Improving Health Outcomes for Children (IHOC)

# Child Health Quality Improvement in Maine

## Practice Survey Report 2011 - 2014

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# Executive Summary

## Background and Purpose

In February 2010, Maine and Vermont were awarded a five-year demonstration grant from the Centers for Medicare and Medicaid Services to improve care quality for children who are insured by Medicaid and the Children's Health Insurance Program (CHIP). In Maine, Improving Health Outcomes for Children (IHOC) established a public/private collaboration of health systems, pediatric and family medicine practices, associations, state programs and consumers. The collaboration was intended to 1) select and promote the collection and use of a set of child health quality measures; 2) build a health information technology infrastructure to support the reporting and use of quality information; and 3) transform the delivery of health services for children using a patient centered medical home model.

As part of this work, through the First STEPS (Strengthening Together Early Preventive Services) learning collaboratives, IHOC also provided medical practices with nationally-recognized tools, education and quality improvement support to enhance their ability to improve preventative services and provide evidence-based care for children. By aligning and coordinating child health quality infrastructure and quality improvement efforts, the goal of the IHOC initiative was to improve child health outcomes and reduce health care costs by improving access to actionable data for child health providers while reducing their administrative burden. In addition, child health metrics were used to help practices improve the quality of care, support value-based purchasing and increase early identification of special needs.

As part of the evaluation of Maine's IHOC initiative, the University of Southern Maine surveyed pediatric and family practices during the early stages of IHOC in 2011, and again during the final year of the initiative in 2014.The practice survey was designed to assess changes in knowledge and awareness of: child health quality measures; evidence-based clinical guidelines; recommended preventive screening tools; office systems and procedures; and the degree to which Maine practices use standardized protocols to monitor and improve children's healthcare quality.

## Methods and Response Rate

Web-based surveys were sent to practice managers at a sample of Maine pediatric and family practice sites (n=168 in 2011 and n=156 in 2014), who were invited via posted letter (2011) or email (2014), to participate in the survey. Follow-up phone calls were made to non-responding practices. In 2014, surveys were sent to the same sample of practices; phone and email inquiries were made to identify or confirm the most appropriate personnel to receive the survey. The response rate for the initial survey was 64 percent (108 of 168 practices) and 81 percent (127 of 156 practices) in 2014.

Practices responding to the 2011 survey represented more than one-quarter of family practices and nearly two thirds of all pediatric practices in the state. Together these practices served more than half (57%) of all children insured by MaineCare, or nearly 68,000 MaineCare children. In both years, respondents represent a broad distribution of practices across regions of the state and practice size and ownership, and include nearly two-thirds of practices that participated in any phase of IHOC's First STEPS learning collaborative.

This report summarizes the results of the 2014 survey and also provides a comparison of data from 2011 and 2014 to provide information on how statewide quality improvement has changed in Maine's child-serving practices. In addition, results also presented on 2014 only survey questions which cover IHOC and First STEPS-specific topics. Finally, we present information on comparisons of survey results by practice specialty (pediatric/family) and by participation in First STEPS (participation in any phase of First STEPS/no participation in First STEPS).

## Key Findings

Between 2011 and 2014, the landscape of Maine's child-serving primary care practices has evolved substantially, with statistically significant increases statewide in the: use of preventive health care targets for quality improvement; reported use of best practices for preventive care (e.g. pre-visit planning, contacting patients who are behind for preventive care); awareness of and participation in statewide quality improvement initiatives; and knowledge of policies aimed at improving the quality of health care delivered to Maine's children. Furthermore, there was a significant increase between baseline and follow-up in the proportion of practices reporting that they follow evidenced-based practices for preventive services addressed through First STEPS learning collaboratives including immunizations, lead screening, and autism. Improvement on these, and many other, quality improvement areas, was greater among practices that had participated in First STEPS, demonstrating the value of learning collaboratives in achieving positive change in the delivery of child health preventive care.

### Practice-Level Child Health Quality Improvement, 2011-2014

#### Use of Child Health-Specific Targets and General Quality Improvement Tools

Maine's child-serving practices use a variety of child health quality improvement targets, tools, and strategies. As part of the practice survey, respondents were asked to report on their use of specific practice-level targets to address prevention or treatment guidelines for children. Results reveal a significant increase from baseline in the total number of practices using targets for the delivery of preventive care and management of pediatric patients. Moreover, compared to baseline, in 2014, a significantly greater proportion of practices reported using multiple targets to address topics that were the focus of the First STEPS learning collaboratives including: developmental screening, autism screening, oral health screening, well child visits (WCVs), asthma treatment plans, vision screening, and hearing screening. In addition, although not statistically significant, more practices reported using practice-level targets for immunizations by age groups, lead screening, lead testing, and anemia screening.

While many practices reported using general quality improvement tools and strategies in 2014, use was not significantly different from 2011. However, significantly fewer practices in 2014 reported that they used financial incentives in child health quality improvement efforts. A comparison of pediatric and family practice respondents in 2014 found that pediatric practices were significantly more likely than family practices to rely a great deal on: clinical practice guidelines, measurement of patient/family experience of care/satisfaction, and monitoring practice performance using pediatric quality measures.

### Quality Improvement at Maine's Child-Serving Practices

There were significant differences between baseline and follow-up in the greater number of child-serving practices reporting the use of recommended quality improvement activities and standards of care such as 1) pre-visit planning, 2) identifying and contacting patients who are behind for preventive services, 3) checking immunizations systematically at all visits, 4) administering a lead screening questionnaire for children at ages 1 and 2, and 5) using an autism-specific screening tool between 16 and 30 months. For other standards of care, the change between 2011 and 2014 was not significant. However, by 2014, three-quarters or more of the responding practices reported meeting the standard of care all or most of the time for the following activities: 1) documenting preventive services and risk screening in charts, 2) reminding patients of upcoming appointments, 3) tracking referrals using paper-based or electronic system, 4) testing children insured by MaineCare for lead and anemia at recommended ages, and 5) using a developmental screening tool at ages 1, 2, and 3.

In these areas, practices that had participated in any phase of First STEPS were significantly more likely than other practices to report that they contacted patients who are behind schedule for preventive services and conduct pre-visit planning. Pediatric practices were significantly more likely than family practices to report conducting pre-visit planning and using an autism-specific screening tool between 16 and 30 months. Conversely, family practices were significantly more likely than pediatric practice to report administering lead screening for children between age 1 and 2.

## Targeted First STEPS Practice-Level Preventive Services Quality Improvement, 2014

The 2014 survey included questions on topics covered in First STEPS learning collaboratives: immunizations, general developmental screening, autism screening, lead screening, lead testing, healthy weight, and oral health. In order to evaluate the impact of the First STEPS program and assess the spread of quality improvement activities throughout the state, information was also collected on quality improvement approaches and practice integration of recommendations for preventive care in the above areas.

### Immunizations

Most (71%) of the responding practices review immunizations on a monthly (as compared to quarterly or annually) basis. Practices that had participated in First STEPS were significantly more likely (93% v. 64% for non-First STEPS practices) than others to review immunizations monthly. Pediatric practices were also significantly more likely (89% v. 64% for family practices) to review immunizations monthly than family practices.

## General Developmental and Autism Screening

About three-quarters of the responding practices reported conducting developmental screening at all recommended WCV (i.e. the 9-, 15-, 18- and 24/30-month visits). Sixteen percent of the practices indicated that they screen when surveillance demonstrates risk which is also considered a best practice.

Approximately 40% of practices reported using a validated general developmental screening tool: 25% use the Ages and Stages Questionnaire (ASQ); and 12% reported using the Parents Evaluation of Developmental Status (PEDS). Given that the ASQ and PEDS were purchased for practices who participated in First STEPS Phases II and First STEPS 2014, it is not surprising that practices reporting any participation in First STEPS were more likely to report using the ASQ and PEDS.

Autism screening is recommended at the 18- or 24/30-month visit and when surveillance demonstrates risk or a parent is concerned. Almost half (49%) of the responding practices reported that they screen for autism at the 18-month WCV. Nearly as many (37%) reported screening at the 24-month visit. However, significantly fewer practices (14%) reported screening for autism at the 30-month visit. Twenty-two percent of the respondents reported implementing the evidenced-based practice of screening when surveillance demonstrates risk. Practices that had participated in any phase of First STEPS were significantly more likely to report that they screen at the 18- and 24- month WCV than non-participating practices. Interestingly, First STEPS practices were significantly *less* likely to screen when surveillance demonstrates risk, possibly because standardized screening may identify children at risk before they are identified through surveillance.

## Oral Health and Healthy Weight

While survey results related to delivery of preventive oral health care and screening in primary care reveals statewide adoption of some best practices and process, there is still room for improvement. Only 26% of the responding practices always or frequently apply fluoride varnish efficiently and effectively and 41% reporting that they rarely or never apply varnish. Nearly 2 out of 5 practices (37%) always document oral health processes via the Electronic Health Record (EHR) or other automated system; an additional 35% of practices report frequent documentation. The majority of practices (83%) reported routinely (always or very often) integrating information for parents and caregivers about the importance of preventing oral health problems during WCVs and 93% regularly (always or very often) conduct an oral health risk assessment for children under 4 years of age.

In conjunction with the 2012-13 First STEPS learning collaborative on oral health and healthy weight, in August 2013, MaineCare began reimbursing oral health risk assessments for children under 3 years of age who do not have a dental home. While we do not know the rate prior to the policy change, in 2014, more than half (52%) of the responding practices reported always conducting the assessment and an additional 43% report administering the assessment very often. The large proportion of practices implementing the oral health risk assessment may be attributed, at least in part, to coordinated practice improvement initiatives and additional statewide efforts to clarify MaineCare policies on billing codes and reimbursement practices.

Survey data on referrals from primary care to dentistry also suggest an opportunity for continued quality improvement efforts. In 2014, the majority of practices reported referring to a local dentist always (53%) or very often (34%) when an oral health problem in a child is identified. These rates are lower than referrals

resulting from developmental or autism screens, and may reflect lack of access and availability of dentists that serve young children.

Practices' use of recommended healthy weight monitoring and prevention strategies in 2014 was relatively high, potentially reflecting the impact of both First STEPS and Let's Go!, a pre-existing initiative in Maine, also focused on healthy weight. In 2014, 89% of the practices always determine body mass index (BMI). Moreover, three-quarters (77%) of the practices reported always talking with parents about eating and physical activity and sixty-three percent always use the 5210 Healthy Habits Questionnaire. A smaller proportion of practices,just under half (49%), always use motivational interviewing techniques to further engage parents and families. Pediatric practices were significantly more likely than family practices to report calculating BMI. Pediatric practices and practices and First STEPS participants were significantly more likely to administer the Healthy Habits Questionnaire.

## Use of Data Systems to Track and Monitor Care

A primary goal of Maine's IHOC initiative was to build a health information technology (HIT) infrastructure to support reporting and the use of measurement to promote quality pediatric care. Part of this work included testing HIT solutions for generating clinical CHIPRA core child health measures from Maine's statewide immunization registry (ImmPact) and the state's health information exchange, HealthInfoNet (HIN). To inform this work, in 2011 the survey included questions about EHR adoption and interoperability; the use of ImmPact for tracking immunizations; and practice use of the HIN. The 2014 survey repeated some of these question to inform an assessment of changes in practices' implementation of HIT however, new questions were incorporated into the 2014 survey to provide information about practices' awareness and use of specific features or modifications to these data systems that became available during IHOC demonstration project.

### Electronic Health Records and Bright Futures

Statewide, significantly more child-serving practices had fully implemented EHRs in 2014 (94%), compared to 2011 (78%). Six in ten of the responding practices indicated that Bright Futures forms, guidelines for the delivery of Medicaid's Early and Periodic Screening, Diagnosis, and Treatment Services (EPSDT), were built into their EHRs. Increased use of EHRs and integration of Bright Futures into EHRs in pediatric and family practices may increase future opportunities to generate practice-level quality improvement measures or assist with the generation of measures a nd reporting through the Health Information Exchange (HIE).

### ImmPact - Maine's Immunization Registry

Nearly all responding practices (95%) in 2014 reported that they use the State of Maine immunization registry, ImmPact; these results mirror the data on the use of ImmPact collected in the baseline survey. A large majority of the responding practices use most of the available functions in ImmPact, e.g. patient immunization data entry (92%), to review patient up-to-date immunization rates (92%), per dose immunization inventory management (90%), to generate immunization coverage reports for the practice as a whole (84%) and for aggregate immunization inventory management (92%). Almost half (49%) of the responding practices reported that they always consult ImmPact to determine whether vaccinations were received at alternate sites. Forty-one (41%) of the practices reported using IHOC Quick Picks, reports developed as part of the IHOC initiative, to enable practices to generate IHOC/CHIPRA immunization

measures for their practice (32% reported that they did not know). It is not surprising that practices who participated in any phase of First STEPS were significantly more likely to report using the IHOC Quick Pick function than non-First STEPS practices (64% v. 36%).

### HealthInfoNet – Maine's Health Information Exchange

Nearly three- quarters of the responding practices (74%) reported that they use HIN, Maine's health information exchange. For those that used HIN in 2014, practices most commonly reported using it for care coordination (65%), to access information during emergencies (50%), for data collection for quality measures reporting (29%), and to email notification about care events (13%). Family medicine practices were significantly more likely to use HIN tools; 81% of family medicine practices compared to 56% of pediatric practices. Family practices were also significantly more likely than pediatric practices to use HIN to email notifications about care events, for data collection for quality measures/reporting, and to access information during emergencies.

### Financial Incentives for Quality Improvement

Financial incentives for performance on health care measures have the potential to positively influence primary health care quality. Compared to the 2011 baseline survey, in 2014, fewer practices (44% versus 56% at baseline) reported receiving financial incentives. Of the practices that reported receiving financial incentives, about half (48%) received incentives for performance related to asthma, diabetes, and immunizations. A little more than one-third reported receiving financial incentives related to healthy weight (38%) and access to care (36%).

## Awareness and Use of Maine's Child Health Measurement and Quality Improvement Initiatives

### MaineCare UR Reports

MaineCare provides data to participating practices about the quality of care provided to MaineCare members through quarterly utilization review reports (UR). MaineCare's UR reports are generated from claims and are intended to provide comparative performance information to practices for quality improvement and to serve as an educational tool. During the IHOC initiative, MaineCare added eight new child health CHIPRA/IHOC measures to these reports. In 2014, most (61%) respondents reported that their practices review UR reports when they are received, significantly *fewer* than in 2011 (71%). However, significantly more practices, 73% in 2014 compared to 56% in 2011, reported that they use UR reports to monitor quality of care for MaineCare patients. In addition, in 2014, significantly fewer practices reported that UR reports have little or no influence on practice operations. In fact, in 2014, the majority of practices reported that UR reports do have a moderate influence on practice operations; 52% at follow-up compared to only 31% at baseline.

### Familiarity with Statewide Child Health Quality Improvement Initiatives

The IHOC initiative was intended to build a sustainable child health quality infrastructure in the state. Early in the initiative, IHOC engaged in a number of strategies designed to facilitate the development this infrastructure including: establishing a list of child health measures in need of improvement; initiating

the First STEPS learning collaboratives to provide measure-driven QI support for practices; and aligned or integrated child health quality measures with other statewide quality efforts in the state such as Maine's Pathways to Excellence (PTE) public reporting program. In the 2014 survey, practices were asked about their familiarity with and participation in these initiatives. A higher proportion of the responding practices reported being very or somewhat familiar with PTE compared to First STEPS, IHOC, and the IHOC Pediatric Quality Measures —with 60% very familiar and 27% somewhat familiar with PTE. This result may be due to the fact that PTE was established several years before IHOC. One-third of the practices reported that they were very familiar with First STEPS and a quarter reported that they were very familiar with IHOC; fewer respondents reported being very familiar with IHOC Pediatric Quality Measures. Pediatric practices were significantly more likely than family practices, to report greater familiarity with IHOC, IHOC First STEPS, and the IHOC Pediatric Quality Measures. Not surprisingly, practices that had participated in First STEPS, were significantly more likely than other practices to report being very familiar with First STEPS.

### Public Reporting of Child Health Quality Measures

About one-third of the responding practices reported that they participated in practice-level measures reporting to PTE, as follows: 2 year-old immunizations (34%), 13 year-old immunizations (34%), and asthma (36%). However, about one-third of the responding practices reported that they did not know whether their practice reported child health measures to PTE, suggesting the need for additional outreach or training to educate practices about opportunities to report practice-level performance on child health quality measures.

### MaineCare Coding and Billing Changes

IHOC's First STEPS appears to have contributed greatly to practices' awareness of MaineCare coding and billing changes made during First STEPS in support of child health. Nearly half of the statewide reporting sample said that they were aware of coding and billing policy changes for oral health evaluation (45%) and for general developmental screening (43%). Slightly fewer reported familiarity with the changes for initial autism screening (39%) or autism follow-up (37%). However, for each of these items, a substantial proportion of responding practices, about one-third for each item, reported 'don't know,' suggesting the need for additional outreach. *First STEPS practices were significantly more likely than other practices to indicate awareness of the developmental and autism screening as well as autism follow-up policy changes. There were no significant differences in awareness of the MaineCare coding and billing policy related to oral health between First STEPS and non-First STEPS practices. This may reflect that the First STEPS oral health work built on and helped inform the existing program. 'From the First Tooth,' that was also informing and training other practices statewide about MaineCare oral health policy changes. Also, pediatric practices were significantly more likely than family practices, to be aware of the coding and billing changes for developmental screening.*

At the time of the follow-up survey, about 4 in 10 of the responding practices reported that they had made, were in the process of making, or planned to make changes in response to MaineCare coding and billing policy changes for general developmental screening, autism screening, and for autism follow-up. About 2 in 10 had not made changes and another 4 in 10 did not know. *First STEPS practices were significantly more likely to report making changes as a result of MaineCare policy changes for developmental screening, with 54% of First STEPS practices making or planning changes compared to 36% of the practices that had not participated in any phase of First STEPS.*

### Practice Interests in Future Quality Improvement Initiatives

In order to help inform future quality improvement initiatives in the state, the survey asked respondents to identify topics that their practice would be interested in covering in future learning collaboratives. The most common responses were: attention deficit hyperactivity disorder (ADHD) and developmental/autism screening (39%); adolescent health and healthy weight (33%); asthma and depression (32%):, adverse childhood experiences (ACE); care coordination; and WCV workflow strategies (28%). Practices that had not participated in any phase of First STEPS were significantly more likely to report an interest in a learning opportunity around developmental/autism screening (51% for non-First STEPS practices versus 28% for First STEPS practices). Moreover, family practices (58%) were significantly more likely than pediatric practices (19%) to report that their practice could benefit from a learning opportunity about developmental/autism screening than pediatric practices suggesting that further outreach on this topic to these practices may be needed. Pediatric practices were significantly more likely (50%) to indicate that their practice would benefit from a learning opportunity focused on care coordination than family practices (27%).

## Matters for Consideration and Next Steps

Results indicate that IHOC and First STEPS have contributed to broader awareness, knowledge and use of many child health quality measures and related quality improvement guidelines and strategies among pediatric and family medicine practices. For example, compared to 2011, significantly more practices are reporting that they are following recommended office practices (such as pre-visit planning and identifying and contacting patients who are behind schedule for preventive care) and delivering recommended preventive care (e.g. checking immunizations systematically at every visit, administering a lead screening questionnaire for children at age 1 and 2, and using an autism-specific screening tool between 16 and 30 months of age). Furthermore, the data show that practices that participated in any phase of First STEPS improved more than other practices, suggesting that Maine IHOC's model—learning collaboratives in conjunction with state policy change and infrastructure improvements-- can help to bring about positive changes among participating practices, as well as practices statewide.

The results of this survey can be used to help inform future child health quality improvement initiatives. Primary care practice improvement efforts that incorporate system-level changes (i.e. billing and coding changes and practice-level HIT reporting solutions) with practice-level learning collaboratives can be effectively used to improve the delivery of preventive care, participation in public reporting, awareness of and change in response to MaineCare policy changes. However, the survey results also suggest areas in need of continued advancement. For example, the results point to opportunities to further improve awareness of MaineCare UR reports, awareness of and use of the ImmPact's IHOC Quick Picks functions, and awareness of MaineCare coding and billing policies, particularly among child-serving family practices and practices that have not participated in First STEPS.

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## Introduction

In February 2010, Maine and Vermont were awarded a five-year demonstration grant from the Centers for Medicare and Medicaid Services to improve care quality for children who are insured by Medicaid and the Children's Health Insurance Program (CHIP). In Maine, Improving Health Outcomes for Children (IHOC) established a public/private collaboration of health systems, pediatric and family medicine practices (family practice), associations, state programs and consumers to 1) select and promote a set of child health quality measures; 2) build a health information technology infrastructure to support the reporting and use of quality information; and 3) transform the delivery of health services for children using measure-driven quality improvement within a patient centered medical home model of care.

As part of this work, IHOC provided medical practices with nationally-recognized tools and education and quality improvement support through the First STEPS (Strengthening Together Early Preventive Services) learning collaboratives to enhance their ability to provide evidence-based care and improve preventive care for children. To encourage and support practice-level quality improvement and sustainability, IHOC also identified and helped implement MaineCare payment and policy changes, and HIT solutions to minimize reporting burden while aligning child health quality work with other quality and public reporting initiatives in the state. Ultimately, by building a more streamlined, and coordinated child health quality infrastructure, IHOC sought to improve access to actionable data for child health providers while reducing their administrative burden, improve care quality, support value-based purchasing, increase early identification of special needs, and ultimately to improve child health outcomes and reduce health care costs.

