Maine's Improving Health Outcomes for Children Project (IHOC): Child Health Care Measurement Activities

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Improving Care and Proving It!
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Maine IHOC
Data Collection Plan

CHIPRA Quality Demonstration Activities:

- Collect and Report IHOC Measures List:
  - Initial Core Set of Children's Health Care Quality Measures
  - Early and Periodic Screening, Diagnosis, and Treatment (EPSDT)
  - Additional Clinical Measures (e.g. HPV immunization, asthma controller medications)
- Collaborate with providers, health systems and professional associations to align and promote data collection efforts across the state
- Enhance Health Information Technology Infrastructure to Support Measurement Activities

Maine IHOC
Data to Support Measurement Activities

- Claims-based: Integrate selected (to-be-determined) IHOC measures into utilization review and primary care performance incentive payment reports to practices serving MaineCare members (Maine's Medicaid and CHIP Program)
- Registry-based: Pilot improved registry data collection and reporting with practices participating in Maine Quality Counts First STEPS (Strengthening Together Early Preventive Services) Learning Initiative (e.g. Initial Core Set Immunization Measures 5 and 6)
- Electronic Health Record (EHR): Pilot electronic, standard specifications (eMeasure) for data capture, data transfer, and calculation of measures (e.g. Initial Core Set Body Mass Index Measure 7) in collaboration with HealthInfoNet (Maine's designated Health Information Exchange) and the pediatric practices participating in Maine's multi-payer Patient Centered Medical Home (PCMH) Pilot

Maine IHOC
Immunization Registry and Measurement Activities

- First STEPS Phase I: Raising Immunization Rates & Building a Patient Centered Medical Home (Sep 2011 – Apr 2012)
  - 24 clinical teams with 96 physicians
  - 8 month learning initiative comprised of learning sessions, Plan-Do-Study-Act cycles, monthly reporting on immunization rates, and practice improvement coaching
  - Collectively providing care to 30,666 patients enrolled in MaineCare*
- Immunization Measurement in Action
  - Most practices enter patient level immunization data into Maine's Immunization Registry
  - Practices receive monthly practice-level reports to measure progress and inform practice level quality improvement efforts
  - IHOC improvements made to the registry to support measurement, to date:
    - Up to Date Indicator
    - MaineCare client selection option
    - Affiliate Functionality to associate locations

*Source: DHHS, Office of MaineCare Administrative Data 2010

Maine IHOC
Registry-Based Measurement Accomplishments

- Monthly IHOC reports generated important feedback from practices resulting in improved data quality and ability to measure change:
  - More accurate client record keeping (e.g. increased entry of dose data into registry and the use of “Moved or Gone Elsewhere”)
  - Enhanced and improved accuracy of client immunization reports (e.g. identified and fixed problem of all children appearing as up to date on rotavirus)
- Increased provider activities related to reminder and recall activities
- Average improvements in combined immunization rates for 2-year olds (+8%), 6-year olds (+2%), and 13-year olds (+9%) between August 2011 and April 2012; all participating practices achieved improved rates
- "IHOC's relationship with practices and institutions is succeeding as a population health initiative”

-Shawn Box, Assistant Director / IIS Project Manager, Maine Immunization Program

Maine IHOC
Immunization Registry Measurement Challenges

Expanding usage of existing data systems to incorporate new measures (e.g. Initial Core Set Immunization Measures 5 and 6) and reporting features has presented unanticipated complexities and challenges:

- Competing priorities for registry's technical staff, program staff, and vendor continue to result in unanticipated delays in delivering enhancements (e.g. IHOC immunization measures Quick Pick feature)
- Technical expertise needed to make changes to registry system is highly specialized
- Details matter: For example, childhood immunization measure specifications from the Initial Core Set (Measure 5/NQF 0038) are not always aligned with recommendations from the Advisory Committee on Immunization Practices, limiting their usefulness for practice level quality improvement activities
- Communication is essential: For work to result in meaningful changes and enhancements, we must understand each other's language and intentions

Maine IHOC: Building the HIT Infrastructure to Support EHR Measurement

Understanding the EHR landscape informs development of a state-wide HIT infrastructure that supports EHR measurement:

- EHR measurement activity is dependent on the adoption of EHRs
  - EHR adoption is higher in pediatric and family practices (65%) than in ambulatory settings overall (49%)
- Measurement activity must be defined & planned for unique EHR's
  - Many different EHR's used; three EHR products (different versions) used by 50% of practices
  - Remaining 50% use a wide variety of EHR vendors and products
- >33% of practices have a form of Bright Futures Guidelines built into or interfaced with EHR
  - Data may not be entered directly into their EHR in a way that supports measure specifications

Maine IHOC: Building the HIT Infrastructure to Support EHR Measurement

Calculating Measures from the EHR is complicated and the “As Is Assessment” is including visits with five practices and their HIT teams; all associated with different health systems in the state. We anticipate learning:

- How do practices enter data into the EHR (e.g. is Body Mass Index entered as a number or percentile, or is a box checked; is the information entered into discrete fields or as free text)?
- How do practices currently interact with registries and exchanges at the practice, health system, and state levels?

Maine IHOC: Building the HIT Infrastructure to Support EHR Measurement

"As Is Assessment" questions continued

- Are there mechanisms in place to export the data from the EHR to the health information exchange?
- Are modifications to the EHR necessary to extract data for calculating specific measures?
- Are changes to the practice-level work flow necessary to render the data useable for calculating specified measures?

Maine IHOC: Testing the HIT Infrastructure to Send and Calculate eMeasures

The Test

- Can Maine's health information exchange move data into a health analytics reporting environment, calculate a specified measure, and exchange the data securely with the State of Maine?

Result

- Configured secure data exchange between State of Maine and HealthInfoNet
- Demonstrated calculation of one existing National Quality Forum eMeasure specification using popHealth* software tool

Challenges

- Some data elements did not come through initially; need to make sure test data includes all data elements required to calculate a measure
- Some configuration challenges were identified (e.g. need to resolve firewall issue)
- Technical expertise is necessary: Agilex, Lantana, HealthInfoNet, and popHealth's vendor (MITRE) all provided assistance to achieve success

*popHealth is a software tool that produces quality measures for Meaningful Use

Maine IHOC: Measurement Activities Provide Valuable Lessons

- Measures cannot be operationalized without reliable methods for capturing, collecting, calculating, and reporting the data.
- A data infrastructure must be designed and implemented to fully support the measurement activities without increasing burden.
- Data measurement is complicated, resource intensive, and requires understanding how data is used, captured, transferred, and calculated for each measure across multiple EHR's.
- Collaboration and communication with all partners (e.g. providers, practice settings, health systems, HIT teams, health information exchange) is essential to identify and address challenges, and create opportunities to operationalize child health care measurement.