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## The Maine Patient Centered Medical Home (PCMH) Pilot: Implementation Evaluation

Susan M.C. Payne PhD, MPH

*University of Southern Maine, Muskie School of Public Service*

Carolyn E. Gray MPH

*University of Southern Maine, Muskie School of Public Service*

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# **The Maine Patient Centered Medical Home (PCMH) Pilot**

## **Implementation Evaluation**

### **Final Report**

**Susan Payne, PhD, MPH  
Carolyn Gray, MPH**

**University of Southern Maine  
Muskie School of Public Service  
Cutler Institute for Health and Social Policy**

**May 4, 2011**



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## Executive Summary

### Introduction

The purpose of this Maine Patient Centered Medical Home (PCMH) Pilot is to improve quality of care, efficiency, and patient/family satisfaction provided by primary care practices. Its premise is that the resources provided to practices through the Pilot (including enhanced payments, training, consultation, and learning collaborative) will help them transform themselves and reach a higher level of functionality as medical homes, which in turn will lead to improvements in quality of care, efficiency, and patient/family satisfaction. The three-year Pilot was convened by MaineCare, the Maine Quality Forum, and Quality Counts. The participating payers are MaineCare (Maine Medicaid), Aetna, Anthem, and Harvard Pilgrim Health Care.

Three aspects of the Pilot are being evaluated by the Muskie School of Public Service: 1) patient's experiences; 2) the implementation process and interim results during Year 1; and 3) changes in the quality and efficiency of primary care. This report focuses on findings from the implementation evaluation.

A national evaluation of a PCMH demonstration concluded that several factors, including practices' workplace culture and resilience (or "adaptive reserve," including communication, leadership, learning culture, teamwork and work environment) were major determinants in the degree to which practices could transform themselves into medical homes. The implementation evaluation describes the processes the Pilot practices engaged in during the first year and profiles adaptive reserve and several other factors that may contribute to their success in achieving the Pilot's objectives.

The objectives of the implementation evaluation are to

- Profile the characteristics of the Pilot practices
- Describe the practices' objectives and strategies for implementing the Pilot
- Describe the implementation process during Year 1
- Provide practical guidance to the practices, the Pilot conveners, and MaineCare
- Develop profiles of the Pilot practices for use in the quality and efficiency evaluation
- Make recommendations for use by evaluators of other PCMH pilots

### Data and methods

**Study design:** A mixed methods study combining qualitative and quantitative data and analyses

**Time frame:** The implementation evaluation began April 1, 2010 and ended March 31, 2011.

**Sample:** 26 primary care practices are participating in the Pilot, 4 pediatric and 22 primarily treating adults. Practices were selected to represent different geographic areas, organizational arrangements, and practice sizes.

**Data:** Existing data bases, PMCH Pilot application documents, survey results, and summaries of focus group sessions

**Analysis:** Descriptive statistics and 95% confidence intervals were used to analyze quantitative data; coding, theme identification, and consensus among the evaluators were used in analyzing the qualitative data.

## **Results**

**Profile of the Pilot practices:** As intended by the conveners, the practices selected for the Pilot represent the variety in primary care practices in Maine: about half the 26 practices are in an urban setting, a quarter are in small towns/rural areas, and a quarter are in large towns or suburbs; 85% are affiliated with a physician hospital organization (PHO) or provider network; 80% had an Electronic Medical Record (EMR); and 68% had a care manager working with patients at baseline. Most of the practices are of a medium size (e.g., 7 physicians and 80 patients per day). The top three payers are commercial insurance, MaineCare, and Medicare, but there is wide variation in payer mix among the practices.

### ***Objectives and strategies***

**Core expectations:** Each practice commits to achieving 10 core expectations during the Pilot, phasing in more expectations during the three years. In the first year, the expectations most frequently selected were team-based approach to care, practice-based integrated care management, and enhanced access to care (each selected by 11 practices). Strategies to address these expectations included:

- Teamwork: Schedule regular all-practice staff meetings, develop role-specific teams, and define staff members' roles
- Integrated care: Hire a care manager, train medical assistants to follow up with patients to improve compliance and assist providers with complex patients, and streamline access to internal and community resource
- Access: Increase morning hours and same-day appointments; try to have patients see their primary care provider at acute and follow up visits, and calculate time to third to next available appointment

**MaineCare members:** About a quarter of the practices anticipated challenges with serving MaineCare members. They planned to address these challenges through multiple strategies, including working collaboratively with assistance programs and MaineCare case managers, developing strategies to reduce the number of patients not skipping appointments, using MaineCare's educational "referral form," providing sliding scale options, increasing acute care access, and working with emergency departments to target frequent users and encourage use of the primary care setting.