To evaluate the degree to which IHOC's practice-related quality improvement goals were achieved statewide, the Muskie School of Public Service conducted baseline and follow-up surveys in 2011 and 2014 of Maine pediatric and family practices to assess their awareness, knowledge and use of child health quality measures and evidence-based tools. This report summarizes the 2014 survey results in comparison to 2011 to assess how practice-level quality improvement and data efforts have changed statewide during the period of the IHOC project.

## Description of the Survey

In order to gather information from Maine practices about child healthcare quality improvement activities and their awareness and use of IHOC quality measures, the IHOC evaluation team fielded a baseline survey in the winter of 2011-2012, and a follow-up survey in the fall and winter of 2014.

The surveys were specifically intended to:

- Conduct surveillance about
  - Children's health QI activities at Maine practices,
  - How practices use data, clinical guidelines and office systems to monitor and improve children's healthcare quality,
  - Practice awareness and use of IHOC quality measures;
- Measure changes in pediatric quality improvement practice patterns and systems in Maine over time;
- Measure specific changes in recommended preventive service topic areas that had been the focus of the First STEPS learning collaborative[1] and Maine to assess how First STEPS practices compared with other practices statewide and to assess spread; and
- Identify gaps and help define the direction of future quality improvement work.

## Survey Development

The survey was intended to inform Maine's Improving Health Outcomes for Children (IHOC) initiative and provide information about pediatric and family practice use of office systems and clinical or other data to inform quality improvement efforts. The survey is part of IHOC's local evaluation to assess the statewide impact of standardizing measures, expanding HIT for data collection/reporting and building medical homes through pediatric-focused learning sessions. The survey was designed to answer the following key questions:

- To what extent are Maine's child health providers aware of and using data for quality improvement in their practices?
- How do pediatric quality measures and incentives influence practice change and quality improvement?
- How prepared are Maine's child health providers to use enhanced HIT systems?
- Are MaineCare reports meaningful to providers, are there barriers to their use and how could reporting of measures be improved?

The evaluation team used these broad questions to develop and select specific survey items. To the extent possible, the evaluation team attempted to use questions from existing surveys based on literature review of practice quality surveys including those developed by the American Academy of Pediatrics. We also consulted with key stakeholders including IHOC physician consultants; medical directors and consultants at Maine DHHS; the Maine Chapter of the American Association of Pediatrics; and program managers responsible for administering program areas included in the survey, e.g. the Blood Lead Program of the Health and Environmental Testing Laboratory, and the Maine Immunization Program (both at the Maine Center for Disease Control and Prevention). Generally, our goal was to use the same survey questions in both years

1 The IHOC First STEPS learning collaborative was implemented across phases, with the first phase focusing on immunizations, the second on developmental, autism, anemia and lead screening, the third on healthy weight and oral health, and the fourth on developmental and autism screening for additional practices in the state.

to assess change over time. However, we made some modifications to the 2014 survey to clarify questions or response categories on the original survey where, based on 2011 responses, wording may have been misinterpreted or unclear. We also added questions in the 2014 survey that were not applicable or had not yet been identified in 2011 (e.g. awareness/use of IHOC measures list, ImmPact Quick Pick reports, recommended office systems for specific First STEPS preventive topic areas, and HIN features). Specific survey domains for the 2011 survey, some of which were revised, eliminated or supplemented in the 2014 follow-up survey, are listed below. The 2011 and 2014 survey instruments are available upon request.

### Original 2011 and 2014 Survey Domains

Practice Level Quality Improvement (Office Systems, Tools, Processes)

- Child Health Measures for monitoring and target setting
- Recommended preventive screening tools (e.g. Autism Screening, General Developmental Screening, Healthy Weight, Oral Health)

System or Statewide Child Health Quality Improvement

- Familiarity/Use of MaineCare UR Reports
- Financial Incentives for QI
- Use of Health Information Technology (e.g. Maine Immunization Registry, ImmPact)

Practice Characteristics (Practice Setting, Size, Ownership, EHR (Electronic Health Record) adoption and Medical Home recognition status

### New/Revised Items in 2014 Survey

- Familiarity with and use of Maine IHOC Pediatric Quality Measures
- Participation in PTE Reporting (new children's measures)
- Awareness of and Practice Changes resulting from MaineCare Coding and Billing Policy Changes
- Use of HealthInfoNet, Maine's Health Information Exchange (HIE) (added/modified questions from 2011)
- Interest in Future Learning Collaboratives on Specific Topical Areas

## Sample Development

The sample of practices to be surveyed was drawn in 2011 from MaineCare's database of all primary care practices participating in Primary Care Case Management that served children insured by MaineCare as of December 2009 (N= 340). The initial sample was drawn using a stratified sampling frame to oversample practices serving children participating in Maine's Patient Centered Medical Home pilot program (N=21) in the IHOC First STEPS learning initiative (N=15), and other pediatric (N=25) and family practices (N=107) that serve a high volume of MaineCare children. The same practices were invited to participate in the 2014 survey.

## Survey Administration

The web-based surveys were administered by the Muskie School's Survey Research Center (SRC) using Snap®, a survey software program. Survey participation was voluntary. As an incentive to encourage practice participation, respondents completing the survey were added to a drawing to win one of three iPads (or in 2014, a choice of an iPad or a grocery store gift card of an equivalent value).

An initial recruitment letter was sent to each practice site to 1) describe the purpose of the survey, 2) identify or verify the identification of the site's Practice Manager, and 3) obtain the email address for the Practice Manager. In addition, staff phoned each practice where either the Practice Manager's identification or e-mail address was unknown and requested this information. The 2011 survey was launched in November when SRC staff e-mailed information about the survey and an individual survey link to each practice site. SRC staff also e-mailed reminders containing the survey link several times during the following eight weeks. SRC staff conducted follow-up phone calls to all non-respondents to encourage them to complete the survey. Because the initial response rate was lower than desired, this continued for an eight-week period. The 2014 follow up survey was administered in a similar fashion; however, the recruitment letter was emailed, rather than mailed and winners of the incentive raffle were offered a choice of an iPad or grocery store gift card for an equivalent amount.

Surveys were fielded between November 2011 through April 2012 for the baseline survey and from October 2014 through January 2015 for the follow-up survey.

## Response Rate

Both the initial and follow-up surveys had strong response rates for a voluntary survey--64% or 108 of 168 practice sites responded in 2011 and 81% or 127 of 156 practices responded to the follow up survey in 2014. Eighty practices completed a survey in both years. In both years, several surveys were not included in the analysis because they did not meet our threshold for completion.

## Data Analysis and Presentation

The survey responses were downloaded from Snap® and analyzed using Microsoft Access® and SAS® Version 9.2 and SPSS©. The charts presented in this report include frequencies for all responding practices in both years and, where possible, include tests for statistically significant differences between the two time periods. We also present, in italics, selected cross-tabulations by practice specialty (pediatric, family practice) and participation in First STEPS. Response categories were combined in some cases to ensure adequate cell size.

## Responding Practice Characteristics

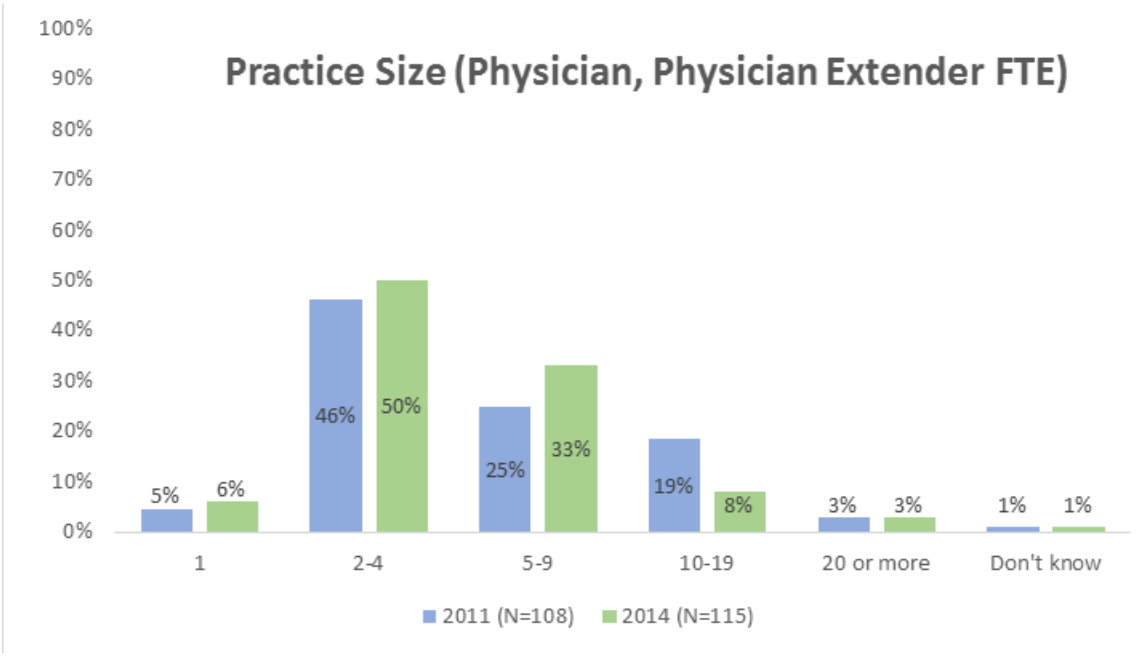
**TABLE 1**

| | 2011 (N=108) | 2014 (N=127)) |
|---|---|---|
| Ownership | | |
| ▪ Hospital or Hospital System | 63% | 61% |
| ▪ Community Health Center | 12% | 24% |
| ▪ Physician or Physician Group | 16% | 15% |
| ▪ Other | 9% | 1% |
| Size (Physician, Physician Extender FTE) | | |
| ▪ 1 | 5% | 6% |
| ▪ 2-4 | 47% | 50% |
| ▪ 5-9 | 25% | 33% |
| ▪ 10-19 | 19% | 8% |
| ▪ 20 or more | 3% | 3% |
| ▪ Don't know | 1% | 1% |
| Specialty | | |
| ▪ Family Medicine | 74% | 70% |
| ▪ Pediatrics | 26% | 30% |
| Percent of Children to Total Patients | | |
| ▪ Small (1-14%) | 28% | 22% |
| ▪ Medium (15-29%) | 38% | 33% |
| ▪ Large (30-100%) | 34% | 45% |
| Medical Home Recognition by any Organization | 41% | 74% |
| Electronic Health Record ▪ Installed and in Use | 78% | 93% |
| Number of Practices Participating in First STEPS | 13 | 17 |

## Practice Size, Ownership and Responder Role

The practice characteristics of responding practices in 2011 and 2014 were generally similar in both years in terms of ownership, size, specialty and % of total patients that were children with some minor exceptions. Most practices that responded to the 2011 and 2014 surveys were small to medium-sized practices based on the number of provider full-time equivalents (FTEs)—including physicians and physician extenders. In 2014, the vast majority (89%) of responding practice sites reported having less than 10 provider FTEs, which was slightly higher than in 2011 (82%). Only 11% of practices responding in 2014 had ten or more provider FTEs.

**CHART 1**




In 2014, nearly two thirds of responding practice (61%), were owned by a hospital or hospital system, which was comparable to 2011 (63%), a quarter (24%) were community health centers and approximately 15% were physician or physician group-owned practices. The ownership distribution of responding practices in 2014 was similar to baseline, except that community health centers were better represented in 2014 (24% compared to 12% in 2011) and less practices identified themselves as other ownership (1% compared to 9% in 2011).

Most (59%) of the respondents completing the survey in 2014 indicated that they were Practice Managers, fewer (15%) were Practice Administrators, and 9% were Office Managers. Seventeen percent selected "other."

**CHART 2**

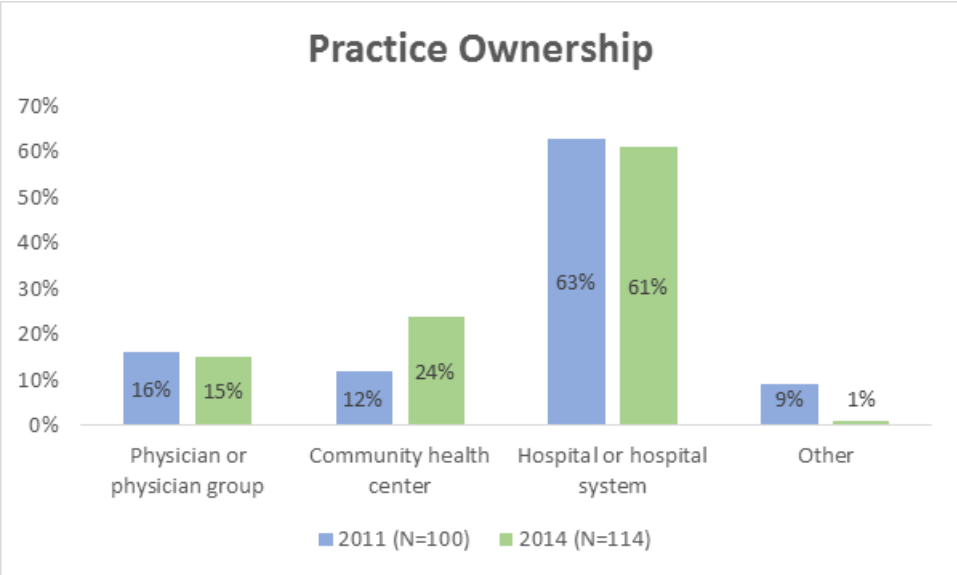
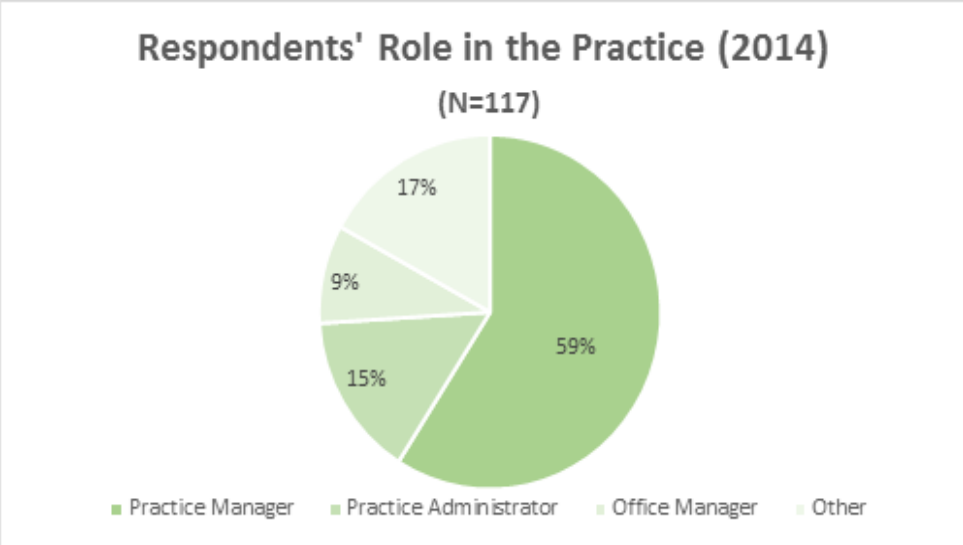



**CHART 3**



## Geographic Location

Responding practices were located in all DHHS regions, with more practices participating from the more populous regions. The chart and map below depict the geographic distribution of responding practice sites in 2014. Relative to 2011, in 2014, a few more practices participated from Mid-Coast (Lincoln, Sagadahoc, Waldo, and Knox counties), and Penquis (Penobscot and Piscataquis counties) regions and fewer from Cumberland and Western (Oxford, Franklin, and Androscoggin counties.

**CHART 4**

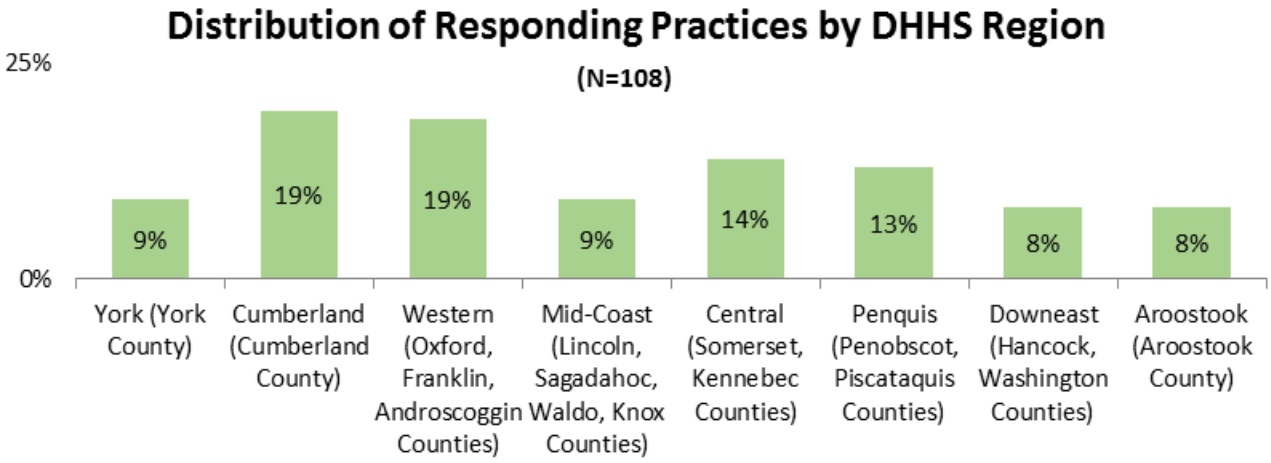
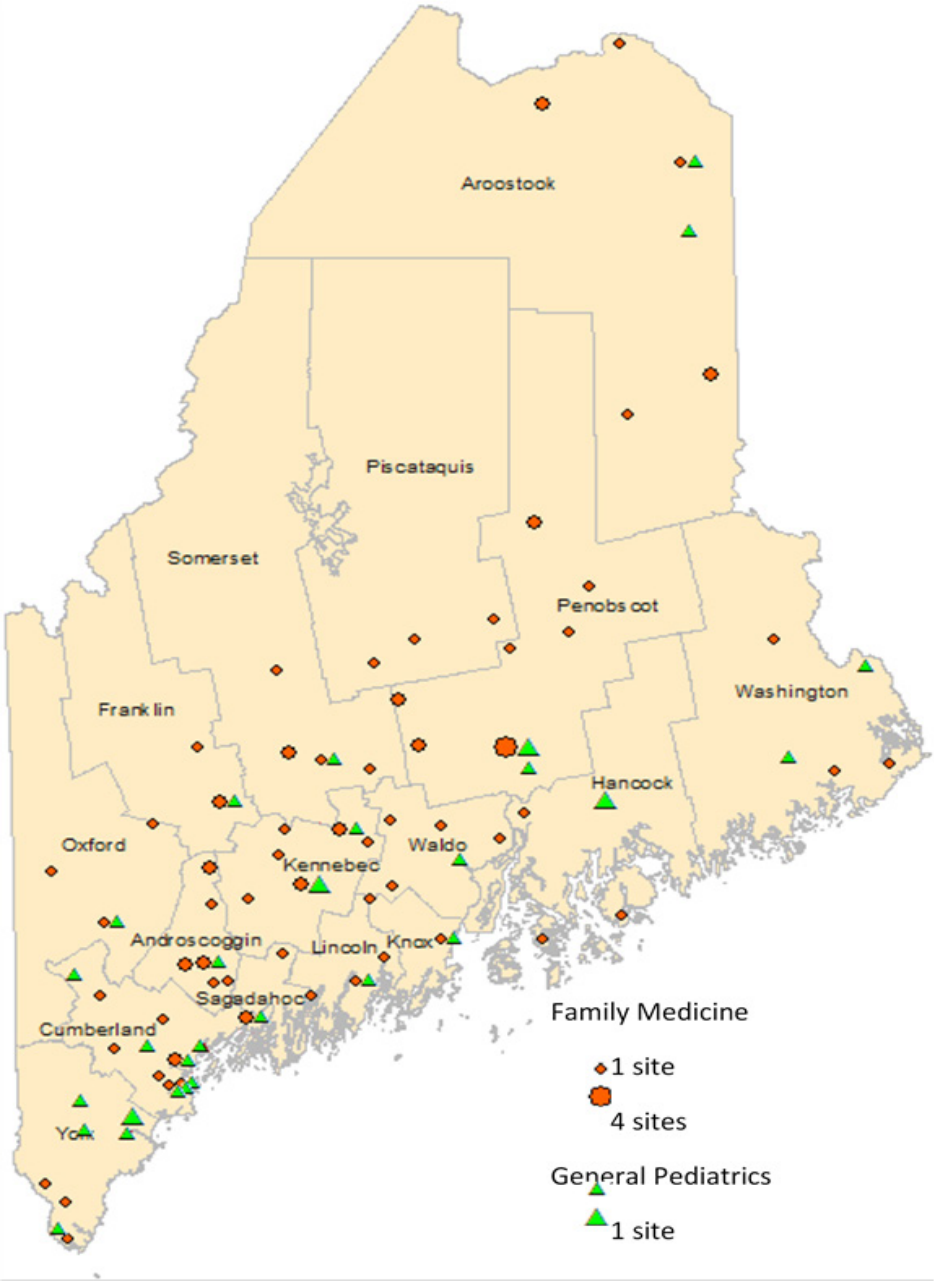


**CHART 5**

# Responding Practices in Maine

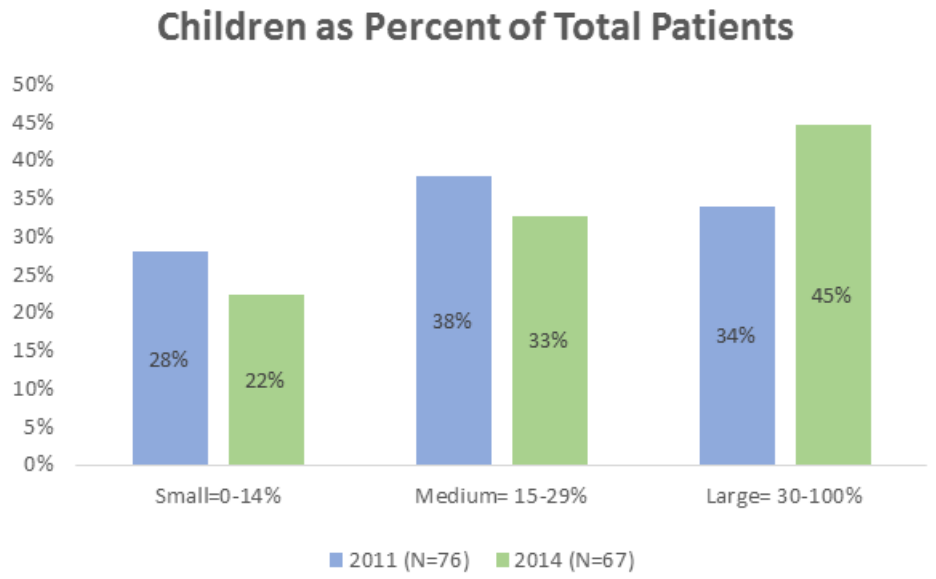


## Practice Specialty and Percent of Children on Practice Panels

In 2014, as in 2011, 70% of responding practices were family practices; and 30% were pediatric practices. In 2011, the distribution of responding practices by specialty was similar, with 74% family practices and 26% pediatric practices.

