elsewhere) rules?

8. Yes or No. Does someone from the practice routinely assess the immunizations needs of each child before all visits (including non-preventive care) and alert the responsible clinician about those needs?

9. Yes or No. Does the staff document reasons why a due vaccine cannot be administered?

10. Yes or No. Does your office schedule “shots only” visits?

11. Yes or No. Does your office offer immunizations during evening, weekend and drop-in appointments?

12. Yes or No. Have clinicians agreed upon, documented, and posted a common immunization policy for the practice?

13. Yes or No. Has your practice implemented standing orders for all routine vaccinations?

14. Yes or No. Has your staff received clinical training or refreshers on storage, handling and proper immunization techniques and how to talk with parents that are hesitant about vaccination?

15. Yes or No. Has your staff received training on using a standard documentation form like the “AAP immunization refusal to vaccinate form” to record refusals?

For Questions 1-15, Total Yes _____ Total No _____

1 Systems Index adapted from a tool from the National Initiative for Children’s Healthcare Quality (NICHQ).
Pediatric Practice Support Specialist

• Runs and disseminates practice data monthly
• Creates and posts transparent data reports by organization monthly
• Compiles and disseminates best practices
• Conducts site visits
• Assists practices to identify improvement opportunities
• Develops customized improvement plans
• Serves as centralized communication channel for questions and issues
• Interfaces with PTE and other quality improvement organizations statewide to discuss and advocate for system needs

Eiren Menhennitt, Pediatric Practice Support Specialist, MaineHealth Accountable Care Organization (MHACO): emenhennitt@mmc.org; 207-482-7068
CIP: Rewards and Incentives

- Plaques
- Recognition in MaineHealth Publications
- Announcement published in local newspapers
- Letters to organizations’ senior leadership

MaineHealth Awards Practices for Achieving High Childhood Immunization Rates

MaineHealth would like to recognize practices that achieved a rating of “good,” “very good,” or “best” in childhood immunizations, according to the MaineHealth Childhood Immunization Program Clinical Improvement Plan (CIP) in 2015.

The CIP was created to achieve MaineHealth system-wide alignment of childhood immunization measures. The ratings for practices are in accordance with the Maine Health Management Coalition’s Rubric in Excellence (PTE) Program metrics, which are based on state and national benchmarks.

The practices that earned this distinction demonstrated their commitment to keeping Maine’s children healthy by immunizing them on time according to the Center for Disease Control and Prevention’s recommended immunization schedule. Congratulations to the following MaineHealth practices:

To learn more about MaineHealth’s efforts to improve childhood immunization rates in Maine, please visit our Facebook page: https://www.facebook.com/MaineHealth.
CIP: Lessons Learned

- Alignment of metrics across initiatives is critical – quality improvement fatigue is real for practices and providers; need to consider practice size in scaling metrics
- Need to set appropriate short and long-term targets based on recognized benchmarks and available data; plan for next steps if targets are reached early or not reached at all
- Make data transparent and regularly accessible – whether across organizations or statewide; competition drives improvement
- Need a robust immunization information system/registry that is utilized consistently statewide by all practices (at least by those you care about!)
- Reduce burden on practices: get metrics/practice reports from an HIT system and eliminate double data entry of vaccines into state registry/EMR (one point of data entry)
- Practices need ongoing training, support and coaching, especially with staff turnover (on both quality improvement methodology and teamwork as well as best clinical practices)
CIP: Lessons Learned #2

- Standard immunization schedule across practice(s) is important; standing orders can reduce missed opportunities
- System for sustainability and accountability after a quality improvement project ends is crucial to continued success – takes dedicated care and feeding; do not underestimate this resource need!
- One size does not fit all; though all practices are measured the same way, they implement various change processes differently; ability to personalize the plan according to practice’s unique characteristics and population is key
- Ask which rewards are meaningful to practices (not always $ or gifts)
- Methodology behind the CIP can be applied to other health systems’ work on childhood immunizations; can also be extended to other clinical areas
CIP: Results – Toddlers

MaineHealth Pediatric and Family Practice Immunization Rates for Children Up-to-Date by Their 2nd Birthday, December 2013* - September 2014 - September 2015

*MaineHealth began running data for the MaineHealth Childhood Immunizations Clinical Improvement Plan in December 2013
MaineHealth Pediatric and Family Practice Immunization Rates for Children Up-to-Date by Their 13th Birthday, December 2013* – September 2014- September 2015

*MaineHealth began running data for the MaineHealth Childhood Immunizations Clinical Improvement Plan in December 2013
CIP Results: PTE Ranking

MaineHealth Pediatric and Family Practice
Childhood Immunizations PTE Rank Status
by Member Organization, September 2015
Where Are We Now: Toddlers?

MaineHealth Pediatric and Family Practice Immunization Rates for Children Up-To-Date by Their 2nd Birthday by Member Organization, April 2016
Total Patients: 3076

SOURCE: IMMPACT
Where Are We Now: Teens?

MaineHealth Pediatric and Family Practice Immunization Rates
For Children Up-to-Date by Their 13th Birthday
by Member Organization, April 2016
Total Patients: 2888
April 2016

SOURCE: IMMPACT
In response to a national shortage of Haemophilus Influenza B vaccine in 2009, clinicians were encouraged to delay booster shots. These delays reduced Up-to-Date rates for the series graphed above.

In 2009, the National Immunization Survey began reporting a measure that more accurately estimated the true Up-to-Date rate in each state. These more accurate estimates (lines from 2009-2014) are not directly comparable to the older measure’s rates in 2007-2009.

- Maine’s rate in 2014 is significantly higher than the U.S. rate in 2014.
- Maine’s 2014 rate is also higher than the ME rates in 2012 and 2013.
- U.S. rate in 2014 is significantly higher than the U.S. rate in 2012.

See notes below.

Maine’s rate in 2014 is significantly higher than the U.S. rate in 2014.
- Maine’s 2014 rate is also higher than the ME rates in 2012 and 2013.
- U.S. rate in 2014 is significantly higher than the U.S. rate in 2012.
What Happens When You’ve Reached the Top?

Maine’s Childhood Immunization Rate is among the Highest in the U.S!

Maine’s estimated up-to-date immunization coverage of toddlers is 85%, which surpasses MaineHealth’s 2016 target of 82%!

Congratulations to the following MaineHealth member and affiliate organizations, and their practices, providers, staff and patients, on achieving a childhood immunization rate that ranks Maine among the best in the country!

MaineHealth Members
- Maine Medical Center
- Maine Medical Partners
- Lincoln County Healthcare
- Western Maine Health
- Home Health Visiting Nurses
- Franklin Community Health Network
- Waldo County Healthcare
- Pen Bay Healthcare
- Southern Maine Health Care

MaineHealth Affiliates
- NMC Physician–Hospital Organization
- MaineGeneral Health
- Mid Coast Health Services
- St. Mary’s Health System

Keep up the good work: Protect our children and our communities by immunizing on time, every time!

Visit VaxMaineKids.org or find us on Facebook to learn more.
Where Do We Go From Here?

- Update Clinical Improvement Plan
  - New targets, aligned with MH Health Index
  - Add adolescent focus
  - Reinvigorate leadership endorsements
- Assess impact of dissolution of MaineHealth’s relationship with the Maine Health Management Coalition
- Dedicate resources and activities to increasing adolescent immunization rates
- Revamp MaineHealth’s Childhood Immunization Education and Training Program
- Bright Spots Survey – how best to use this moving forward?
- Manage expectations around growth of current childhood immunization rates for MaineHealth practices and state; do not rest on laurels…maintenance is key!
Thank You!

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