## *Implementation during Year 1*

*Practices' progress in accomplishing their objectives:* By early in Year 1 all the Pilot practices had been attained the minimum or higher levels of medical home functionality. As a group, the practices had made progress in 9 of the 10 Pilot core expectations. Leadership and team work showed the highest level of achievement at the end of Year 1.

*Practice culture and workplace stress at midyear:* These measures capture adaptive reserve and other factors that can influence the degree to which practices can transform themselves into medical homes. In August 2010, the responses showed strength in teamwork, use of HIT, knowledge and use of community resources, adaptive reserve, and patient safety culture, all with scores at or above two-thirds of the maximum level possible. Scores for work showed strengths in personal achievement and low levels of depersonalization. Levels of emotional exhaustion were in the moderate range, suggesting feelings of being over extended and exhausted by work.

The practice culture survey, which measures adaptive reserve and related factors, showed on average that the practices have strengths in several domains, most notably teamwork. The stress survey showed strengths in personal achievement and (lack of) depersonalization. There were some differences among the practices in these measures. Six practices had significantly higher scores on two or three domains, suggesting that they can share useful information with the other practices on “how they did it.” Three practices have relatively low levels on two or three domains, indicating that they may benefit from consultation or coaching. At midyear, the work place stress survey indicated moderate levels of emotional exhaustion. Practices received their results from the practice culture and work place stress survey. The conveners reached out to the practices that had low scores on the culture/work place stress measures with provide extra resources and support to assist them in targeting interventions to address problems identified.

Physicians, nurse practitioners, and physician assistants tended to score higher than nursing/clinical and administrative staff on adaptive reserve and on teamwork, higher than nursing/clinical staff on patient safety culture; and higher than administrative staff on personal achievement.

*In-kind contributions from the practices toward Pilot objectives:* The practices contributed in-kind resources, apart from those received from the conveners, to support the Pilot. The most frequently mentioned in-kind resources are staff time, followed by technology, care management, behavioral health care services, and staff training to staff on integrating care management. Some of the practices' physician affiliated with PHOs received support in the form of increased staff time, new staff, or quality coaches to support the Pilot.

*Use of Pilot resources by the practices:* Respondents from 9 of 17 reporting practices said that their practices receive all or part of the funds directly for participating in the Pilot. Respondents from 3 practices said the payments go to the practice or the PHO, 3 said they go to the PHO, and 2 did not know where the funds go. They use the funds for hiring new staff and reimbursing existing staff, purchasing new technology, such as an EMR or chronic disease management software system, conferences, operating expenses, and staff training.

## ***Staff members' reflections on Year 1 implementation***

*Impact of the Pilot activities on their PCMH work:* Many focus group participants reported positive changes and benefits from participating in the Pilot, especially related to teamwork and communication. They also faced challenges related to limitations of time, staff, and financial resources and the need to continue to provide care while implementing the Pilot and other initiatives. The focus groups and the practice culture survey suggest that the Pilot affects staff members differently depending on their roles. There is some evidence that the burden of change falls more on clinical staff and administrators, as they take on new tasks and responsibilities, than on physicians.

Respondents felt that the support resources that had the greatest impact were the learning sessions and the data and feedback from the Pilot. About half said that the coaching and monthly conference calls had an impact.

## **Summary of the findings**

The 26 practices selected to participate in the Maine PCMH Pilot are similar to each other in that they are all “early adopters,” willing to embark on a new initiative to improve primary care and their work experience and capable of meeting the Pilot goals. As intended by the conveners, the Pilot practices represent the variety in primary care practices in Maine in terms of practice size, organizational affiliation, and location. This implementation evaluation revealed that they also differ in several factors that can influence a practice’s ability to transform itself into a medical home, as well as in their experience with the Pilot.