We asked practices to estimate the proportion of children and adolescents (age 0-21) in their total patient panel. In both 2011 and 2014, for approximately a quarter of responding practices children represented less than 15% of their entire patient panel. In 2014, responding practices tended to have a greater percentage of children on their practice panels (>30%) than in 2011 (45% compared to 34% in 2011). Thirty-three percent of the responding practices served between 15% and 30% of children and adolescents in their panel. However, in both years, a high proportion of the practices did not provide a responses to this item.

**CHART 6**



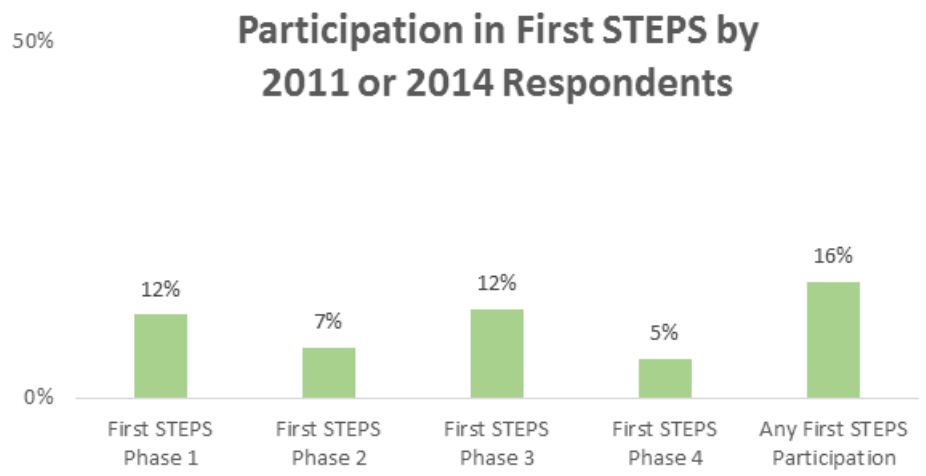

Similarly, practices that responded to the survey varied in the proportion of children insured by MaineCare in their panels, ranging from those that MaineCare represented less than 30% of children served to those where they represented more than 60% of children on their panel. While nearly one third of the responding practices either did not answer this question or provided an invalid response, 18% of the practice sites served a small proportion of MaineCare children (less than 30%), 23% reported a medium proportion of MaineCare children, and 27% reported a high proportion of patients, ages 0-21, insured by MaineCare.

We also used administrative data from MaineCare to estimate the number of children insured by MaineCare served by responding practices. Based on Primary Care Case Management (PCCM) data in December 2009, responding practices in the baseline year served an estimated 67,372 MaineCare children (34,656 in

the pediatric and 32,716 in the family practices)[2]. This represented more than 57% of the total number of MaineCare children served by the PCCM program in baseline year.

Since part of the purpose of the practice surveys was to assess the rate of change or improvement in First STEPS participating practices relative to other practices statewide, we oversampled these practices. As part of Maine's IHOC initiative, 22 pediatric and family practices, most of whom serve a high-volume of MaineCare children, participated in the First STEPS learning collaborative to improve preventive health screening. Thirteen practices, nearly 60% of the IHOC practices responded to one or both surveys (see below).

**CHART 7**




## Medical Home Recognition

Since one of the goals of IHOC was to transform the delivery of health care services for children using a patient centered medical home model, we included questions regarding pediatric and family practices medical home recognition. Between 2011 and 2014, the percentage of pediatric and family practices that reported that they had medical home recognition from some organization increased significantly from 41% in 2011 to 74% in 2014 (p=.000). This increase over time was significant for both practices that had participated in First STEPS (from 44% in 2011 to 92% in 2014, p=.000 and from 41% to 69% in 2014 for other practices, p=.000). The increase over time was also significant for both pediatric and family practices (from only 29 % in 2011 to 73% in 2014 for pediatric practices, p=.001 and from 47% in 2011 to 74% in 2014 for family practices, p=.000).]

Patient-Centered Medical Home (PCMH) is a health care delivery model that seeks to coordinate patient care in a primary care setting. In 2014, 70 percent of the respondents indicated that they were recognized by the National Committee for Quality (NCQA), one, of several medical home accreditation organizations compared to 40 percent in 2011. (NCQA recognition is required in Maine as part of the PCMH/Health

2 This estimate does not include the children at two practice sites that responded to the survey.

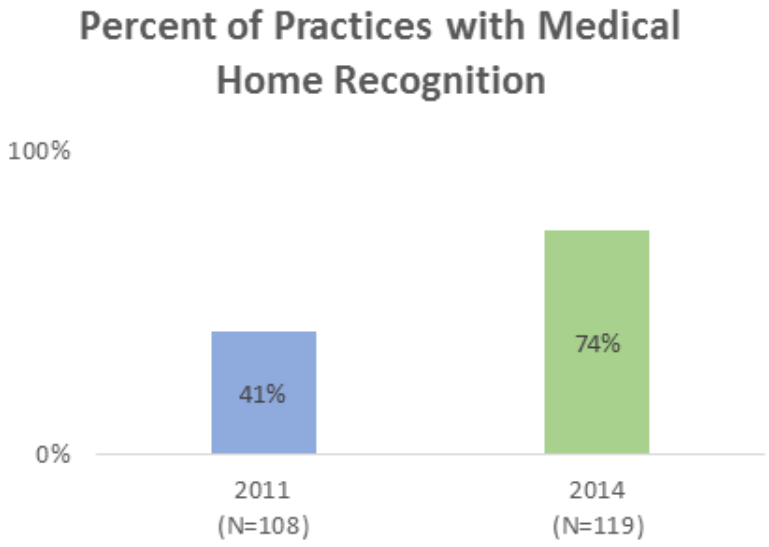
Home initiative.) Also in 2014, almost a third (32%) of the respondents said their practice was recognized by another (other than NCQA) organization, compared to 12 percent in 2011—a statistically significant increase (p=.001).

Finally, also in 2014, 58% of the practices with NCQA recognition reported that they had been recognized at level three, 28% reported being recognized at level two, and 4% reported being recognized at level one. Recognition levels reflect how extensively practices meet requirements with level three indicating the most extensive level. In 2011, 55 percent of the practices were recognized at level 3, 8 percent at level 2, and 25 percent at level one. This distribution represents a statistically significant difference (p=.001) from 2014, with far more practices at level 2 and fewer recognized at level one than in 2011.

This shift in increasing medical home recognition of pediatric and family practices probably reflects a broader trend occurring both nationally and in Maine towards the PCMH model. Through its value-based purchasing initiative the MaineCare program has made a commitment to the PCMH model of care, which requires that providers secure medical home recognition in order to be eligible for the original PCMH pilot and MaineCare Health Homes Stage A and B initiatives, for which children with specific conditions are also eligible.

In addition to these reimbursement incentive programs, the IHOC First STEPS learning collaboratives also sought to improve specific preventive services while promoting the principles of medical homes, which may have helped to contribute to a larger proportion of these practices achieving recognition or increasing their level of recognition.

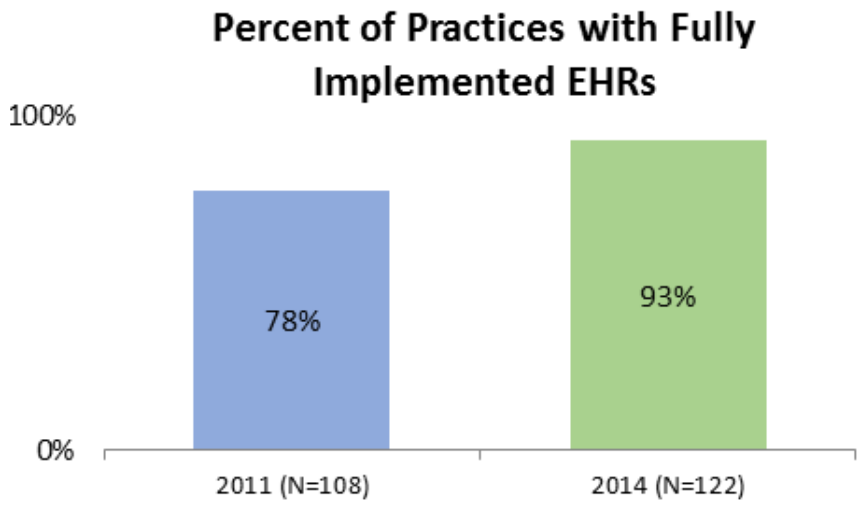
**CHART 8**



## Electronic Health Record Installed

Since many of the IHOC health information technology solutions considered for producing child health clinical measures required the use of EHRs, we asked practices in both years about their EHR adoption rate. Nearly all responding practices in 2014 reported having a fully implemented Electronic Health Record (EHR) in all areas of their practice which was a statistically significant increase from 2011 (93% compared to 78% in 2011). In 2014, only 5% of the responding practices reported that they did not have an EHR. The remaining practices were in the process of purchasing or installing an EHR.

**CHART 9**




# Survey Results

## Practice-Level Child Health Quality Improvement, 2011-2014

### Use of Child Health-Specific Targets and Quality Improvement Tools

The IHOC First STEPS learning collaboratives were designed to increase internal practice familiarity with a variety of quality improvement tools and strategies in order to increase capacity for conducting practice-level quality improvement across topic areas. To assess change in knowledge and awareness in practice-level QI, the

following results show :

- tools and strategies used at the practice sites to improve the quality of care for children, e.g. clinical practice guidelines and target-setting for preventive care or treatment,
- the frequency of performing a variety of quality improvement best practices, e.g. identifying and contacting patients who are behind schedule for preventive services, conducting pre-visit planning, administering recommended screening and tests

For questions asked in both 2011 and 2014, we also present comparisons and note statistical tests for significant differences between years. We also discuss additional analyses by practice specialty (pediatric, family practice) and by participation in First STEPS (participation in any phase, no participation). For survey questions asked only in 2014, we also present comparisons by practice specialty and participation in First STEPS.

## Tools and Strategies Used for Quality Improvement

Most practices reported that they use a variety of quality improvement tools and strategies to improve care for children in their practices. Tools used a great deal or moderately by most practices included:

- clinical practice guidelines and patient safety best practices (98%),
- checklists in patient records (96%),
- measurement of patient/family experience of care (88%) and patient lists or registries (88%), and
- health literacy strategies to improve communication with patients and families (87%).

A considerable, but smaller proportion of practices reported that they relied a great deal or moderately on:

- monitoring practice performance using pediatric quality measures (80%)
- using learning collaboratives (78%),
- benchmarking (76),
- rapid cycle improvement models (69%), and
- **pay-for-performance incentives to achieve preventive care goals (66%).***[3]

Compared to baseline in 2011, only one of these items changed significantly. In 2014, significantly *fewer* responding practices used pay-for-performance incentives a great deal or moderately or to achieve preventive care goals (p=.025). In 2011, 75 percent, versus 66 percent in 2014, reported a great deal or moderate reliance on pay-for-performance incentives to achieve preventive care goals. Reasons for declining use of incentives for child health quality improvement measures are unclear but may reflect reduction in meaningful use incentives during this timeframe and/or increased focus on adult measures for other statewide initiatives.

3 * significant at p<=.05; ** significant at p<=.10.

**TABLE 2**

| Percent of Practices Reporting Doing Recommended QI Tracking or Documentation, All or Most of the Time | | |
|---|---|---|
| | 2011 | 2014 |
| **Check immunizations systematically at all visits (p=.064)** | **94%** | **99%**** |
| Document in charts or EHR preventive services and risk screening | 97% | 98% |
| Reminded patients about upcoming appointments | 94% | 98% |
| Track referrals using paper-based or electronic system | 95% | 93% |
| **Identify and contact patients who are behind for preventive services (p=.020)** | **76%** | **91%*** |
| Test children insured by MaineCare for lead at age 1 and 2 | 78% | 86% |
| **Administer lead screening questionnaire for children at age 1 and 2 (p=.067)** | **63%** | **86%**** |
| Test children insured by MaineCare for anemia between 9 and 15 months | 62% | 82% |
| **Conduct pre-visit planning (p=.000)** | **48%** | **80%*** |
| Use developmental screening tool at age 1, 2, and 3 | 74% | 75%* |
| **Use an autism-specific screening tool between 16 and 30 months (p=.070)** | **33%** | **70%**** |

**CHART 10**

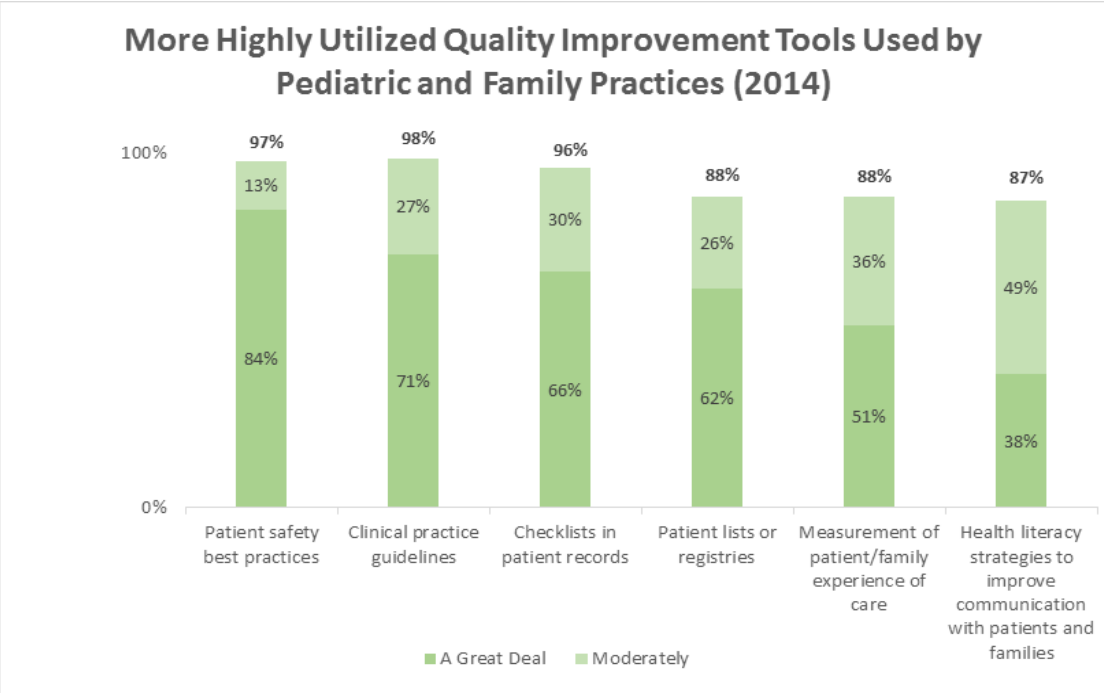
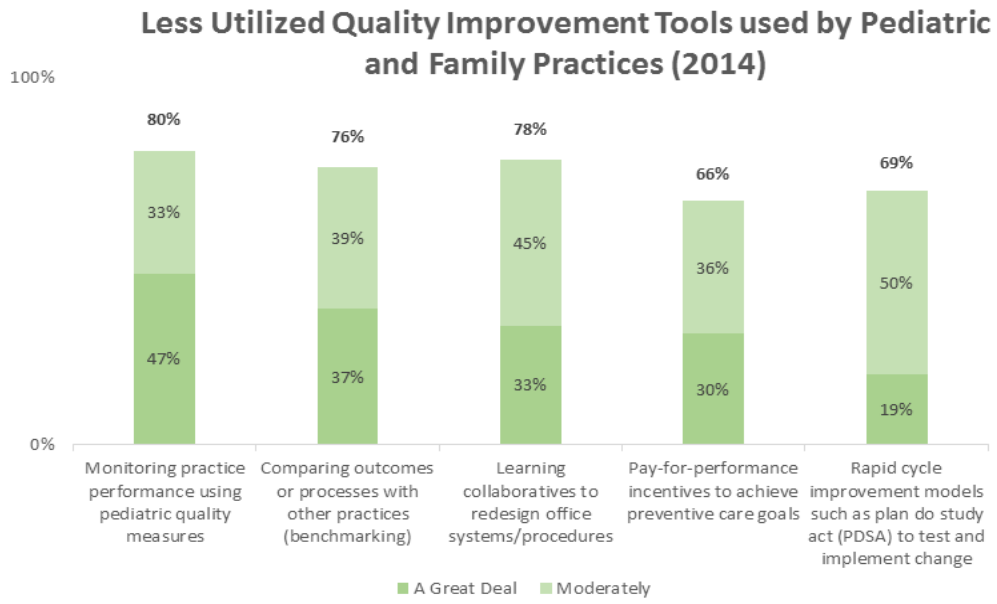


**CHART 11**




## Practice-Level Targets

First STEPS used a data-driven quality improvement approach encouraging practices to set targets for child health preventive screening improvements. Targets may indicate areas of practice that are priorities for practice- or health system-level quality improvement. Since one of the objectives of IHOC was to promote CHIPRA and IHOC child health care quality measures that were useful at the practice level, the survey sought to gather information about the degree to which pediatric and family practices were using practice-level targets.

The surveys asked whether practices used practice-level targets for particular preventive or treatment guidelines for children. In the 2014 survey, practices were also asked about adolescent depression and psychosocial screening behavioral health screening that were added to meaningful use measures and being considered as IHOC behavioral health measures. In 2014, over-three quarters of the responding practice reported that they have practice-level targets for: 1) immunizations by age group (93%), 2) well child visits (WCVs) (87%), 3) developmental screening (79%), and depression screening for adolescents (75%). A smaller proportion of responding practices had set targets for psychosocial screening (48%), anemia screening (53%), and autism screening (58%).