Respondents felt that the support resources they received from the conveners with the greatest impact on their Pilot work were the learning sessions and the data and feedback they received. About half said that the coaching and monthly conference calls had an impact.

## **Implication for the Pilot practices, coaches, and conveners**

Many of the recommendations below have already been implemented, based in part on interim results of the implementation evaluation:

- Continue to build on the practices’ strengths. Highlight the practices with strengths in practice culture and work place stress measures so that they can share with other practices “how they do it.”
- Continue to provide tailored support to practices with low scores on the practice culture or work place stress measures.
- Seek to understand more about how the Pilot affects people in different professional roles to capitalize on the positive impacts and benefits and try to minimize the negative impacts.
- Address issues of emotional exhaustion and “change fatigue” among practice staff.
- Continue the learning sessions and providing data and feedback.
- Review the coaching and conference calls to maximize their usefulness to the practices.
- Provide additional support to small practices and practices that are not affiliated with PHOs.

- Continue to try to assure that practices receive supplemental financial resources to support their Pilot activities.

### **Implications for future PCMH evaluations**

*Maximizing evaluation resources:* We had to collect information on all 26 of the Pilot practices with a limited budget and time frame. This precluded us from doing interviews with each practice. We met this challenge by using multiple sources of information and piggy-backing onto previously collected information. We also drew on the learning sessions, application forms, and practice self-assessment reports, which are convenient sources of information on the practices. This approach worked fairly well.

*The learning sessions:* We observed three of the sessions and conducted focus group discussions during one of them. The group discussions gave us rich insights into staff members' reactions to the Pilot and differences by roles. In retrospect, scheduling these discussions earlier in the evaluation and repeating them during subsequent Learning Sessions would have provided even richer information on the participants' perspectives and insights.

*Practice culture/work place stress survey:* These were well received by the practices and the practice staff. For several reasons, we were not able to administer this survey until August 2010, 8 months into Year 1. The quality coaches said that if they had had the results of these surveys earlier in the implementation they could have used the results to identify issues to work on and to motivate practice staff toward transformation.

*The resource survey:* The information that respondents in some of the practices do not believe they receive any financial support for participating in the Pilot and that many of the practices provide in-kind resources to support the Pilot is useful information regarding the implementation, which may be helpful in interpreting the results of the quality and efficiency evaluation. However, the low response rate to this survey suggests that future evaluations try to develop more effective means of eliciting this information.

*Progress in achieving core expectations:* The fact that the Pilot practices reported progress in achieving the objectives between the time of application (August 2009) and the formal start date of the Pilot (January 2010) is noteworthy. It suggests that the practices may have already been moving toward becoming medical homes *before*, and independent of, the Pilot, that the application process had stirred this achievement, or both. It confirms the wisdom of the quality and efficiency evaluation, which will use 2008 (instead of 2009) as the baseline year for measuring improvements in quality and efficiency. It also emphasizes the importance of using comparison groups of practices not in the Pilot to measure the impact of PCMH pilots, to help account for changes independent of the pilot.

## **I. Introduction**

### ***A. The Maine Patient Centered Medical Home (PCMH) Pilot***

The purpose of the Pilot is to improve quality of care, efficiency, and patient/family satisfaction provided by primary care practices through increasing the participating practices' functionality as medical homes. The Pilot intervention consists of enhanced payments per member per month to the practices from several payers and support from the Pilot conveners in the form of training, consultation, learning sessions, and quality improvement coaching. The premise of the Pilot is that the resources provided to practices through the Pilot (including enhanced payments, training, consultation, and learning collaborative) will help them transform themselves and reach a higher level of functionality as medical homes, which in turn will lead to improvements in quality of care, efficiency, and patient/family satisfaction.

The Pilot was convened by MaineCare, the Maine Quality Forum, and Quality Counts. The participating payers are MaineCare (Maine Medicaid), Aetna, Anthem, and Harvard Pilgrim Health Care. The Pilot was originally scheduled to last three years, from January, 2010 through December, 2012.<sup>i</sup>

Planning for the PCMH Pilot began in January, 2009. The PCMH Working Group Selection Committee, made up of providers, consumers, payers, and employers Practices, selected Pilot practices based on the following criteria<sup>1</sup>:

- Demonstrated commitment to the PCMH model principles
- Diversity of practice size, location, and ownership
- Ability to use existing improvement opportunities across the state
- Commitment to teaching

In addition, within 6 months of being accepted into the Pilot, a practice was required to be recognized by NCQA as reaching at least the PPC-PCMH Level 1.

Participating practices commit to achieving ten core expectations:

- Demonstrated leadership in the practice
- Team-based approach to care
- Population risk stratification and management
- Practice-based integrated care management
- Enhanced access to care
- Behavioral-physical health integration
- Inclusion of patients and families in implementing the PCMH model
- Connection to community
- Commitment to waste reduction
- Health information technology (HIT) integration

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<sup>i</sup> The Pilot will be extended to accommodate Medicare patients as part of the Medicare Advanced Primary Care Practice Demonstration, which is scheduled to begin July, 2011.

By January, 2010, 26 practices of the 51 that applied were selected to participate in the Pilot. The practices include four pediatric practices and 22 practices primarily treating adults.

### ***B. Overall evaluation of the Maine PCMH Pilot***

The Pilot is being evaluated by the Muskie School of Public Service, University of Southern Maine, with funding from several private foundations and from MaineCare (Maine Medicaid). The evaluation focuses on three aspects of the Pilot:

- The experience of patients of the participating practices before and after the Pilot was implemented
- How the participating practices implemented the Pilot (“transformed” themselves) to reach a higher level of patient centeredness
- Improvements in the quality and efficiency of care

This report focuses on findings from the implementation evaluation. The patient experience and quality and efficiency evaluations will be reported on in separate reports.

### ***C. Overview of the implementation evaluation***

The rationale for the implementation evaluation comes from the recent evaluation of the multi-site National Demonstration Project on Practice Transformation to a Patient Centered Medical Home.<sup>2</sup> That evaluation concluded that the process of transforming primary care practices into higher-functioning patient centered medical homes was long, exhausting, and complex. Staff members in some of the practices experienced workplace stress and “change fatigue” during the pilot. It also found that many factors influenced practices’ ability to transform themselves, including organizational resources, resilience (“adaptive reserve), workplace culture, and leadership. Practices with a strong level of adaptive reserve have “such capabilities as a strong relationship system within the practice, shared leadership, protected group reflection time, and attention to the local environment. In the beginning of the National Demonstration Project, practices varied considerably in their adaptive reserve, and that capability was a major determinant of a practice's initial progress.”<sup>2</sup>

The purpose of the implementation evaluation of the Maine PCMH Pilot is to understand and measure the experiences of the participating Pilot practices in order to develop the kinds of insights that guided the evaluation of the National Demonstration Project. The implementation evaluation will support the Pilot in several ways. An understanding of the factors that influenced the practices’ ability to transform themselves to reach higher levels of functioning as PCMHs, as well as how they met the challenges faced during the first year of the Pilot, can assist the practices and the conveners during the second and third years. The results of the implementation evaluation can provide insights to inform the quality and efficiency evaluation and can provide guidance to other PCMH pilots.

The objectives of the implementation evaluation are to

- Profile the characteristics of the Pilot practices at baseline
- Describe the practices’ objectives and strategies for implementing the Pilot
- Describe implementation during Year 1
- Provide practical guidance to the practices, the Pilot conveners, and MaineCare
- Develop profiles of the Pilot practices for use in the quality and efficiency evaluation
- Develop recommendations for use by evaluators of other PCMH pilots

## II. Data and methods

**A. Study design:** This was a mixed methods study combining qualitative and quantitative data and analyses.

**B. Time frame:** The implementation evaluation began April 1, 2010 and ended March 31, 2011.

**C. Sample:** The sample is the 26 Pilot practices. Four are pediatric and 22 primarily treat adults. For the practice culture and workplace stress/burnout surveys, the sample is staff members from the Pilot practices.

**D. Data:** We used existing data bases, information supplied by the practices to the conveners as part of the application process, information supplied by the practices to the Muskie evaluators, and information collected by the evaluators during Pilot Learning Sessions (Table 1 and Figure 1). The data collection procedures were approved by the University of Southern Maine Institutional Review Board.