For each of the indicators that appeared on the survey both in 2011 and in 2014, a larger proportion of practices reported having a target in these areas in 2014 than in 2011, suggesting that practice-level targets are becoming more important in child-serving practices. The differences were statistically significant for many of the items (and noted with an asterisk below). Significantly more practices reported having practice-level targets for WCVs, developmental screening, asthma treatment plans, vision screening, oral health screening,

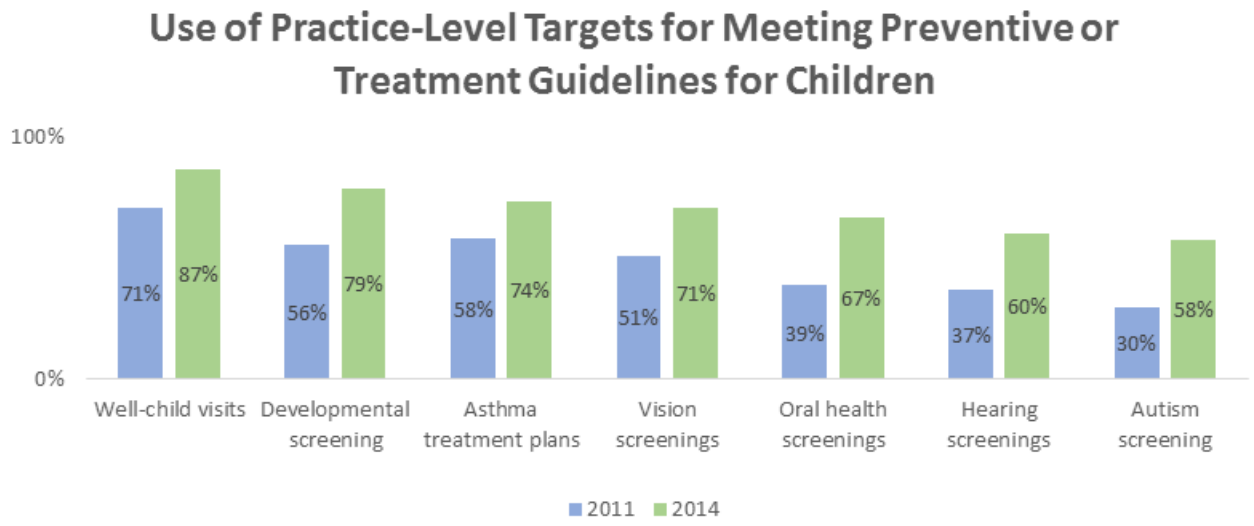
hearing screening and autism screening. Compared to 2011, in 2014, more practices also reported using practice-level targets for immunizations by age group, lead screening, lead testing, and anemia screening, however, these increases were not statistically significant for practices overall. *Both non-First STEPS and First STEPS practices demonstrated increases in many areas. Increases were significant for both groups of practices for oral health screening, developmental screening and autism screening and for non-First STEPS practices only for asthma treatment plans, WCVs, hearing, and vision.*

*Similarly, a greater proportion of both family and pediatric practices had set targets in a number of areas, with more significant increases among the family practices.. The proportion of family practices increased significantly between 2011 and 2014 for WCVs,; oral health, vision, hearing, developmental, and autism screening. Among pediatric practices the increases were significant only for oral health, developmental, and autism screening.*

**TABLE 3**

| Practices with Targets for Preventive Care or Treatment | | |
|---|---|---|
| | 2011 | 2014 |
| Immunizations by age group | 89% | 93% |
| **Well child Visits (p=.015)** | **71%** | **87%*** |
| **Developmental Screening (p=.000)** | **56%** | **79%*** |
| Depression Screening for Adolescents | n/a | 75% |
| **Asthma Treatment Plans (p=.040)** | **58%** | **74%*** |
| **Vision** Screening (p-=.005) | **51%** | **71%*** |
| Lead Screening | 56% | 68% |
| **Oral Health Screenings (p=.000)** | **39%** | **67%*** |
| Lead Testing | 57% | 65% |
| Substance Use Screening for Adolescents | n/a | 63% |
| **Hearing Screening (p=.002)** | **37%** | **60%*** |
| **Autism Screening (p=.000)** | **30%** | **58%*** |
| Anemia Screening | 44% | 53% |
| Psychosocial Screening | n/a | 48% |

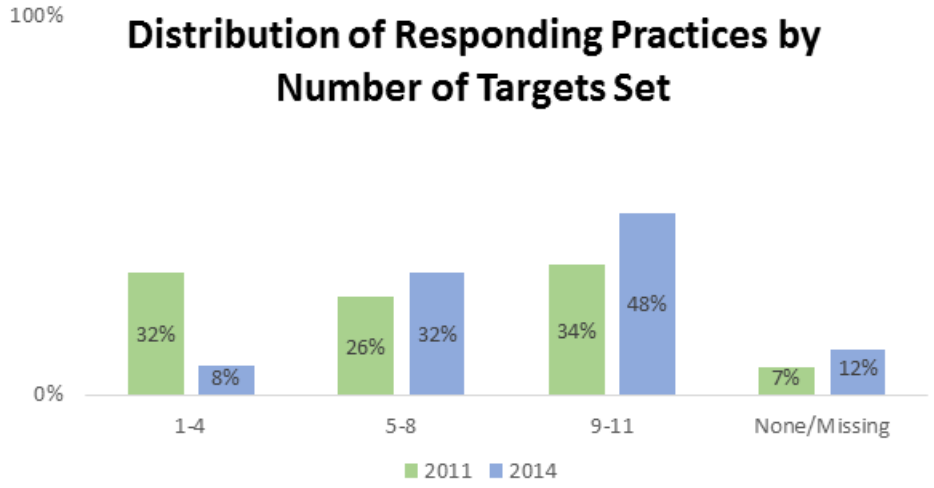
**CHART 12**




In 2014 practices reported that they are also using a larger number of targeted areas for child health performance improvement. Compared to 2011, in 2014, a higher proportion of practices reported having more set targets than in 2011. About half of the practices (48%) in 2014, reported that they had more than 9 practice-level targets, compared to 34% in 2011. Also in 2014, about one-third (32%), compared to 26% in 2011, had between 5 and 8 of these targets. Finally, in 2014, 8% of the practices had few (1 to 4) targets, compared to 32% in 2011.

*Between baseline and follow-up, the distribution of practices by number of targets differed significantly by practice specialty. Decreases in the proportion of practices with few (1-4) targets were greater among family practices (a 27 percentage point decrease compared to a 15 percentage point decrease among pediatric practices). Increases in the proportion of practices with a large (9-11) number of targets were greater among pediatric practices, with a 27 percentage point increase among pediatric practices and 9 percentage point increase among family practices. Furthermore, increases between 2011 and 2014 in the proportion of practice reporting a large (9-11) number of targets were significant for both practices that had, and had not participated in First STEPS (for non-First STEPS practices, an increase from 32% to 47%, p=.001, and among First STEPS practices, from 44% to 50%, p=.024).*

**CHART 13**




## Use of Care Standards and Participation in Child Health Quality Improvement

Both in 2014 and 2011, the surveys asked about the frequency with practices follow a number of standards of care and best practices in quality improvement. The quality improvement activities and standards of care were selected either because they appear in the quality improvement literature as a recommended practice, because they are required by the MaineCare program, or because the topical area was the focus of one of the First STEPS learning collaboratives.

In the 2014 survey only, we also asked the practices about additional standards of care and best practices relating to immunizations; general developmental and autism screening; oral health, and healthy weight. These areas were selected because these areas were the focus of IHOC's First STEPS learning collaboratives, and as stated previously, one of the main goals of the survey was to determine whether the IHOC initiative improved quality at First STEPS practices and whether the initiative contributed to "spread" statewide.

Compared to 2011, in 2014 significantly more practices reported that they are following the recommended QI activities and standards of care for *many* of the items asked. Furthermore, most of the improvement was in the items on which fewer practices in 2011 were performing the recommended care all or most of the time. Improvements were most impressive (by degree of significance) in the following areas [(all of these items were significant at or very close to $p<.05$ (see below)].

- conduct pre-visit planning ($p=.000$).
- identify and contact patients who are behind schedule for preventive services ($p=.020$),
- check immunizations systematically at all visit ($p=.064$,),
- Administer lead screening questionnaire for children at age 1 and 2 ($p=.067$), and
- Use an autism-specific screening tool between 16 and 30 months ($p=.070$).

*The increase between 2011 and 2014 in proportion of practices identifying and contacting patients behind schedule for preventive services, was significant among First STEPS practices. Practices that had not participated in any part of First STEPS also demonstrated an increase, but the change was not statistically significant. [By 2014, 96% of First STEPS practices reported contacting patients who were behind, a statistically significant increase of 18 percentage points, p=.050. Other practices increased by 12 percentage points to 89%,.]*

*For pre-visit planning, both First STEPS and other practices demonstrated increases between 2011 and 2014, however the difference was statistically significant only among other practices. Other practices increased 33 percentage points to 78% (p=.000) and First STEPS practices increasing 22 percentage points to 89% reporting that the practice conducts pre-visit planning all or most of the time.*

*Increases in use of an autism-specific screening tool between 16 and 30 months between 2011 and 2014 were also statistically significant among non-First STEPS practices (p=.039), with those practices increasing from 45 percent in 2011 to 66 percent in 2014. This may reflect the spread affect of broader statewide billing and coding changes in developmental screening and autism that were shared with all practices and/or the inclusion of developmental screening measures in HH. Responding First STEPS practice autism screening also increased, at a much lower rate-- from 80 to 82 percent. (p=.039).*

*Between baseline and follow-up, increases in the proportion of practices that reported conducting pre-visit planning all or most of the time, were statistically significant for both pediatric and family practices. Pediatric practices increased significantly from 41% in 2011 to 85% in 2014 in 2014 (p=.002). Family practices that reported conducting previsit planning all or most of the time also increased significantly, from 53% in 2011 to 80% in 2014.(p=.002).*

*Increases among the percent of practices using an autism-specific screening tool between 16 and 30 months all or most of the time increased for both pediatric and family practices, but the increase was significant only for pediatric practices. Between 2011 and 2014, pediatric practices reporting that they use an autism-specific screening tool between 16 and 30 months all or most of the time increased from 65 percent to 91 percent, a 26 percentage point increase; whereas family practices increased from 43 percent to 60 percent, an increase of 17 percentage points, (p=.031).*

*Between baseline and follow-up, significantly more family practices-- reported that they administered lead screening for children between age 1 and 2, all or most of the time. Family practices demonstrated a statistically significant increase (p=.015). from 71% in 2011 to 86% in 2014, a 14 percentage point increase. Pediatric practices also demonstrated an increase, from 88% in 2011 to 94% in 2014, a 6 percentage point increase, but it was not significant.*

*The proportion of practices reporting conducting other recommended office systems standards of care or screening increased in nearly all areas but changes were not statistically significant between 2011 and 2014. However, in 2014, a very high proportion of practices reported meeting the standard of care all or most of the time in the following areas (see below):*

- Document in charts or EHR preventive services and risk screening
- Reminded patients about upcoming appointments
- Track referrals using paper-based or electronic system

- Test children insured by MaineCare for lead at age 1 and 2
- Test children insured by MaineCare for anemia between 9 and 15 months
- Use a developmental screening tool at ages 1, 2, and 3.

**TABLE 4**

| Percent of Practices Reporting Doing Recommended QI Tracking or Documentation, All or Most of the Time | | |
|---|---|---|
| | 2011 | 2014 |
| **Check immunizations systematically at all visits (p=.064)** | **94%** | **99%**** |
| Document in charts or EHR preventive services and risk screening | 97% | 98% |
| Reminded patients about upcoming appointments | 94% | 98% |
| Track referrals using paper-based or electronic system | 95% | 93% |
| **Identify and contact patients who are behind for preventive services (p=.020)** | **76%** | **91%*** |
| Test children insured by MaineCare for lead at age 1 and 2 | 78% | 86% |
| **Administer lead screening questionnaire for children at age 1 and 2 (p=.067)** | **63%** | **86%**** |
| Test children insured by MaineCare for anemia between 9 and 15 months | 62% | 82% |
| **Conduct pre-visit planning (p=.000)** | **48%** | **80%*** |
| Use developmental screening tool at age 1, 2, and 3 | 74% | 75%* |
| **Use an autism-specific screening tool between 16 and 30 months (p=.070)** | **33%** | **70%**** |

* significant at p<=.05; ** significant at p<=.10.

**CHART 14**

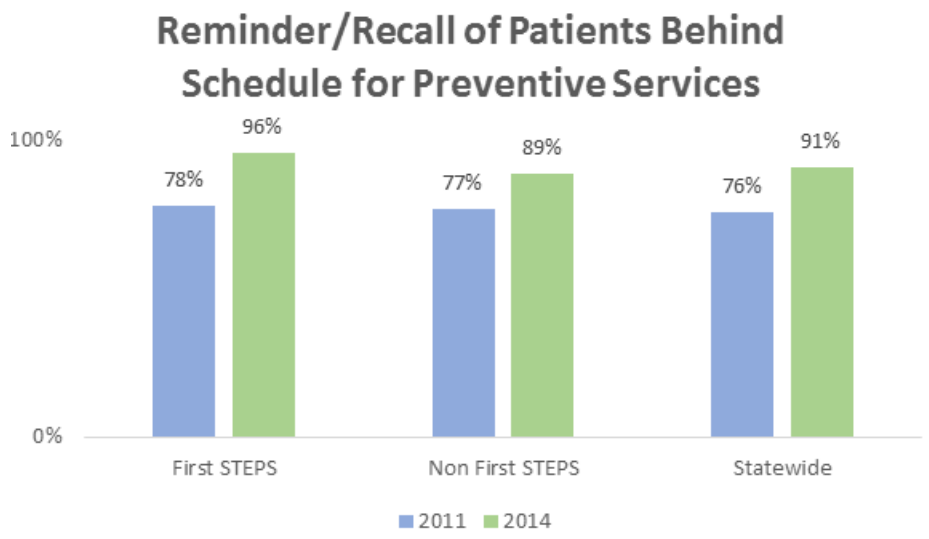
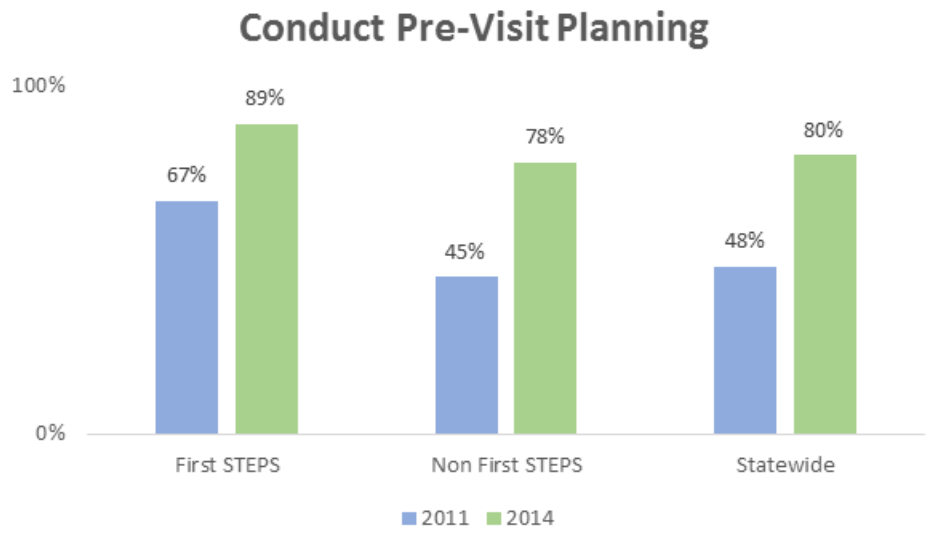



**CHART 15**

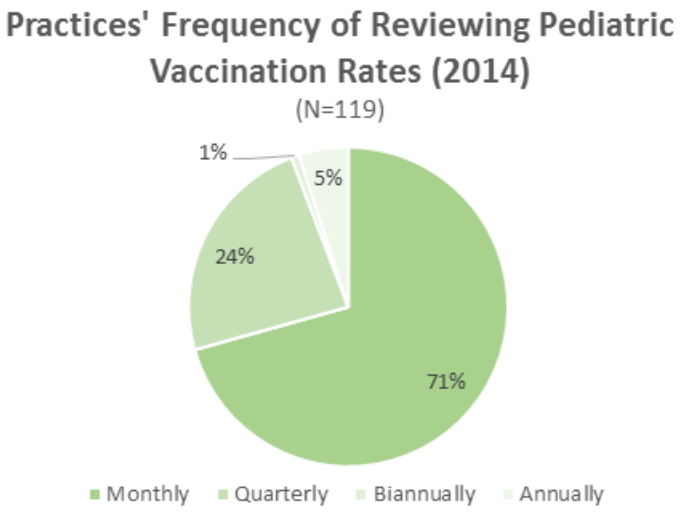



The data presented in the rest of this section of this report were only collected in 2014 and focus on First STEPS-specific topic areas and recommended QI practices that were shared in learning sessions.

## Immunizations

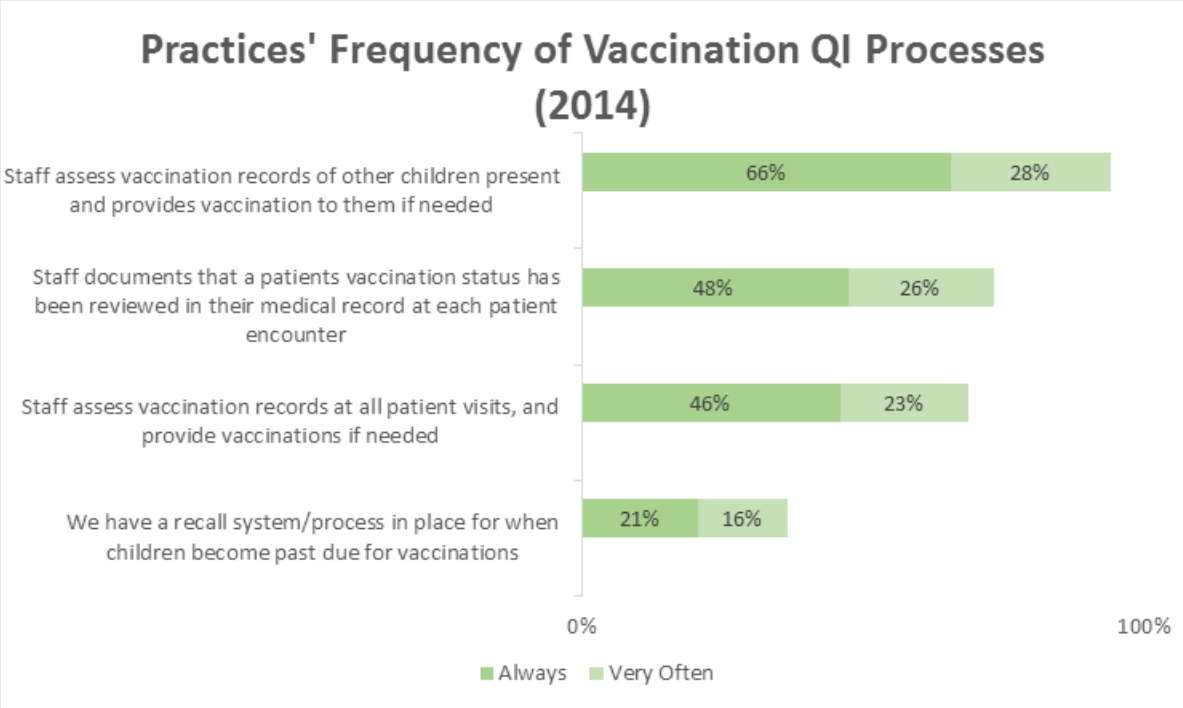
To learn more about immunization quality improvement practices and process at Maine's child-serving practices, we asked about the frequency of immunization review and other immunization QI standards and best practices. Most (71%) of the responding practices reported that they review immunizations for the patient panel on a monthly basis and about a quarter (24%) review them on a quarterly basis. Only a few (5%) of the practices review immunizations annually. *[Practices that participated in any phase of First STEPS were far more likely, (93% vs. 64% non-First STEPS), to review quarterly (p=.004). Pediatric practices were also significantly more likely (89%) to review vaccination rates of the pediatric patient population on a monthly basis than family practices (64%) (p=.056).]*

**CHART 16**




Nearly all reporting practices (94%) always or very often assess vaccination records of other children present during a well child or sick visit, and slightly less than half (47%) have recall systems/processes in place when children are past due for vaccinations. About three-quarters (73%) of the practices reported that they always or very often document that a patient's vaccination status has been reviewed at each encounter. Sixty-nine percent of the responding practices reported that they always or very often assess vaccination records at all patient visits including acute care and follow-up visits.

**CHART 17**




## Autism Screening

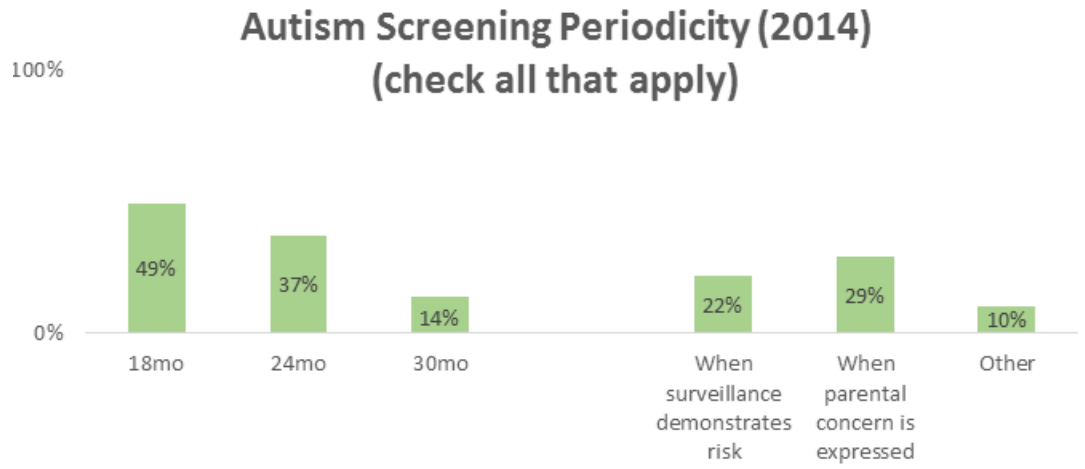
To improve earlier identification and treatment of children with developmental delays including autism spectrum disorder (ASD), the First STEPS learning collaborative conducted extensive trainings on this topic in two different phases of learning sessions. The second phase extended trainings to a larger number of practices in the state including those practices participating in MaineCare's Health Homes Initiative.