**Table 1. Sources of data, Maine PCMH evaluation**

<b>Data source</b>	<b>Number of practices</b>
1. Pilot application form	26
2. Medical Home Implementation Quotient (MHIQ) survey	23
3. National Committee on Quality Assurance (NCQA) recognition level	26
4. Self-assessment survey	26
5. Monthly reports	26
6. Special core expectations survey	18
7. Survey on strategies and challenges in serving special populations	21
8. Practice culture and workplace stress survey	26
9. Resource and impact survey	17
10. Learning session feedback groups	26

**1. Pilot application form:** This information was submitted to the conveners by all practices applying to participate in the Pilot. It includes information on basic practice characteristics such as number of the physicians and other clinicians, the number of active patients, type of

ownership, specialty (family medicine, internal medicine, pediatrics, other), type of practice (solo practice, primary care group, multi-specialty, residency practice, federally qualified health center, rural health center, other), and practice location (urban, suburban, large town, small town/rural).

**Figure 1. Timeline for data collection for the implementation evaluation**

Source of data*	Time period							
	2009				2010			
	Jan-Mar: <i>Planning began</i>	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar: <i>Implementation began</i>	Apr-Jun: <i>Implementation evaluation began</i>	Jul-Sep	Oct-Dec
1. Application form	X							
2. MHIQ survey	X							
3. NCQA level	X	X	X	X				
4. Self-assessment survey			X					
5. Monthly reports					X	X	X	X
6. Core expectations survey						X		
7. Population survey						X		
8. Practice culture survey							X	
9. Resource survey								X
10. Feedback groups								X

\* From Table 1

2. *MHIQ survey*: Scores from the MHIQ survey were used to assess how patient centered a practice was when it applied to participate in the Pilot. The survey consists of nine modules (Patient Centered Medical Home, Practice Management, Health Information Technology, Quality & Safety, Practice-Based Team Care, Continuity of Care Services, Practice Services, Access to Care and Information, Care Management). It provides an overall score based on the nine modules to indicate the expected NCQA recognition level.

3. *NCQA survey*: The NCQA recognition for the Physician Practice Connection – Patient Centered Medical Home (PPC-PCMH) survey Level 1 indicates the lowest level of PCMH functionality and 3 the highest level.

4. *Self-assessment survey*: This is a self-assessment by the Pilot practices of their progress in attaining the 10 PCMH core expectations during the planning phase and prior to application to participate in the Pilot.

5. *Monthly reports:* These reports, which are submitted by the Pilot practices to the conveners, summarize their progress on the core expectation included in their work plans for Year 1.

6. *Special core expectations survey:* The practices provided more detailed information on their strategies for two core expectations in preparation for the June 2010 learning session, which focused on waste reduction and increasing access. In preparation for the session, the conveners asked the practices to respond to a survey about hospital readmissions, open access care, and emergency department use.

7. *Survey on strategies and challenges in serving special populations:* The evaluators surveyed the practices about the top three core expectations they were focusing on, the strategies used to address them, their progress to date, and any challenges they expected to face in implementing the Pilot with low-income, disabled, and MaineCare patients.

8. *Practice culture and workplace stress survey:* The evaluators surveyed staff of the Pilot practices to measure practice culture and workplace stress. All staff members in each practice were invited to participate on a voluntary and confidential basis.

The culture survey includes questions about a practice's adaptive reserve, teamwork, patient safety culture, community knowledge, health information and technology. Questions in the teamwork domain came from the AHRQ Medical Office Survey on Patient Safety.<sup>3</sup> (There is some overlap between this questionnaire and the questions on teamwork in the adaptive reserve questionnaire.) The remaining domains on practice culture came from the National Demonstration Project Clinician/Staff Questionnaire.<sup>4</sup>

The workplace stress survey includes measures of three domains related to staff burn out: emotional exhaustion, depersonalization, and personal achievement.<sup>5</sup> Each respondent's score in these domains is classified as high, moderate, or low for each dimension. Respondents were also offered a chance to provide open-ended responses to the question "Is there something else you would like to tell us about your practice?"

9. *Resource and impact survey:* The evaluators surveyed key managerial and clinical leaders in the Pilot practices about how they used resources to support their Pilot activities, including resources provided by the conveners and by their practices as in-kind contributions. They also were asked to comment on the impact of the Pilot on their practices.

10. *Learning session feedback groups:* The evaluators conducted informal feedback sessions during a Learning Session to gain insights into lessons learned by the practices in implementing the Pilot, challenges they face, and approaches to overcoming the challenges. Each participant in the learning session was asked to join one of four groups reflecting his or her most prominent role in the PCMH Pilot: physician, clinical staff, administrator, or quality coach. Each group was facilitated by a member of the research team. The groups were asked to respond to questions about their experience with the Pilot and to suggest advice for others in a similar role in a PCMH demonstration. The questions covered positive changes/benefits and negative changes/challenges faced in implementing the PCMH, changes in job responsibilities, unexpected benefits and challenges, and what helped with implementing the project.

***E. Analysis:*** Descriptive statistics (counts, percentages, and averages) were used to summarize the results. Confidence intervals were used to test for differences in means and proportions between groups. The 95% level of confidence was used as the standard for statistically significant differences.

In summarizing the results of practice culture and workplace stress survey by staff role, responses were grouped or clustered by practice and by staff role. (Practices received feedback on their overall results, for all respondents. They did not receive their own results by staff role, to preserve respondents' confidentiality.) Other analyses were at the practice level. The methods used to score each of the domains in this survey are described in the Results section.

For qualitative data, such as comments in response to open-ended questions, the evaluators summarized the comments, aggregated them into general categories, and separated positive from negative comments. They analyzed notes from the learning session focus groups, summarized the results, and coded them for themes.

### III. Results

**A. Profile the Pilot practices:** Part of the conveners' goal in selecting the participating practices was to assure a wide variety of types of practices. Over half (58%) of the practices are large based on the number of physicians, 31% are medium, and 12% are small (Table 2). Just under half of practices are located in an urban setting (46%), with the remaining in suburban, large towns, or small rural towns.<sup>6</sup> Most practices (85%) belong to a physician hospital organization or provider network; 80% had an EMR and 68% had a care manager working with patients when they applied to participate in the Pilot.

**Table 2. Practice Characteristics (n=26 practices)**

Characteristics	Number (percent) of practices		
<b>Practice size</b>			
Small (1-2 providers)	3 (12%)		
Medium (3-5)	8 (31%)		
Large (6 and more)	15 (58%)		
<b>Location</b>			
Urban	12 (46%)		
Suburban	2 (8%)		
Large town	5 (19%)		
Small town/rural	7 (27%)		
<b>Member of PHO (% yes)</b>	22 (85%)		
	<b>Average</b>	<b>Median</b>	<b>Range</b>
<b>Payer mix<sup>ii</sup></b>			
Commercial, fee for service	33%	34%	0%-74%
Commercial, capitation	6%	0%	0%-33%
MaineCare (Medicaid)	26%	30%	3%-60%
Medicare	22%	24%	0%-51%
Uninsured, self pay	6%	5%	0%-14%
Uninsured, Care Partners	1%	0%	0%-10%
Other	2%	0%	0%-28%

PHO = Physician Hospital Organization

Source: Application materials supplied by the practices to the PCMH conveners and MHIQ survey

Table 3 provides additional information on the diversity of the practices in terms of the number of physicians, nurse practitioners, and physician assistants, the number of active patients, the average number of patient visits per day, age mix, and payer mix. Most of the practices are of a medium size with around 7 physicians seeing about 80 patients per day. The top three payers are commercial insurance, MaineCare, and Medicare, but there is wide variation in the payer mix among the practices.

**Table 3. Description of the Pilot practices at the time of application (n=25 practices)<sup>iii</sup>**

<sup>ii</sup> Four practices did not provide complete information, so the total of the average percentages does not equal 100%.