We asked practices to provide information about when they perform autism screening in their practice. Almost half (49%) reported that they perform the screening at the 18 month visit, and 37%, reported screening at the 24 month visit. Fewer, 14% reported screening for autism at the 30 month visit. Approximately one quarter of responding practices indicated that they conducted the screen when surveillance demonstrates risk (22%, and when parental concern is expressed (29%). Autism screening is recommended at the 18- or 24/30-month visit and when surveillance demonstrates risk or a parent is concerned. (Please note that this question also included 'at every well child visit' as a response option. Because many practices that selected this response had not *also* selected the WCV response options, we recoded that response option and imputed 'yes' responses for the 3 WCV options.)

**TABLE 5**

| Autism Screening Periodicity (2014) | |
|---|---|
| | Percent |
| 18 month visit | 49% |
| 24 month visit | 37% |
| 30 month visit | 14% |
| When surveillance demonstrates risk | 22% |
| When parental concern is expressed | 29% |
| Other | 10% |

**CHART 18**

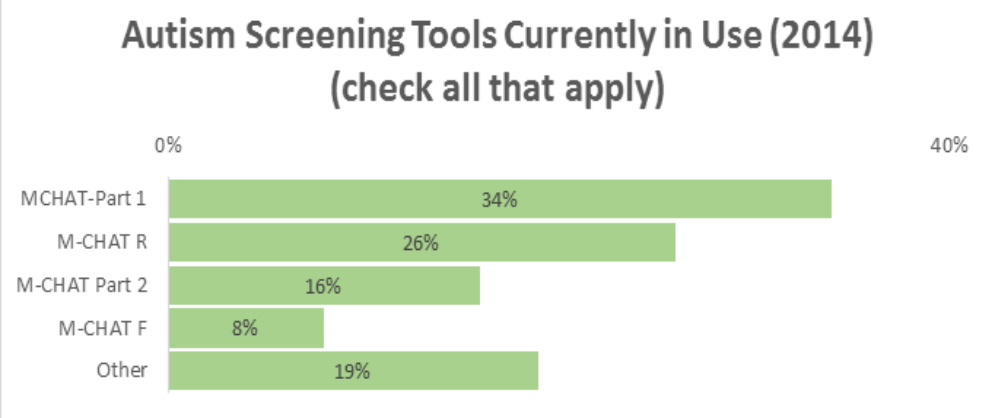



*Practices that had participated in any phase of First STEPS were significantly more likely to report that they screen for autism at the 18-and 24-month WCVs (p=.000 for both). Fifty-eight percent of First STEPS practices versus 46 percent of other practices reported screening at 18-months; and 48 percent of First STEPS practices, compared to 30 percent of practices reported screening at the 24-month WCV. First STEPS practices were also significantly less likely to only screen when surveillance demonstrates risk 12 percent versus 31 percent (p=.051).or when parental concern is expressed, (15% for First STEPS practices versus 41% for non-First STEPS practices (p=.018) neither of which is recommended as best practice.*

The most commonly used autism screening tool at the responding practices was reported to be M-CHAT Part 1, with 34% of the responding practices indicating that is was in use at their practices; close behind was M-CHAT R at 26%. M-CHAT R performs the same function as M-CHAT Part 1, to provide an initial screen for autism. The M-CHAT R is a later, revised version of the tool, which was also introduced during First STEPS 2014 as part of the learning collaborative. The M-CHAT Part 2 is used for follow-up and the

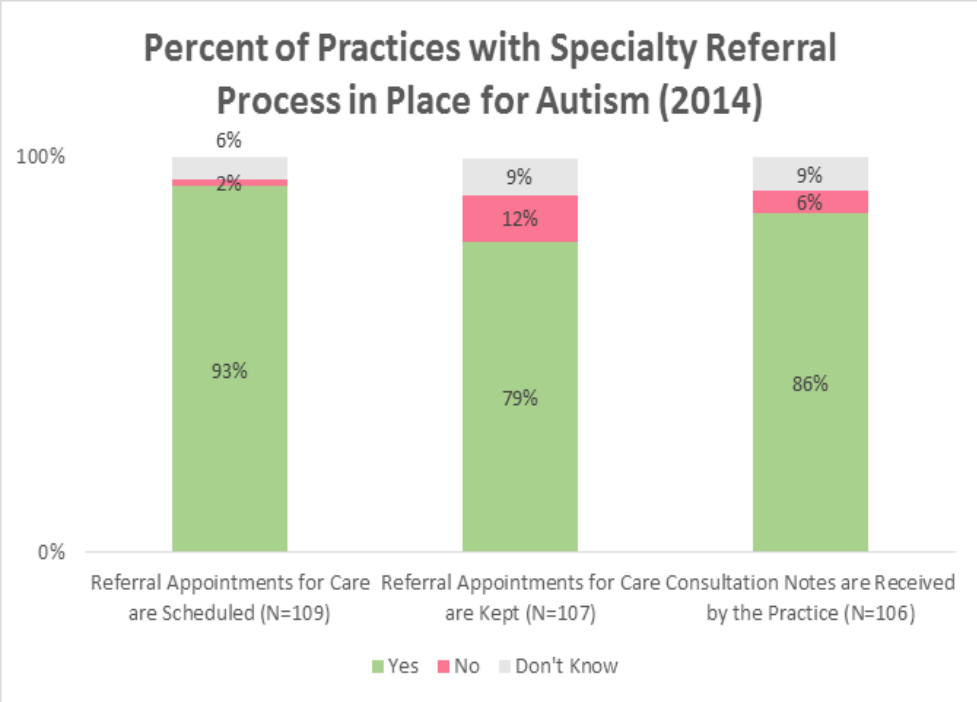
M-CHAT F is the revision of the M-CHAT Part 2. Both provide additional information about risk for autism. *First STEPS practices were significantly more likely than non-First STEPS practices to report using the M-CHAT R and M-CHAT F. Sixty percent if First STEPS practices versus 27 percent non-First STEPS reported using M-CHAT R (p=.004). Thirty-six percent of First STEPS practices reported using the M-CHAT F versus 17 percent for non-First STEPS practices (p=.047) No First STEPS practice reported using another autism screening too, compared to 36% of non-First STEPS practices (p=.000). Pediatric practices were significantly more likely to report using M-CHAT R. Sixty-one percent of pediatric practices reported using that tool, compared to 24 percent of the family practices (p=.000); and family practices were significantly more likely to use another tool, with 36 percent of family practices, compared to 10 percent of pediatric practices (p=.008) reporting using an "other" tool for autism screening.*

**CHART 19**




Once a possible issue is identified through screening at a primary care practice, referral for follow up is an important part of the care continuum. Nearly all (93%) of the responding practices reported that for referrals resulting from autism screening, they have a mechanism in place to ensure that referral appointments are scheduled. Fewer, but still over three-quarters of the practices (79%) reported that they have a mechanism in place to ensure that referral appointments for care are kept. Almost as many, (86%), reported that they have a mechanism in place to ensure that consultation notes are received by the practices. *First STEPS and non-First STEPS responded similarly to the questions about referrals from autism screening, except that non-First STEPS practices were more likely not to know whether the practice had a process in place to ensure that referral appointments were kept. No First STEPS practices reported that they did not know, whereas 12 percent of the non-First STEPS practices reported they did not know.*

**CHART 20**




## General Developmental Screening

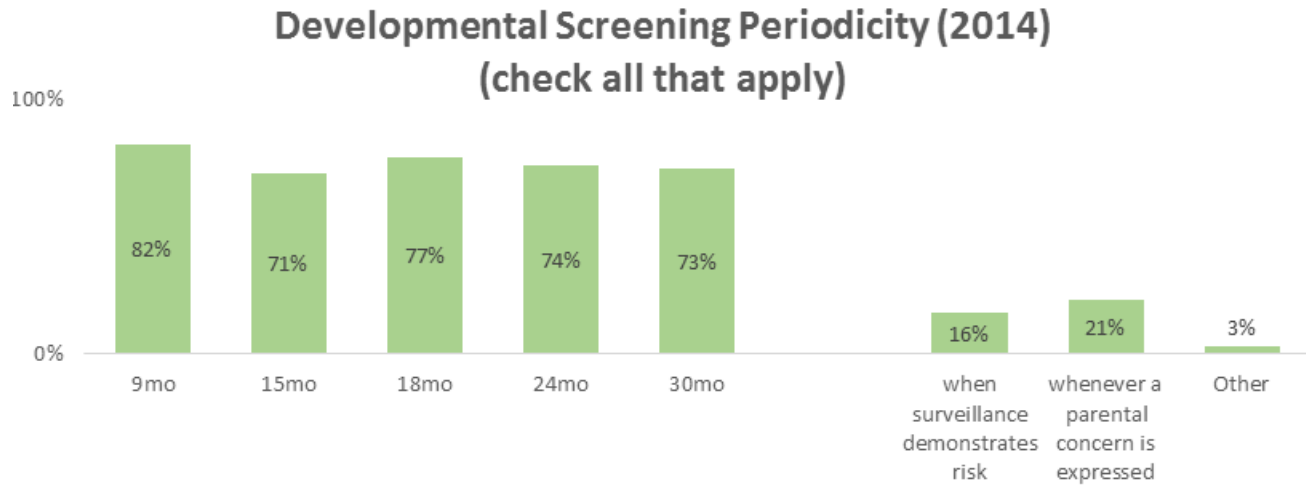
In addition to the developmental screening-related questions included in the survey in both years, the 2014 survey included additional items about practice processes such as: screening periodicity, tools used, and referral processes for positive developmental screens.

About three-quarters of the responding practices reported that they currently perform general developmental screening at the 9- (82%), 15- (71%), 18- (77%) 24- (74%), and 30-month (73%) WCVs. About one-in-five perform developmental screening when surveillance demonstrates risk (16%) and when parental concern is expressed (21%). Because the question directed practices to check all [response options] that apply, the responses are not mutually exclusive. (Also, because many practices that selected 'at all well child visits' did not also select each WCV options, we imputed positive responses to them.)

**TABLE 6**

| Developmental Screening Periodicity (2014) | |
|---|---|
| | Percent |
| 9 month visit | 82% |
| 15 month visit | 71% |
| 18 month visit | 77% |
| 24 month visit | 74% |
| 30 month visit | 73% |
| | |
| When surveillance demonstrates risk | 16% |
| When parental concern is expressed | 21% |
| Other | 3% |

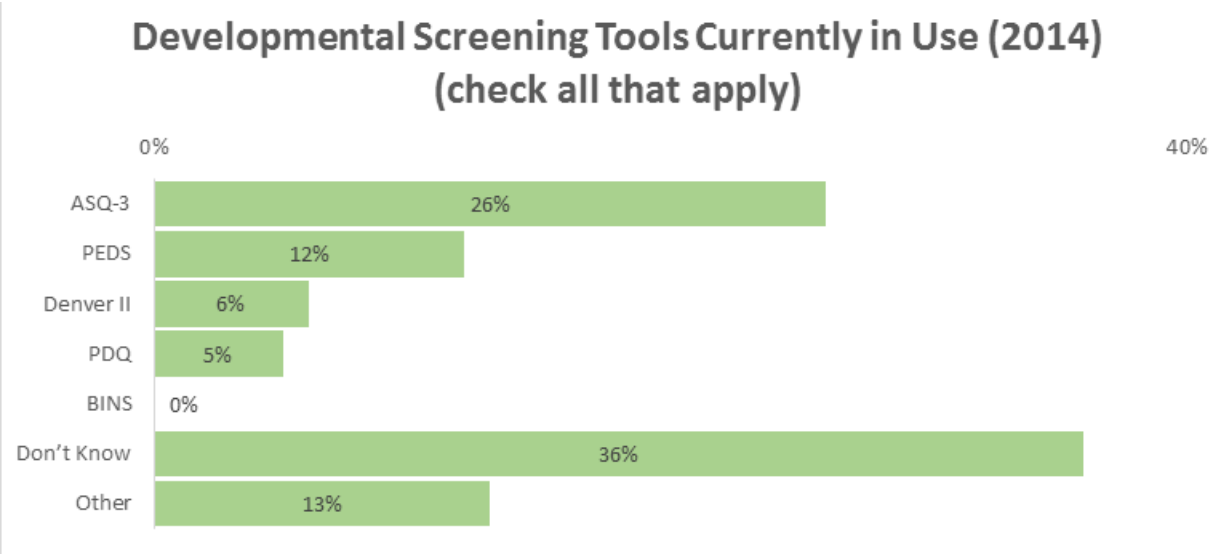
**CHART 21**




The survey also asked a second question about whether practices follow the Bright Futures periodicity for age-specific WCVs. Ninety-five percent of the practices reported that they did so all (80%) or most (15%) of the time; and 94 percent reported that all (79%) or most (15%) of the time they conduct developmental surveillance at WCVs based on Bright Futures (which recommends general developmental screening at 9, 18, and 30-month WCVs).

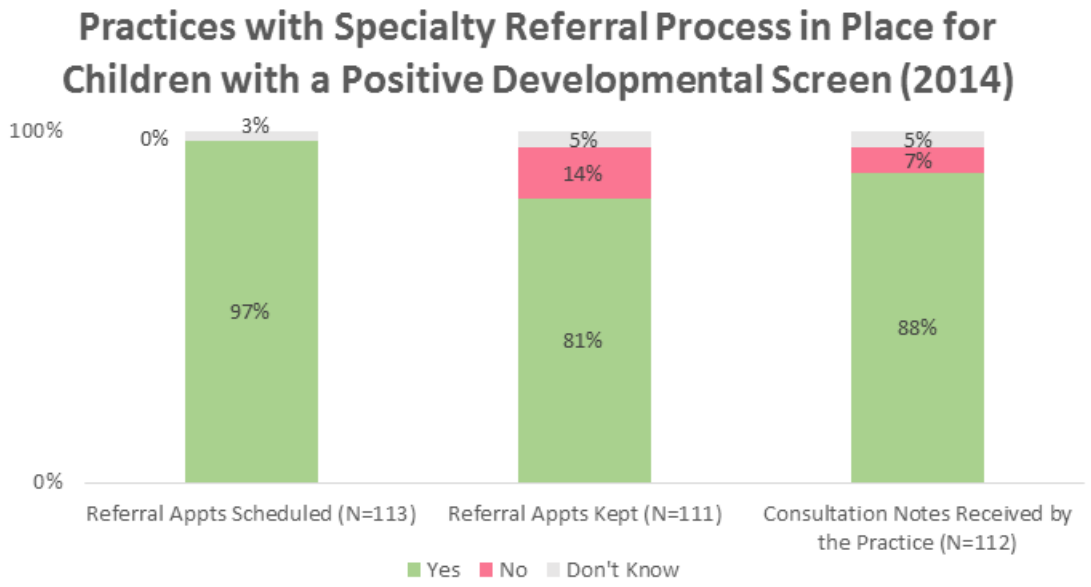
We asked practices which tool(s) they use for general developmental screening. More than a quarter of the practices (26%) indicated that they used the ages and stages (ASQ-3) general developmental screening tool; and 12 percent reported that they used the PEDS (Parents' Evaluation of Developmental Status)—the two tools that First STEPS recommended and purchased for practices participating in the learning collaborative. Fewer, reported using the Denver II (6%) and the Prescreening Developmental Questionnaire (PDQ) (5%). *Not surprisingly, practices that had participated in any phase of First STEPS were significantly more likely to report using the ASQ-3 (50% for First STEPS versus 25% for non-First STEPS practices, p=.017) and PEDS (39% for First STEPS versus 6 percent for non-First STEPS practices, p=.000). Pediatric practices were also significantly more likely to use the ASQ and PEDS than family practices. Forty-six percent of pediatric practices, compared to 24 percent of family practices reported using the ASQ (p=.024). Twenty-seven percent of pediatric practices, compared to seven percent of family practices, reported using the PEDS (p=.004). Family practices were more likely to report using another tool for general developmental screening, with 21% of family, compared to 3% of pediatric practices reporting using an 'other' tool (p=.018).*

**CHART 22**




To learn about specialty referral processes for general developmental screening, the survey asked about office processes to ensure that referral appointments are scheduled, kept, and consultation notes received by the practice. Nearly all (97%) of the responding practices indicated that they have a referral process in place for children with positive developmental screens. Eight in ten (81%) of the responding practices reported that they have a mechanism in place to ensure that referral appointments for care are kept. Slightly more (88%) reported that they have a mechanism in place to ensure that consultation notes are received by the practice.

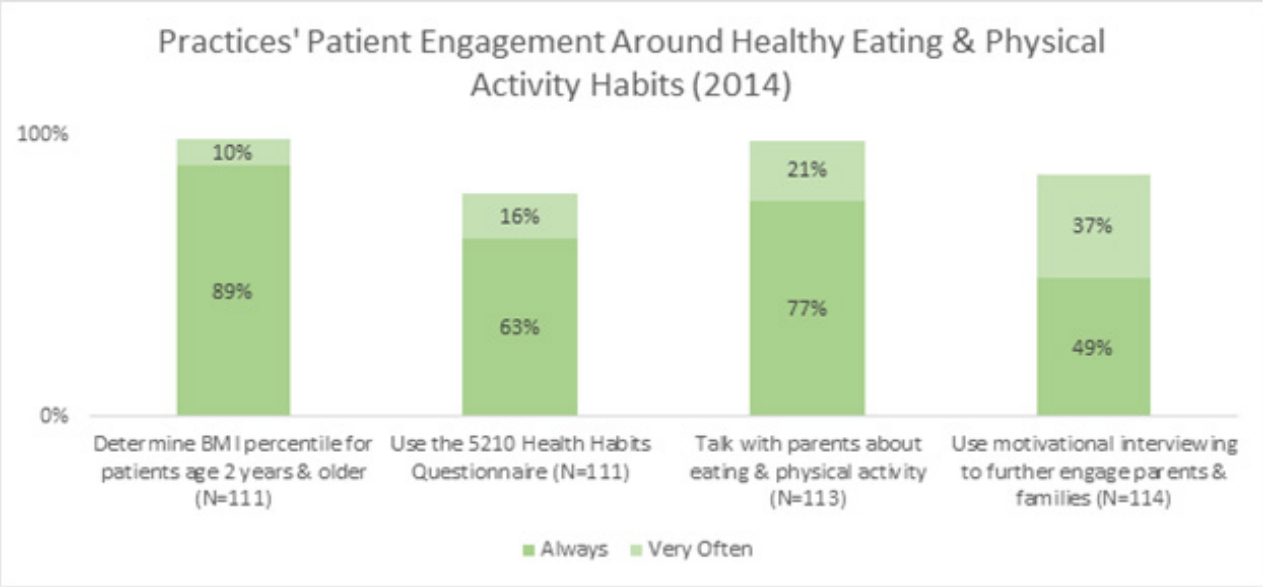
**CHART 23**




## Healthy Weight

The 2014 survey also asked more detailed questions around recommended office procedures related to healthy weight and oral health which were the focus of the IHOC First STEPS Phase III learning collaborative and that First STEPS had set practice targets on related measures. Survey results indicate that in 2014, for patients two years and older, 89 percent of practices always (and 99% always or very often) determine body mass index (BMI). *Significantly more pediatric practices report always determining BMI, with 100% of pediatric practices reporting that they perform this function, versus 84 percent of family practices (p=.043). Three-quarters (77%) of the practices reported always talking with parents about eating and physical activity habits (98%) always or very often). Sixty-three percent use the 5210 Healthy Habits Questionnaire always (79% always or very often). First STEPS practices were significantly more likely to use the Questionnaire, with 85% of First STEPS practices, versus 56% non-First STEPS practices, always administering the survey (p=.038) Furthermore, pediatric practices were significantly more likely to report always administering the questionnaire, with 89 percent, compared to 51 percent of family practices (p=.002). Fewer, about half (49%) always (and 86% always or very often) use motivational interviewing techniques to further engage patients and families. Finally, 90% of the responding practices reported that they have at least one physician leader addressing healthy weight in their practice.*

**CHART 24**




## Oral Health

The oral health goals of First STEPS Phase III focused on getting young children under 4 access to preventive dental care through primary care practices. Primary care practices can play an important role in oral health of young children because they visit primary care providers earlier and more frequently than dentists. First STEPS sought to increase primary care practices' documentation of a dental home and dental referrals, assessment of oral health risk, and provision of preventive fluoride varnish treatment for young children with no dental home. MaineCare helped encourage this practice-level change by releasing a new policy to reimburse primary care practices for oral health risk assessments for children age 3 and under. 2014 survey results on oral health quality improvement in pediatric and family practices revealed that about half of the responding practices reported that:

- providers in the practice always (52%) conduct an oral health risk assessment for children under 4 years of age (95% always or very often),
- providers or medical support staff always (16%) apply fluoride varnish effectively and efficiently (42% always or very often), and notably, 41% reported that they do not or rarely apply fluoride varnish,
- providers or clinical support staff always (37%) document oral health processes via the EHR or other automated system (72% always or very often),
- providers or clinical support staff always (53%) refer to a local dentist(s) when an oral health problem in a child is identified (87% always or very often), and

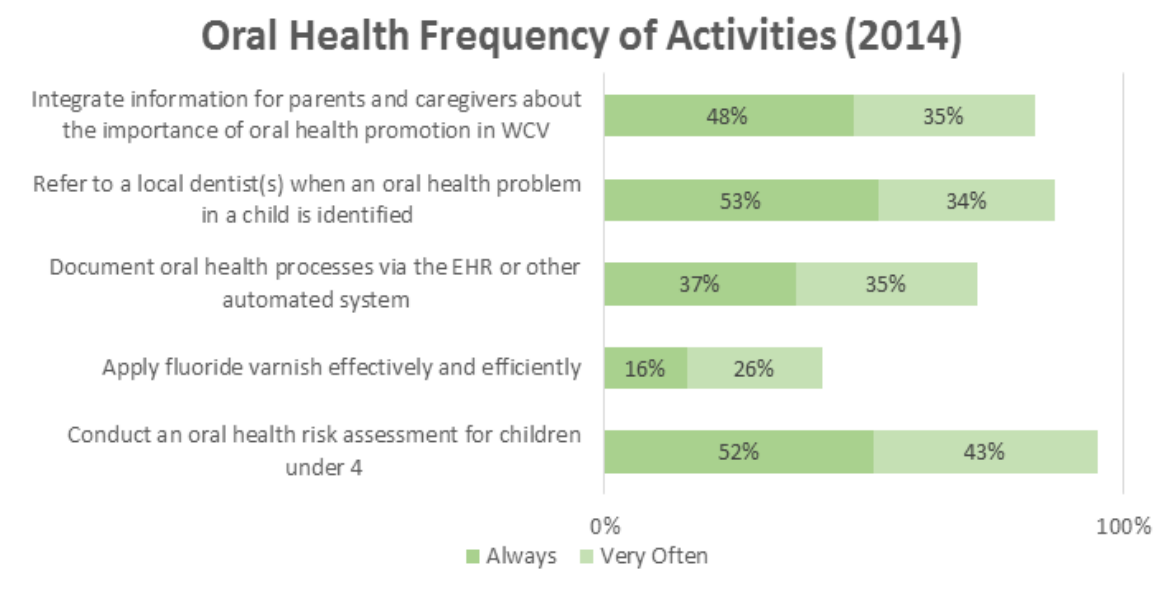
- providers or clinical support staff always (48%) integrate information for parents and caregivers about the importance of preventing oral health problems in WCVs (83% always or very often).