Characteristic	Average	Median	Range
Number of physicians, nurse practitioners, and physician assistants <sup>iv</sup>	8	7	2-30
Number of patients actively provided care	6,674	6,000	2,000-27,980
Number of patients treated per day	98	80	30-415
Number of patients per provider per day	13	13	4-21
Patient age in years (n=24 practices)			
0-18	24%	15%	0%-97%
19-44	27%	25%	3%-52%
45-64	29%	31%	0%-57%
65 and older	18%	17%	0%-41%

Source: Application materials supplied by the practices to the PCMH conveners

**B. Objectives and strategies for implementing the Pilot:** In August 2009, during the planning phase and before applications to participate in the Pilot, the practices reported on their status in addressing the 10 core expectations. Each practice reported its progress as ranging from “no familiarity with the expectation” to “well established and able to teach others about the task.” These responses were translated into a four-part scale to facilitate comparison with later self-assessments. The scale responses ranged from 1 = no progress through 4 = regular part of care.

Some of the core expectations include sub-topics. For example, leadership includes three sub-topics: progress in identifying a leader, how much the leader is involved with staff and providers to develop teamwork, and the amount of involvement in the Collaborative. For these expectations, the average score of the three sub-topic scores was used as the overall score for the domain.

Table 4 lists the core expectations the practice focused on in Year 1, the number of practices focusing on each expectation, the self-assessed level of achievement, and the strategies related to each expectation. (The original 6 response categories in the survey ranged from “no familiarity with the expectation” to “well established and able to teach others about the task.” The evaluators created a scale to produce the scores shown in Table 3, to allow for comparison with the January 2010 results.) The highest levels of accomplishment were in HIT (2.8), leadership (2.8), teamwork (2.7), and access to care (2.7). Inclusion of patients and families (1.7) and connection to the community (2.0) were among the expectations with the lowest level of achievement at application.

**Table 4. Core expectations focused on during Year 1 and strategies to address them**

Core expectation	Number of	Status at application	Strategies(n=21 practices)
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<sup>iii</sup> Number of practices providing information is in parentheses. Pilot application data were available for 25 practices.

<sup>iv</sup> Includes full and part-time staff with these titles. This does not include “other clinical staff.”

	<b>practices</b>	<b>(n=26 practices)</b>	
Team-based approach to care	11	2.7	Schedule regular staff meetings, develop role-specific teams, define staff members' roles
Practice-based integrated care management	11	2.4	Hire a care manager, train medical assistants to follow up with patients to improve compliance and assist providers with complex patients, streamline access to internal and community resources
Enhanced access to care	11	2.7	Increase morning hours and same-day appointments; try to have patients see their primary care provider at acute and follow up visits, calculate time to third to next available appointment
Behavioral-physical health integration	8	2.3	Hire or contract with behavioral health staff, use "warm handoffs" of patient from primary care provider to behavioral care provider
Population risk stratification and management	5	2.3	Use patient registry software; track referrals and labs to improve patient compliance; use motivational training, tailored care plans, and group visits for patients with particular conditions
Inclusion of patients and families	5	1.7	Select patients to be advisors, work with existing patient advisory group
HIT integration	5	2.8	Contract with an EMR vendor, enter charts into the EMR, institute secure messaging for electronic communication between patient and provider
Demonstrated leadership in the practice	4	2.8	Schedule regular meetings and communication with providers and staff about PCMH, technology/electronic medical record, and updates to office systems
Commitment to waste reduction	2	2.3	Develop protocols for referrals, encourage specialists to have patients return to their primary care provider for follow up, institute Hospital-to-Home group visits for all discharged patients
Connection to community	1	2.0	Develop group disease management visits and lists of community resources

Sources: Self-assessment survey and Core expectations survey

**C. Challenges expected in working with MaineCare members:** The evaluators asked the practices about any challenges they anticipated in serving low-income and disabled patients. About a quarter (24%) of the practices anticipated challenges with serving MaineCare members

and 14% anticipated challenges with other low-income patients. The practices did not anticipate challenges serving people with disabilities.

Strategies to address these challenges include working collaboratively with assistance programs and MaineCare case managers, trying to reduce the number of patients not showing up for appointments, using MaineCare's educational "referral form," providing sliding scale options, increasing acute care access, and working with emergency departments to target frequent users and encourage use of the primary care setting.