Given that oral health risk assessments were only reimbursed recently by MaineCare as part of the 2012 First STEPS learning collaborative, this adoption rate by practices across the state is very high and may support the value of introducing a new policy in conjunction with First STEPS learning collaborative building off existing related quality initiatives such as the First Tooth program that laid the groundwork for introducing oral health prevention in primary care practices

*In fact, practices that had participated in any phase of First STEPS were significantly more likely to report that they conduct oral health risk assessments for children under four years of age. Three quarters (74%) of First STEPS practices, versus less than half (45%) of non-First STEPS practices always perform the oral health risk assessment (p=.024). Furthermore, First STEPS practices were significantly more likely to apply fluoride varnish (p=.000). More than three-quarters of First STEPS practices (78%) always or very often apply the varnish compared to 32% of the non-First STEPS practices. First STEPS practices were also significantly more likely than other practices to refer to a local dentist when an oral health problem in a child is identified (p=.017). First STEPS practices were significantly more likely to report always (63% First STEPS versus 29% for other practices) and always or very often (89% First STEPS versus 66% other practices) documenting oral health processes via the EHR or other automated system than non-First STEPS practices. three-quarters (78%) of the First STEPS practices always (100% always or very often) referred to a dentist compared to 45% always (84% always or very often)of other practices.*

*Pediatric practices were significantly more likely to report always performing several of these oral health activities. For example, 74 percent of pediatric practices (compared to 43% of family practices) always conduct an oral health risk assessment for children under four (p=.005). Pediatric practices were also more likely than family practices, to report always applying fluoride varnish, (29% always and 63% always or very often versus 9% and 32% of family practices) (p=.000). Pediatric practices also reported significantly higher rates of documenting oral health processes via the EHR or other automated system (66% always and 91% always or very often for pediatric, 23% always and 62% always or very often for family practices) (p=.000).*

**CHART 25**




The survey also asked practices about referral processes related to dental care. Fewer practices reported that they have office processes in place to ensure follow-up on oral health referrals than for follow-up for general developmental or autism. About three quarters (73%) of the responding practices reported that they have a mechanism in place to ensure that referral appointments are scheduled. A little more than half (58%) have a mechanism in place to ensure that referral appointments are kept. Six in ten (62%) have a process in place to ensure that consultation notes are received by the practice. *Cross-tabulations by First STEPS participation and by practice specialty generally did not show statistically significant difference between these groups, except that family practices, were more likely to have processes in place to ensure that referral appointments for dental care are kept, with 62 percent of family, compared to 47 percent of pediatric practices so reporting (p=015).*

**CHART 26**

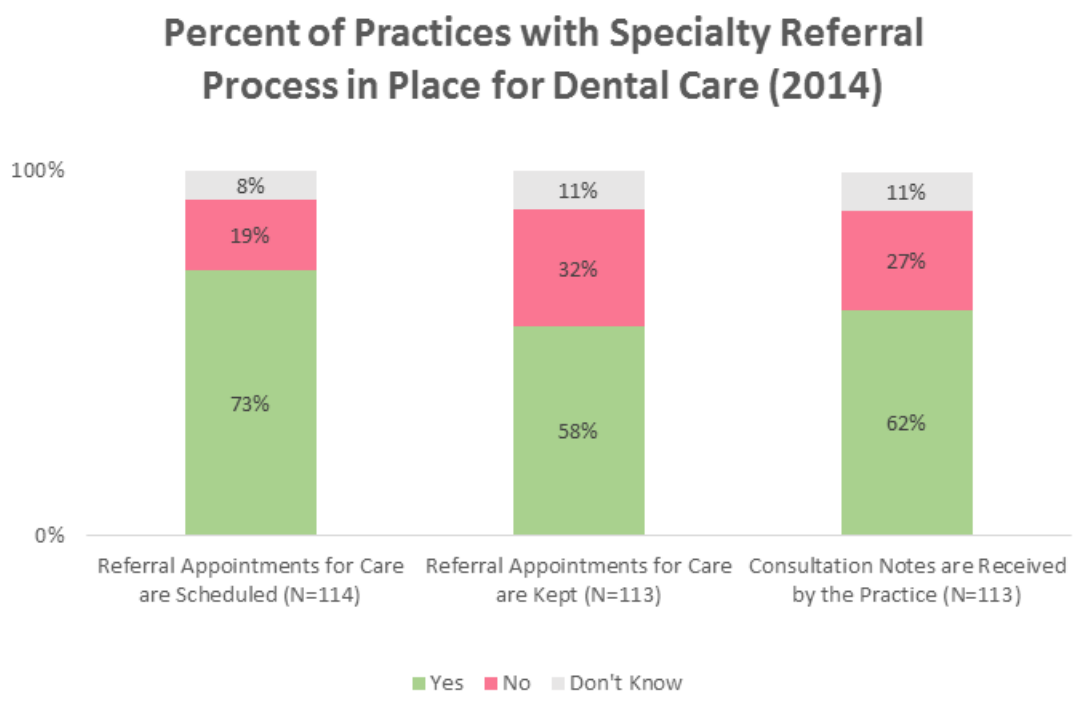
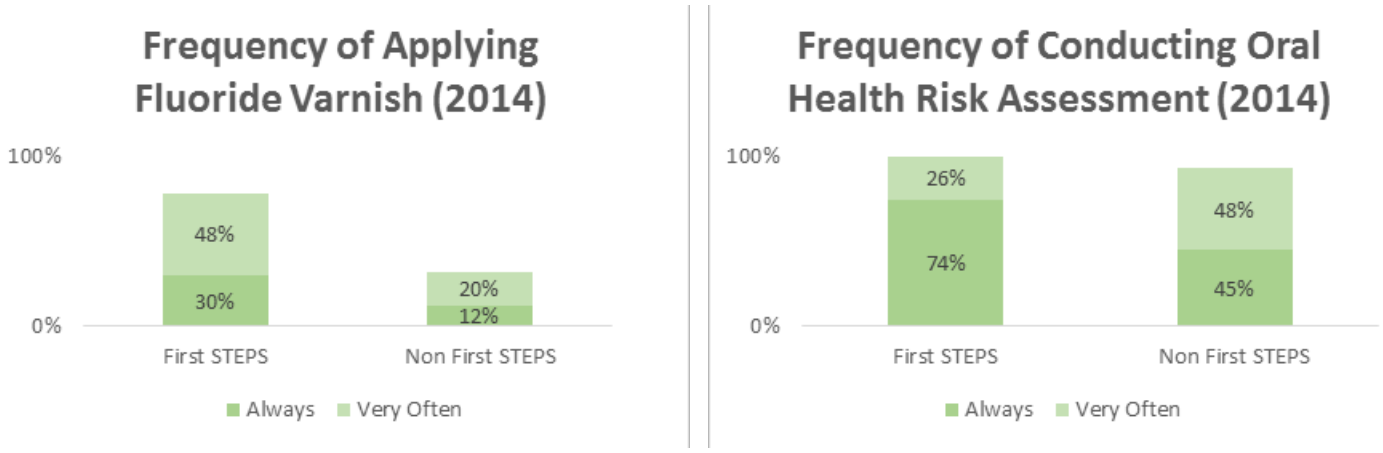



**CHART 27**



# Use of Data Systems to Track and Monitor Quality Improvement

A primary goal of Maine's IHOC initiative was to build a health information technology infrastructure to support the reporting and use of quality information. Part of this work including testing HIT solutions for generating clinical CHIPRA core child health measures from Maine's statewide registry and the state's health information exchange, HealthInfoNet. To inform this work, in 2011 we had asked pediatric and family practices questions about their adoption of EHRs and interoperability and use of these other data systems. In 2014 survey we assessed how the HIT environment in pediatric and family practices had changed and also added questions to assess practices' awareness and use of specific features or modifications to these data systems that were developed or became available during IHOC.

## Electronic Health Records and Bright Futures

As noted earlier in the report, by 2014, 94% of the responding practices had an EHR installed and in use in all (90% or more) areas of the practice. This represents a significant increase over the 78% of practices that had fully installed EHRs in 2011 (p=.006).

Since part of IHOC's HIT measure testing focused on collecting Bright Futures clinical measures electronically, we asked the practices about the level of integration of Bright Futures forms (for EPSDT) into their EHR systems. Six in ten of the responding practices indicated that Bright Futures forms were built into the EHR. Seventeen percent of the responding practices use a paper system. Thirteen percent have an electronic system not interfaced with their EHR and 4 percent reported that they have an electronic system interfaced to the EHR. Five percent indicated that they had no EHR so the question was not applicable to them.

## ImmPact - Maine's Immunization Registry

In 2014, nearly all responding practices (95%) reported that they use the State of Maine immunization registry and information system, ImmPact. ImmPact is a population-based Web application containing consolidated demographic and immunization history information. ImmPact is able to perform a variety of functions for health care providers, including: recording immunizations, contraindications, and reactions; validating immunization history and providing immunization recommendations; producing recall and reminder notices, vaccine usage and client reports, and managing vaccine inventory. A large majority of the responding practices use most ImmPact functions, e.g. for patient immunization data entry (92%), to review patient up-to-date immunization rates (92%), for per dose immunization inventory management (90%), to generate immunization coverage report for the practice as a whole (84%), and for aggregate immunization inventory management (82%). There were no significant differences between 2011 and 2014 on practice use of these ImmPact features.

In 2014, only one-third of the responding practices (36%) used ImmPact to generate reminder/recall letters, which was significantly fewer than in 2011 (45%). This was consistent with findings from the evaluation of First STEPS Phase I initiative that revealed that many practices preferred to use their own reminder/recall letters generated from their EHRs.

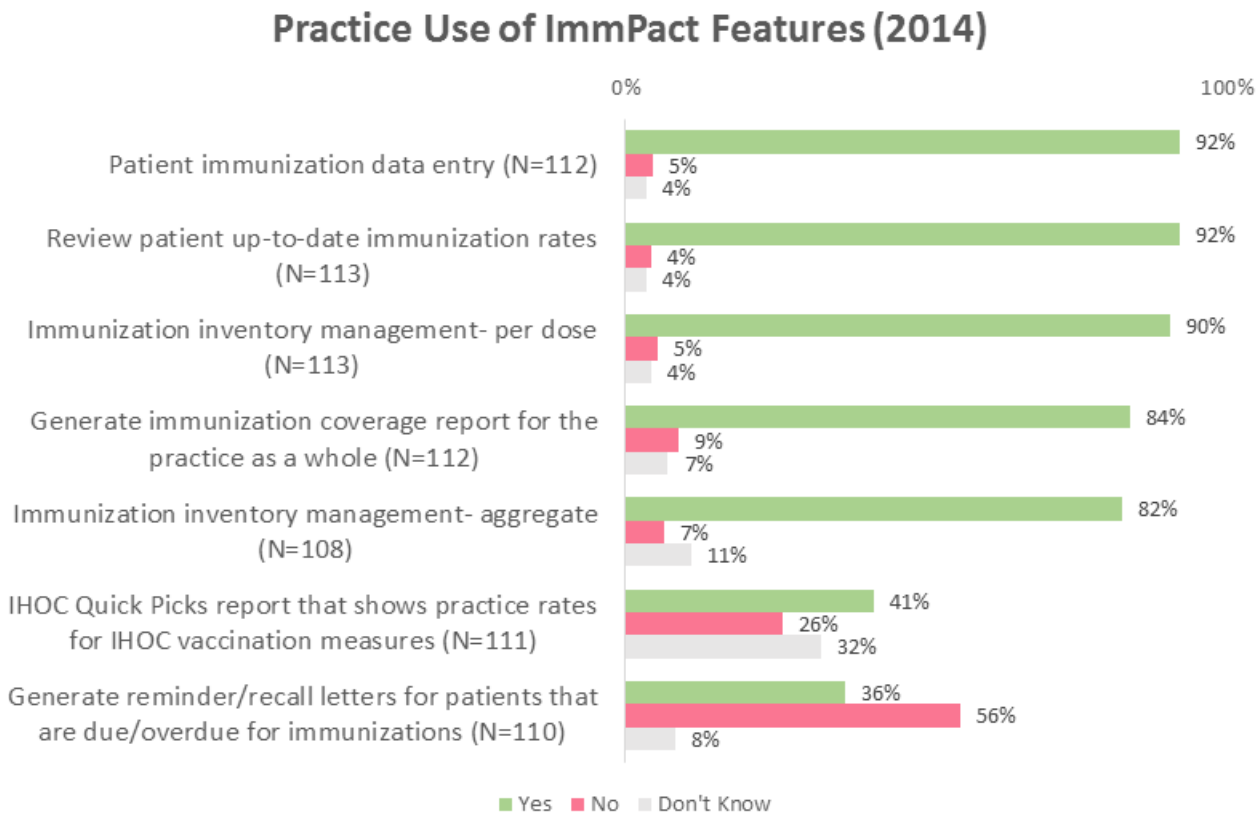
**TABLE 7**

| Practice Use of ImmPact | | |
|---|---|---|
| | 2011 | 2014 |
| Practice use of ImmPact | 94% | 95% |
| Patient Immunization Data Entry | 97% | 92% |
| Review Patient Up-to-Date Immunization Rates | 92% | 92% |
| Immunization Inventory Management – Per Dose | 92% | 90% |
| Generate Immunization Coverage Report for the Practice as a Whole | 84% | 84% |
| Immunization Inventory Management – Aggregate | 83% | 82% |
| Generate Reminder/Recall Letters for Patients Due or Overdue* | **45%** | **36%*** |

During IHOC, project staff, working with the Maine Immunization Program, added "IHOC Quick Picks" an ImmPact function that allows staff using the registry to generate IHOC/CHIPRA immunization measures for their practices, which became available statewide in December 2013. IHOC also worked with MHMC's Pathways to Excellence public reporting program to include IHOC child health immunization measures from ImmPact Quick Picks. In 2014, 41% of the responding practices indicated that they use this function, 26% said they did not, and 32% said they did not know whether the practice uses this relatively new function. This statistic suggests the need continued training for or communication to practices on the availability and benefit of IHOC Quick Picks. *Practices that had participated in any phase of First STEPS were significantly more likely to report using IHOC Quick Picks (p=.051), with 63% of First STEPS practices and 36 percent of non-First STEPS practices reporting that they used Quick Picks. Pediatric practices were significantly more (61%) likely than family practices (35%) to report using IHOC Quick Picks (p=.031).*

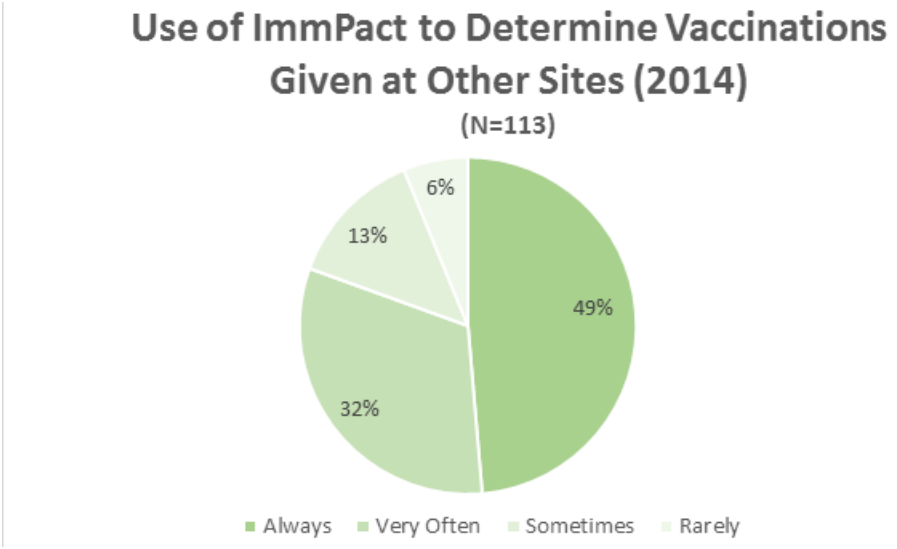
Finally, about half (51%) of the responding practices reported that they routinely send electronic data from their EHR to ImmPact. Forty-three percent (43%) reported they routinely receive electronic data from ImmPact. *Family practices were significantly more likely to report that they electronically send and receive clinical and patient data with ImmPact, with 53% of responding family practices, compared to 24% for pediatric practices (p=.004).*

**CHART 28**




The survey also included an item about the frequency of practice consultation with ImmPact to determine if any vaccinations were received at alternative sites. In 2014, nearly half (49%) of the responding practices reported that they always, 32% very often, 13% sometimes, and 6% rarely consult the ImmPact registry to determine whether vaccinations were received at alternative sites.

**CHART 29**




### HealthInfoNet - Maine's Health Information Exchange

One technological solution tested under IHOC for producing EPSDT clinical measures was to investigate the feasibility of producing these measures through Maine's Health Information Exchange. To inform these efforts, the survey included questions about pediatric and family practices' use of and degree of data-sharing with Maine's HIE, HealthInfoNet (HIN). HIN manages a secure computer system for providers to share health information from their EHR with the objective of improving patient care. The HIE system links medical information from separate health care sites to create a single electronic patient health record, then allows authorized providers to see that record to support patient care. In 2014, we asked more detailed question on specific functions that had been added to HIN functionality during the IHOC time period to assess their use by pediatric and family practices.

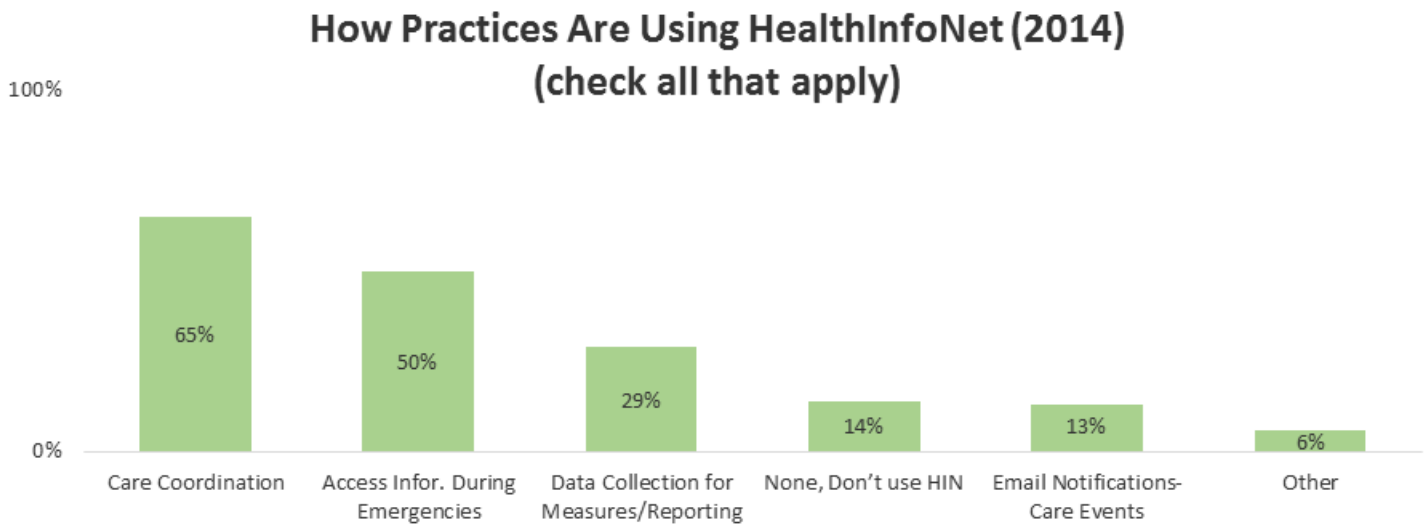
Nearly three-quarters of the responding practices (74%) reported that they use HIN tools; 20 percent said they did not; and six percent said they did not know., Less than half (43%) shared or sent information from the practice EHR to HIN (14% did not, 14% did not know, and 2% selected N/A-No EHR). Practices using HIN most commonly reported using it for care coordination (65%), to access information during emergencies (50%), for data collection for quality measures/reporting (29%), and to email notification about care events (13%). Six percent reported that they also use HIN for another purpose. (Possible uses include: laboratory results follow up, e.g., monitoring patients' laboratory results, e.g. hemoglobin and glucose levels and emergency department (ED) and inpatient discharge follow up, for example, reading emergency department and inpatient notes on care plan, medication prescribed, etc.)

*Family practices were significantly more likely to use HIN tools, with 81 percent of family practices, compared to 56 percent of pediatric practices (p=.008). Family practices were also significantly more likely to use HIN to email notifications about care events (family practices 17%, 3% pediatric practices, p=.057), for data collection for quality measures/reporting (39% for family practices, 3% for pediatric practices), and to access information during emergencies (57% family practices, 30% pediatric practices, p=.011).*

**TABLE 8**

| Practice Use of HIN Tools (2014) | | | |
|---|---|---|---|
| | Yes | No | Don't Know |
| Does Practice Use HIN Tools (N=113) | 74% | 20% | 6% |
| Does Practice Share/Send Information from EHR with HIN (N=113) | 43% | 41% | 14% |

**CHART 30**




## Financial Incentives for Quality Improvement

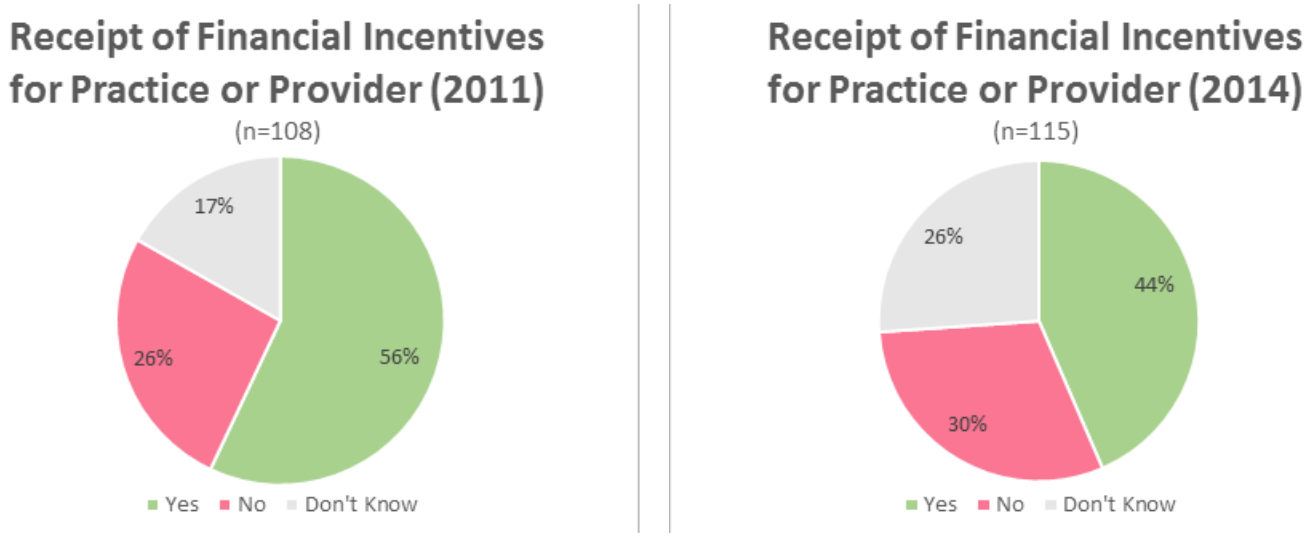
Financial incentives for quality measure improvements may have a positive effect on performance of clinical quality indicators in primary care and can be used to reward or encourage demonstrated performance in clinical practices against quality criteria such a standards of care. Under incentive programs, physicians or practices (and increasingly larger health care organizations such as accountable care organizations, who meet criteria receive enhanced compensation. The survey included a number of items on practice:

- receipt of financial incentives for quality improvement,
- receipt of financial incentives in specific areas of preventive care,
- participation in public reporting through pathways to excellence, and
- use of and familiarity with MaineCare's primary care case management utilization review (UR) process.

The pie charts below show the receipt of financial incentives at responding practices in 2011 and 2014.

In 2014, fewer practices reported receiving financial incentives than in 2011. In 2011, 56 percent of the practices reported receiving incentives, whereas in 2014, 44 percent did. This is consistent with the significant decline in practices reported reliance on financial incentives as a vehicle or tool for quality improvement that was discussed earlier in the report,

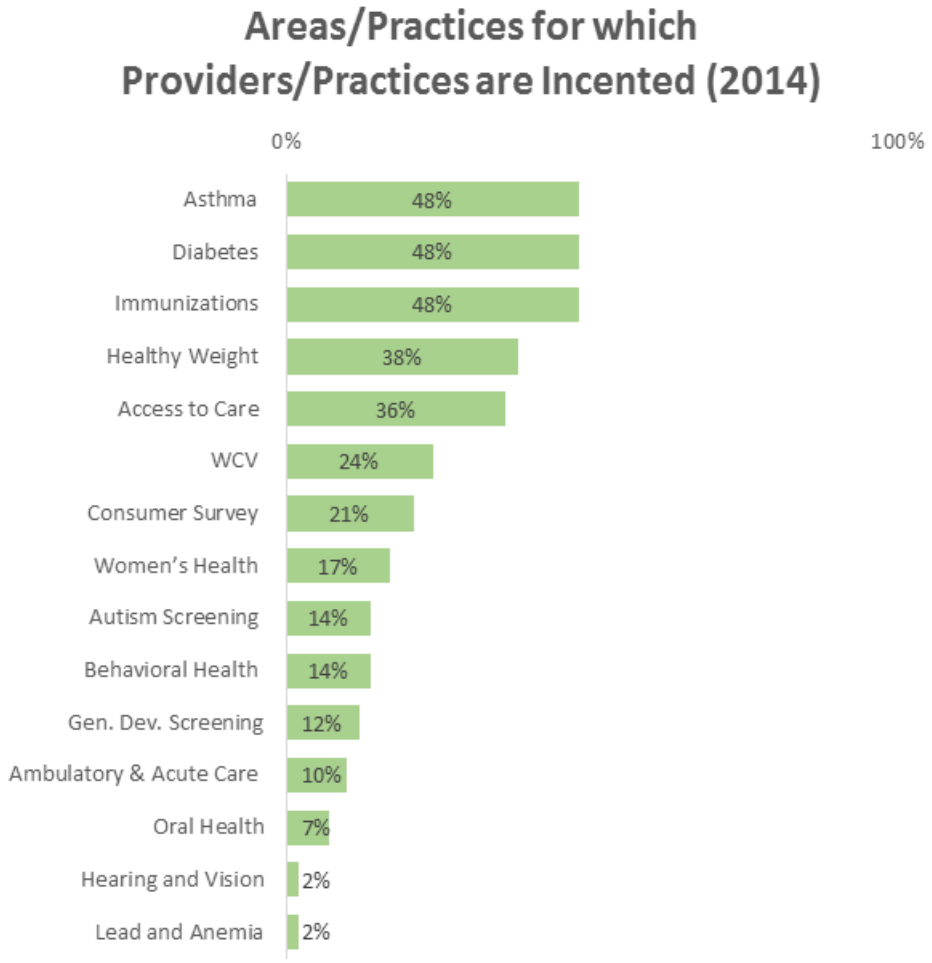
**CHART 31**




Of the practices that reported receiving financial incentives, about half (48%) received incentives for performance related to asthma, diabetes, and immunizations. About one-third reported receiving financial incentives related to performance on healthy weight (38%), and access to care (36%). Smaller proportions of the responding practices reported receiving financial incentives in a number of other areas (see below).

*First STEPS practices were significantly more likely than other practices to report that the practice or providers in it receive incentives for autism screening (31% of First STEPS, 7% non-First STEPS, p=.041) and asthma (77% First STEPS, 35% non-First STEPS, p=.011). Practices that had not participated in First STEPS were significantly more likely to report incentives for diabetes (62% other practices, 15% First STEPS practices, p=.005) and women's health and perinatal care (24% other practices, 0 First STEPS practices, p=.052). Pediatric and family practices differed significantly in the proportion of practices reporting receiving financial incentives in several areas. Pediatric practices were significantly more likely to report receiving incentives for immunizations (78%, compared to 25% for family practices, p=.001), autism (28%, compared to 4% for family practices, p=030), and asthma (72%, compared to 29% for family practices, p=.006). Family practices were significantly more likely to report receiving incentives for access to care (50%, compared to 17% for pediatric practices, p-.026) and diabetes (79% compared to 6% for pediatric practices, p=.000).*

CHART 32




## Awareness and Use of Maine's Child Health Measurement and Quality Improvement Initiatives

The IHOC initiative was intended to build a sustainable child health quality infrastructure in the state. IHOC worked with stakeholders and partners in the state to reach consensus on a list of child health measures (the IHOC child health measures list) identified as needing further quality improvement, establishing the First STEPS learning collaborative to provide measure-driven QI support for practices, and aligning or integrating child health quality measures with other existing statewide quality efforts, such as MaineCare Utilization Review (UR) Reports and Maine's public reporting program, Pathways to Excellence (PTE).

### Familiarity and Use of MaineCare UR Reports

Many health insurers and health plans in Maine, including MaineCare, provide data to practices about the quality of care provided to health plan members receiving care from that practice. Data provided and quality measures included in these reports vary by health plan. Some payers also provide additional payment incentives to practices that perform above certain thresholds on specific quality measures.

As part of MaineCare's Primary Care Case Management (PCCM) program, participating primary care practices are sent bi-annual utilization review reports (UR reports) that summarize the utilization, costs and quality of care provided to MaineCare members in the practice's panel compared to other providers. These reports are generated from MaineCare claims and are intended to provide comparative performance information to practices for quality improvement and to serve as an educational tool for physicians. Practices are expected to review these reports and advise the Office of MaineCare Services of any errors. (MaineCare benefits manual (Ch 6, Sec 1)) As part of the IHOC initiative's effort to increase reporting and use of CHIPRA/IHOC child health measures, MaineCare added eight new child health measures to the UR reports. Furthermore, during IHOC's First STEPS Learning Collaboratives, participating practices were provided with their practice's UR reports and offered instruction about the purpose and interpretation of the reports. Since prior reports had shown variable use of UR reports by PCCM practices (both adult and child), the 2011 practice survey had included many detailed questions about pediatric and family practices' awareness, use and suggested modifications to the UR reports to make them more useful to practices.[4] The 2014 survey included a more limited number of questions to assess how use of these reports may have changed after IHOC-related modifications and greater exposure to the UR reports through First STEPS.

Results of the surveys indicate that, while significantly fewer practice report that they are reviewing UR reports in 2014, compared to 2011, for those that review them, a significantly greater proportion of practices in 2014 1) use them to monitor care for MaineCare members, and 2) report higher levels of (moderate) influence of UR reports on practice operation. The mixed findings related to review, use and influence of MaineCare UR reports on practice operations suggests the need for continued education with providers about these reports and how they might inform quality improvement. More specifically, in 2014, most (61%) respondents (N=108 in 2011, 114 in 2014) reported that their practice reviews MaineCare PCCM Utilization Review (UR) reports when they are sent to the practice; significantly *fewer* (p=.015) than the 71% that reported reviewing the reports in 2011. Though all practices in the survey sample were in the PCCM program as of December 2009, 20% of respondents indicated they did not receive UR reports and 16% did not know if their practice reviewed them.

For practices that review the reports (N=84 in 2011, N=69 in 2014), a significantly greater proportion of practices, 73% in 2014, compared to 56% in 2011, (p=.083) reported that they use UR reports to monitor care quality for MaineCare patients. The distribution of practice by reported extent of UR influence on practice operations also changed significantly, with far more practices reporting moderate UR influence in 2014 (52%) compared to 2011 (31%) and far fewer reporting that UR reports had very little or no influence on practice operations (25% in 2014 compared to 48% in 2011) (p=.000). [Significance testing for this question was performed on data that was grouped (for very little or not at all) to ensure appropriate cell size.]

Practice managers were cited most frequently as reviewing UR reports. Nearly half of the practices indicated that practice managers review the reports (47%). Practices also said that physicians (18%), mid-level practitioners (10%), and medical directors (9%) or review the UR reports.

*Comparisons by First STEPS participation show a decline in the percent of practices reporting that they review UR reports, but the decline was significant only among practices that did not participate in First STEPS (p=.015).*

4 Bowe, T., Thayer, D., McGuire, C., Leighton, A. (2009, October). MaineCare Practice: Physician and Office Manager Surveys. Portland, ME: University of Southern Maine, Muskie School of Public Service.

**TABLE 9**

| Practice Review and Use of MaineCare UR Reports | | |
|---|---|---|
| % of Responding Practices Reporting | 2011 | 2014 |
| Review UR Reports when Available from PCCM (p=.015) | 71% | 61%* |
| | N=108 | N=114 |
| Use UR Reports to Monitor Quality of Care for MaineCare Patients (p=.083) | 56% | 73%* |
| | N=84 | N=69 |
| UR Reports Influence Practice Operations (p=.000) | N=84 | N=69 |
| A Great Deal | 10% | 10% |
| Moderately | 31% | 52%* |
| Very Little or Not at All | 48% | 25% |
| Don't know | 12% | 13% |

**CHART 33**

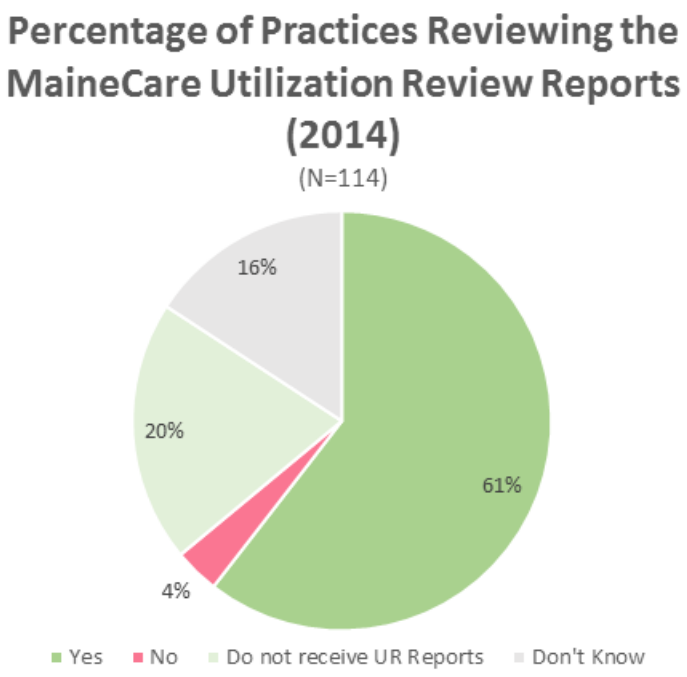


**CHART 34**

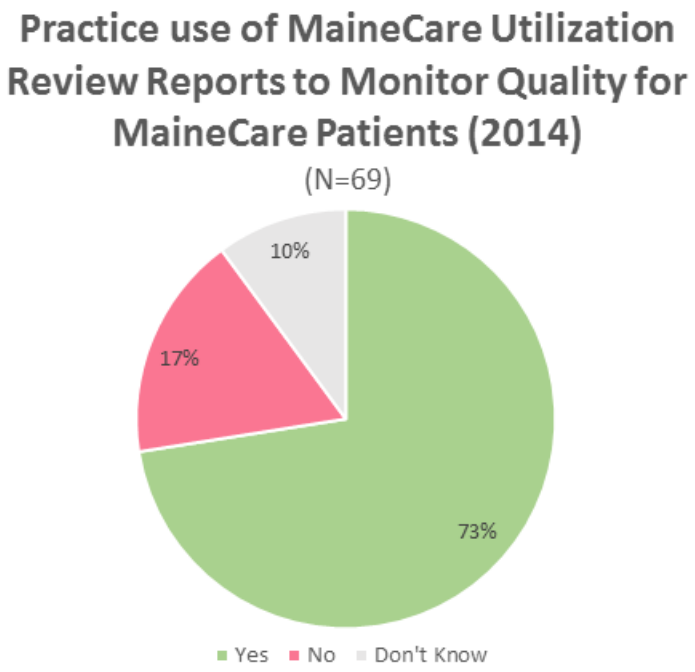
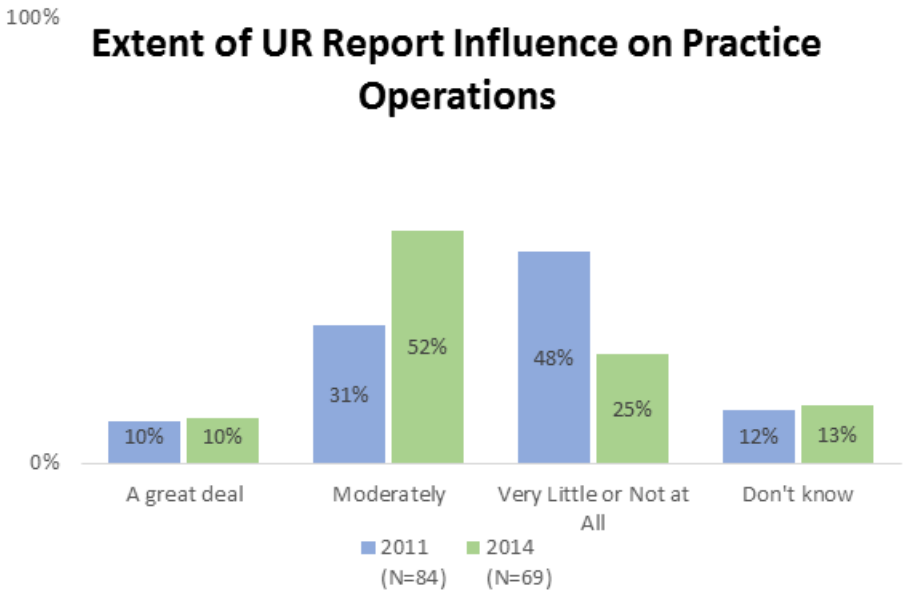



**CHART 35**



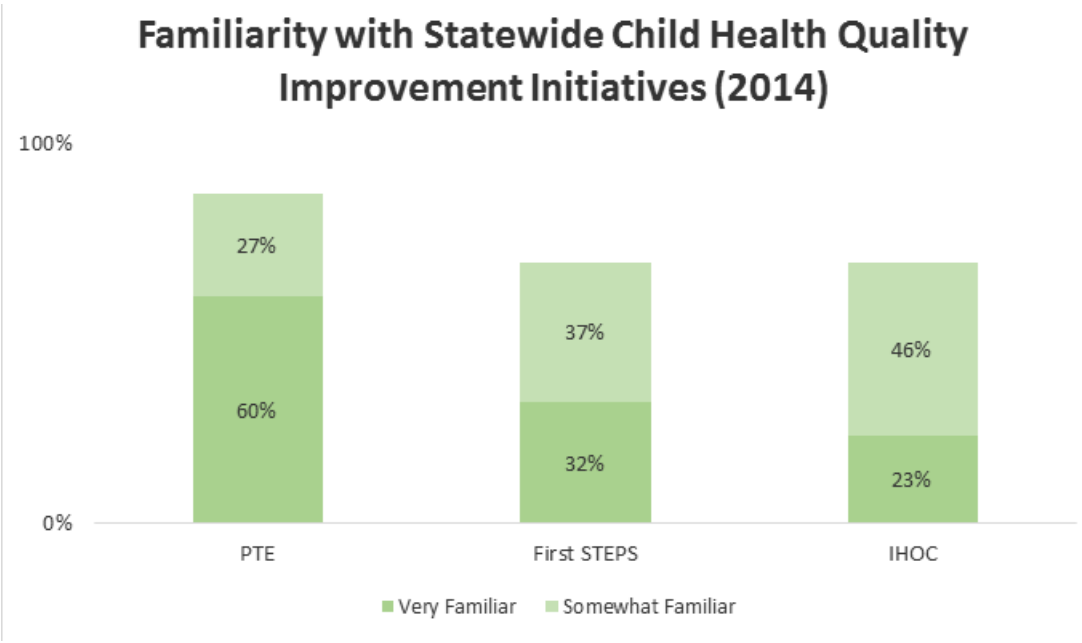
### Familiarity with Statewide Child Health Quality Improvement Initiatives

In the 2014 survey, practices were asked about their familiarity with and participation in these initiatives. One of the objectives of the 2014 survey was to gather statewide data about child-serving practices' familiarity with statewide child health quality improvement initiatives. Not surprisingly, a higher proportion of the responding practices reported being very, or somewhat familiar with Maine Health Management Coalition's pathways to excellence (PTE) than with the IHOC initiatives. Sixty percent of the responding practices were very familiar with PTE (27% were somewhat familiar). Practices were less likely to report that they were very familiar with First STEPS, IHOC, and IHOC Pediatric Quality Measures. One third of the practices reported that they were very familiar with First STEPs (37% somewhat familiar). About a quarter (23%) reported that they were very familiar with IHOC (46% somewhat familiar). Fewer, 13 percent reported being very familiar with IHOC Pediatric Quality Measures (49% somewhat familiar). These differences in familiarity may be due in part to the age of the programs. At the time of the survey, the IHOC initiative was about five years old, whereas PTE's public reporting work began over eight years ago.

*The 2014 survey revealed that pediatric practices are significantly more likely to report greater familiarity with IHOC, IHOC First STEPS, and IHOC Pediatric Quality Measures:*

- *43% of pediatric, versus 14% of family practices were very familiar with IHOC (p=.003),*
- *60% of pediatric, compared to 18% of family practices were very familiar with IHOC First STEPS (p=.000), and*
- *34% of pediatric, versus 4% of family practices were very familiar with IHOC Pediatric Quality Measures (p=000).*

**CHART 36**



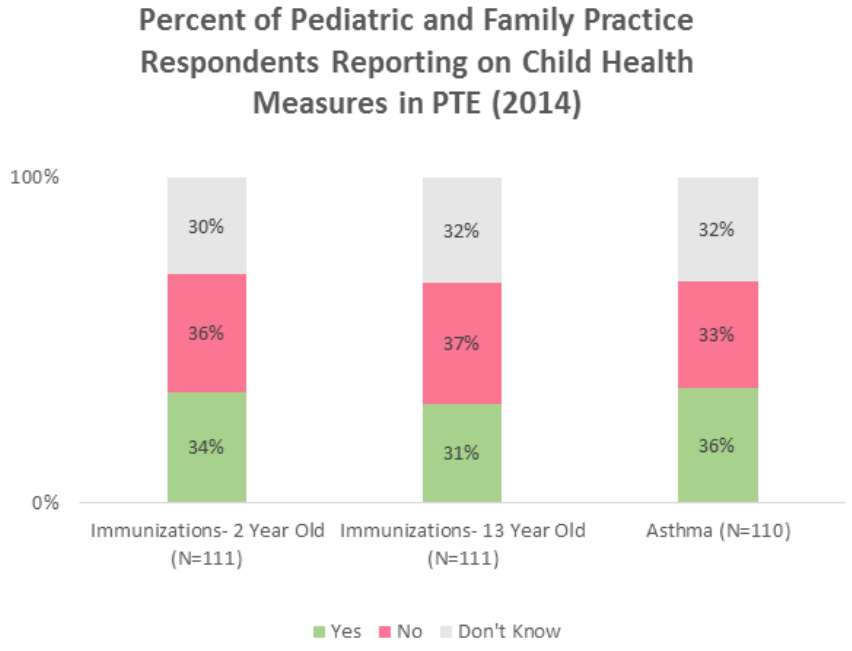
## Reported Participation in Public Reporting of Child Health Quality Measures

Another objective of the 2014 survey was to learn from the practices about their participation in PTE's public reporting of IHOC Pediatric Quality Measures. While a large proportion of respondents (about 30% for each item), reported that they did not know, 36% reported the asthma measure, 34% reported the 2 year-old immunization measure, and 31% reported the 13 year-old immunization measure to PTE. These survey estimates of approximately 34-39 pediatric and family practices indicating they reported on PTE measures closely correspond with the actual number of practices publicly reporting child health measures in PTE in 2015 (i.e. approximately 39 practices reporting on child immunization rates and 42 reporting on child asthma measures in PTE)

*Practices that had participated in any phase of First STEPS were significantly more likely to report each of the PTE pediatric quality measures. Fifty-eight percent of the First STEPS practices versus 27 percent of the other practices indicated that they report the 2 year-old immunization measure to PTE (p=.016). Similarly, for 54 percent of the First STEPS, versus 24 percent of other practices, indicated that they report to PTE the 13 year-old immunizations measure (p=.013). This also may reflect First STEPS practices greater exposure and use of the IHOC Quick Pick reports in ImmPact which were utilized for PTE public reporting. Also, First STEPS practices, compared to other practices, were significantly more likely to report to PTE the asthma measure. Sixty-two percent of First STEPS practices, versus 27 percent of other practices reported the asthma measure (p=.003).*

*Pediatric practices responding to the survey were also significantly (p=.000 for each item) more likely to indicate that they report PTE child health quality measures: 2 year-old immunizations (65% pediatric, 21% family), 13 year-old immunizations (pediatric 65%, family, 16%), and asthma (71% pediatric, 20% family).*

**CHART 37**



### Familiarity and Use of Maine's IHOC Pediatric Quality Measures

The survey also asked about the frequency with which responding practices use the IHOC Pediatric Quality Measures in their practices. As shown in the following chart, nearly half of the responding practices reported that they use several of the measures, particularly some that were topics covered at First STEPS learning collaboratives, a great deal or moderately: immunizations (49%), asthma (47%), WCVs (46%), healthy weight (45%), and access to care (45%). IHOC Measures that were used less often by responding practices were: women's health and perinatal care (26%), consumer survey (29%) ambulatory and acute care (33%). *Not surprisingly, First STEPS practices were significantly more likely to report familiarity with two measures: developmental and autism screening (p=.019) and oral health (p=.039) measures. Also, pediatric practices were significantly more likely than family practices to report familiarity with five of the IHOC Pediatric Quality Measures: WCVs (55% pediatric, 25% family, p=.048), developmental and autism screening (50% pediatric, 12% family, p=.002), healthy weight (50% pediatric, 21% family, .026), lead/anemia (46% pediatric, 16% family (.031),* It should be noted that a rather large proportion of the practices (about 30% for each item) reported that they did not know how often their practice used the IHOC Pediatric Quality Measures.

**CHART 38**

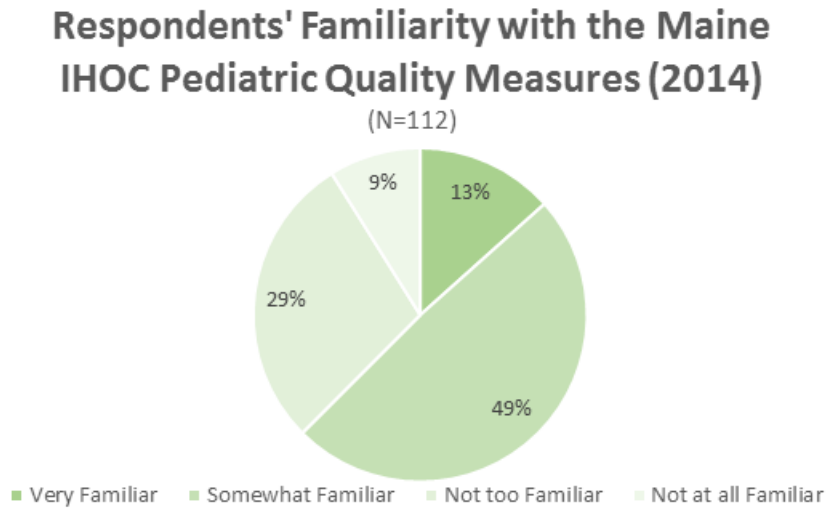
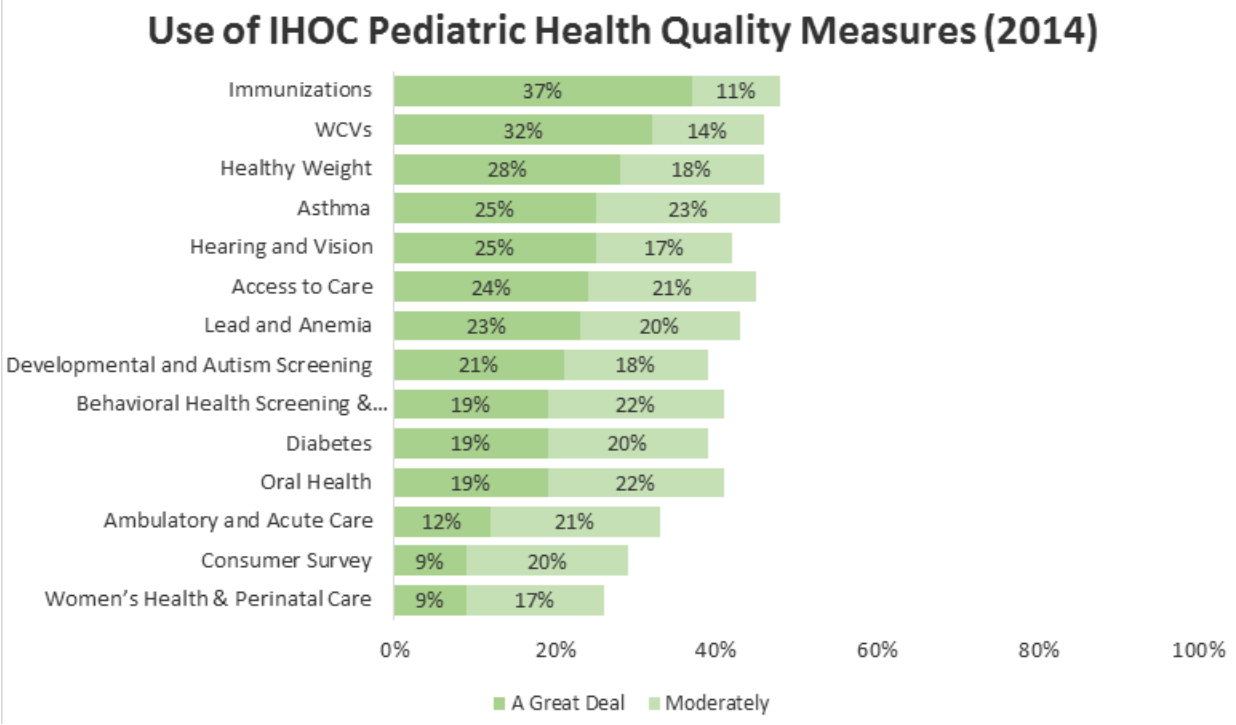


**CHART 39**




## Awareness and use of MaineCare Coding and Billing Changes in Support of Child Health Quality Improvement

During IHOC's First STEPS, MaineCare adopted several coding and billing changes in support of child health quality improvement. The 2014 survey included several items about practice familiarity with MaineCare policy changes allowing providers to separately code and bill MaineCare for preventive services. For developmental screening, MaineCare clarified coding and billing policies in an effort to inform providers that separate reimbursement for these screens was available and to improve claims reporting to be able to distinguish between general developmental screening and autism screening rates. Under CPT code 96110, providers may bill for general developmental screening using a validated tool such as the ASQ or PEDS. The same billing code, with the modifier HI, may be used for the initial autism screen, e.g. using M-CHAT 1 or MCHAT-R. MaineCare also allows providers, generally specialists, to bill for autism follow-up under CPT 96111 with modifier HK, e.g. using M-CHAT 2 or M-CHAT-F. For oral health, MaineCare also issued a new billing code (CPT code D0145) to reimburse primary care practices for oral health risk evaluations for children under 3 years of age, to encourage and support practices in providing preventive oral health for children and referring at-risk MaineCare children to a dental home.

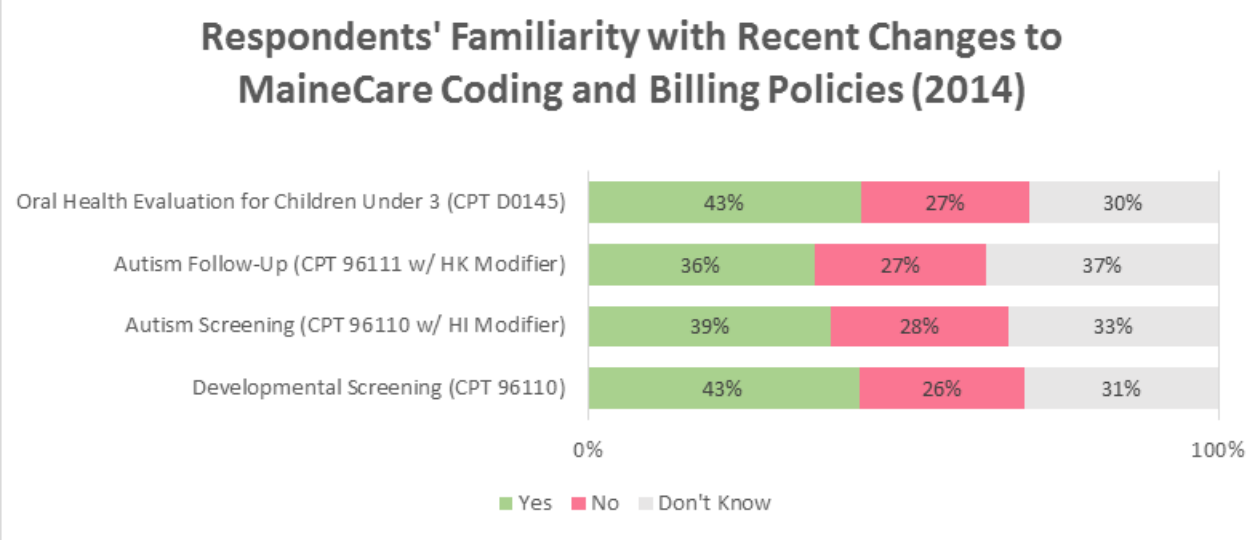
Nearly half of the responding practices in 2014 reported that they were aware of coding and billing policy changes for oral health evaluation for children under 3 years of age (43%) and for general developmental screening (43%). Slightly fewer reported familiarity with the changes to coding and billing policies for the initial autism (39%) or autism follow-up (36%). These percentages of practices that were aware of these coding changes far exceed the percent of practices participating in First STEPS, suggesting that First STEPS

focus on these areas may have contributed to spread to other practices statewide. However, for each of these coding changes, a substantial proportion of respondents(about one-third for each) reported that they did not know about them, suggesting the need for continued education of providers.

*First STEPS practices were more likely to report that they were aware of the developmental screening, autism screening, and autism follow-up coding and billing changes. Compared to the non-First STEPS practices, practices that had participated in any phase of First STEPS (69%) were significantly more likely than other practices (35%) to indicate awareness of the developmental screening coding and billing policies (p=.008). The same is true for autism screening with 65% of First STEPS practices, compared to 31% of the other practices reporting that they were aware of MaineCare coding and billing policies for autism screening (p=.006). Similarly, for autism follow-up, First STEPS practices were significantly more likely to report awareness. Fifty-eight percent of First STEPS practices, compared to 30% non-First STEPS indicated that they were aware of coding and billing policies for autism follow-up (p=.029). Awareness of MaineCare coding and billing policies were not significantly different for oral health risk assessment, which may be due to the fact that for oral health, First STEPS worked in close partnership with the statewide First Tooth program, which as a result of this partnership had modified statewide training and technical assistance to include education of practices on these new coding changes and integration of OHRA into practice electronic health records.*

*Pediatric practices were more likely to report awareness of MaineCare coding and billing changes for developmental screening with 63% of pediatric practices, compared to 34% of family practices reporting (p=.017). Pediatric practices were also more likely to report having made changes in their practice as a result of MaineCare coding and billing changes in two areas, developmental screening (40% pediatric, 8% family practice p=.000) and autism screening (24% pediatric, 4% family practice p=.000). .*

**CHART 40**

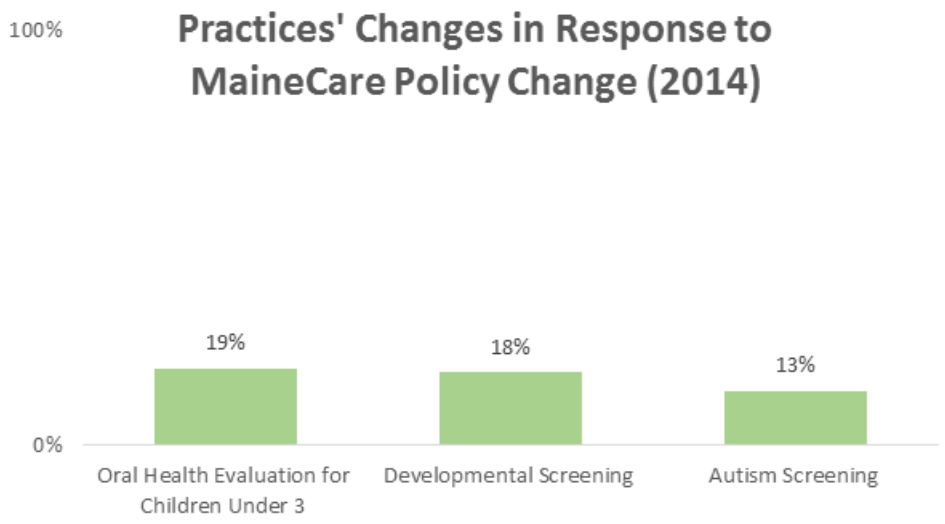



At the time of the follow-up survey, 41% of the responding practices reported that they had made, were in the process of making, or planned to make changes in response to MaineCare coding and billing policy changes for general developmental screening. Eighteen percent had not made changes and 42% of the

respondents did not know whether the practice had made changes. The distribution of responses for autism screening and oral health evaluation were very similar (see below).

*First STEPS practices were significantly more likely to report making changes as a result of MaineCare policy changes for developmental screening. Thirty-eight percent of First STEPS practices, compared to 11 percent of the other practices reported that they had made changes as a result of MaineCare policy changes for developmental screening (p=.025).*

**CHART 41**




## Practice Interest in Topics for Future Learning Collaboratives

To help inform future child health quality improvement work, the 2014 survey asked practices to indicate which topics were of interest for future learning collaboratives. Practices were asked to select all topics of interest from a list of 17. The table below illustrates the percent of practices that selected each topic. The most common topics selected include: ADHD (41%), developmental/autism screening (39%), adolescent health (35%), healthy weight (33%) asthma (32%), depression (32%), substance use (30%), Adverse childhood experiences (28%), care coordination (28%), and WCV workflow strategies (28%).

**TABLE 10**

| Practice Interest in Topics for Future Learning Collaboratives | | | |
|---|---|---|---|
| Topic | Percent | Topic | Percent |
| ADHD | 39% | WCV Workflow Strategies | 28% |
| Developmental/Autism Screening | 39% | Drug Affected Infants | 17% |
| Adolescent Health | 35% | Oral Health | 17% |
| Healthy Weight | 33% | Lead | 15% |
| Asthma | 32% | Adolescent Immunizations | 13% |
| Depression | 32% | Management of Children with Genetic Disorders | 10% |
| Substance Use | 30% | Obtaining Family Medical History | 8% |
| Adverse Childhood Experiences | 28% | Genetics in Primary Care | 6% |
| Care Coordination | 28% | | |

*Practices that had not participated in any phase of First STEPS were significantly more likely to report that the practice would benefit from a learning collaborative in developmental or autism screening (p=.038), with 51% of the non-First STEPS practices reporting they would benefit, compared to 28% of the First STEPS practices.*

*Family practices (58%) were significantly more likely than pediatric practices (19%) to report that their practice could benefit from a learning collaborative about developmental/autism screening (p= 000). Pediatric practices were more likely (50%) to report that their practice would benefit from a learning collaborative focused on care coordination than family practices (27%)(p=.021). These findings may suggest a differential learning collaborative approach and topic selection for family and pediatric practices in the future.*

## CONCLUSIONS AND IMPLICATIONS FOR FUTURE CHILD HEALTH QUALITY WORK IN MAINE

The results of this survey of Maine pediatric and family practices suggest that IHOC and First STEPS have contributed to broader awareness, knowledge and use of many child health quality measures and related quality improvement guidelines and strategies. Compared to 2011, significantly more practices statewide are reporting that they are following recommended office practices (such as pre-visit planning and identifying and contacting patients who are behind schedule for preventive care), setting preventive health targets and using evidence-based practices and tools to delivering recommended preventive care particularly in topic areas addressed by First STEPS (e.g. checking immunizations systematically at every visit, administering a lead

screening questionnaire for children at age 1 and 2, and using an autism-specific screening tool between 16 and 30 months of age).

Furthermore, practices that participated in any phase of the First STEPS phases were significantly more likely to see improvement than other practices, particularly in First STEPS topic areas, suggesting that Maine's IHOC model of learning collaboratives for primary care practices in combination with state policy change and infrastructure improvements can help to bring about positive changes not only among participating practices, but among practices statewide. Primary care practice improvement efforts that incorporate system-level changes (i.e. billing and coding changes and practice-level HIT reporting solutions) with practice-level learning collaboratives can be effectively used to improve the delivery of preventive care, participation in public reporting, awareness of and change in response to MaineCare policy changes.

The results in these surveys can also be used to inform future child health quality improvement initiatives and areas where pediatric and family practices may require further education and training. For example, while some progress has been made on building awareness and use of child health quality metrics and measures for internal quality improvement and public reporting for practices that use them, more work is needed to increase awareness and use of MaineCare UR reports, ImmPact's IHOC Quick Picks functions, and MaineCare coding and billing policies, particularly among child-serving family practices and practices that have not participated in First STEPS. This might suggest that future learning collaboratives be targeted to more practices statewide. The almost universal adoption of EHRs in pediatric and family practices as well as increasing awareness and use of the Health Information Exchange may suggest more opportunities for enhancing their use as part of future trainings and measure collection. Survey results also may help to inform future learning collaborative topics. Most practices indicated that the areas of greatest interest for

future training is around adolescent health or for specific behavioral health areas affecting older children (e.g. ADHD, depression, etc.), which correspond with topics areas that MaineCare has identified for future work. Family practices that have not previously participated in First STEPS were also interested in more training on developmental screening, suggesting that another phase of these trainings for a broader group of practices, possibly targeted toward family practices may be warranted.

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