#### ***D. Implementation during Year 1***

##### *1. Practices' progress in accomplishing their objectives*

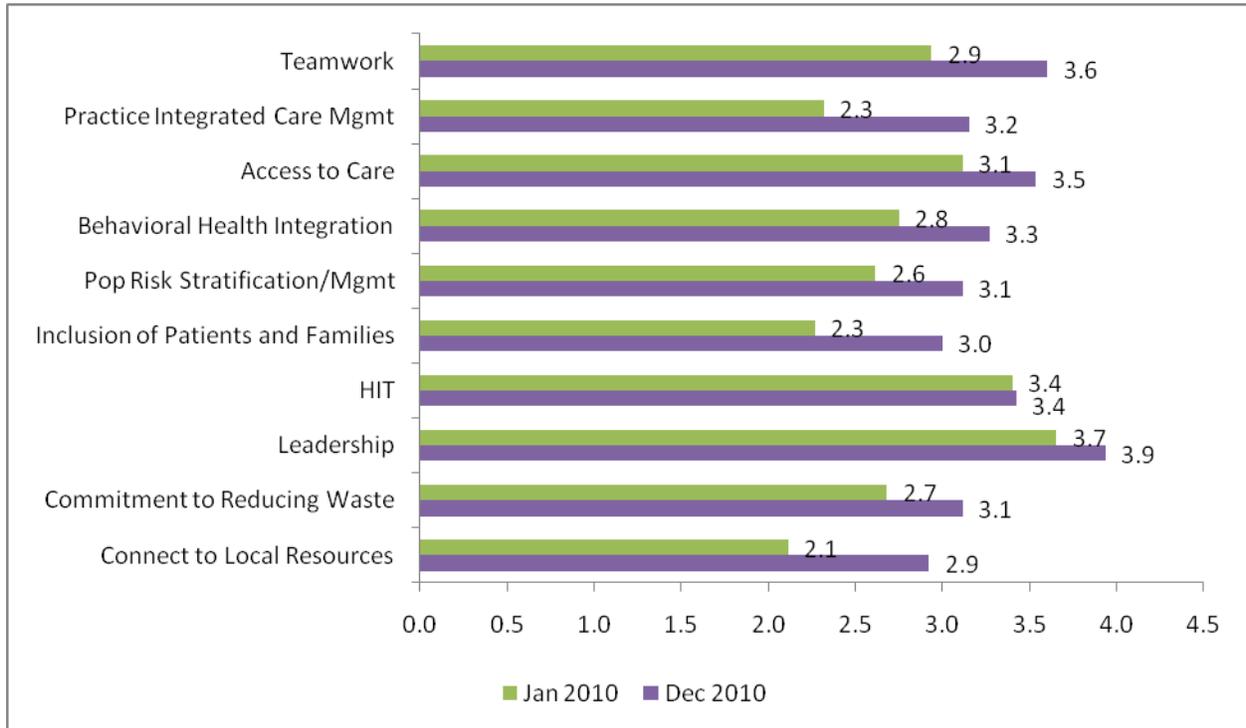
PCMH functionality: Based on the NCQA and the MHIQ surveys, within four months of applying for the Pilot, 50% of the Pilot practices were NCQA Level 1 (the minimum level of functionality required for the Pilot), 19% were Level 2, and 31% were Level 3.

Core expectations: Figure 2 shows the average degree of progress in implementing the core expectations from the beginning to the end of the first year of implementation (January through December 2010). The core expectations are listed in order by the number of practices focusing on them, from most frequently listed (teamwork) to least frequently listed (connection to local resources).

By the end of Year 1, the highest levels of accomplishment were in leadership (3.9) and teamwork (3.6). During Year 1 the practices made progress in 9 of the 10 core expectations. The greatest percentage increases were in practice integration (+39.1%) and connect to local resources (+38.1%). There was no change in the average score for HIT integration.

It is noteworthy that from the time of application in August 2009 (from Table 4) to the beginning of the implementation period in January 2010 (from Figure 2), the practices on average made progress in meeting all the core expectations except practice integrated care management. The greatest percentage increases during this pre-Pilot time were in inclusion of patients and families (+35.3%) and leadership (+32.1%).

**Figure 2. Progress on the 10 core expectations over time, baseline levels compared to the end of Year 1 (n=26 practices)**



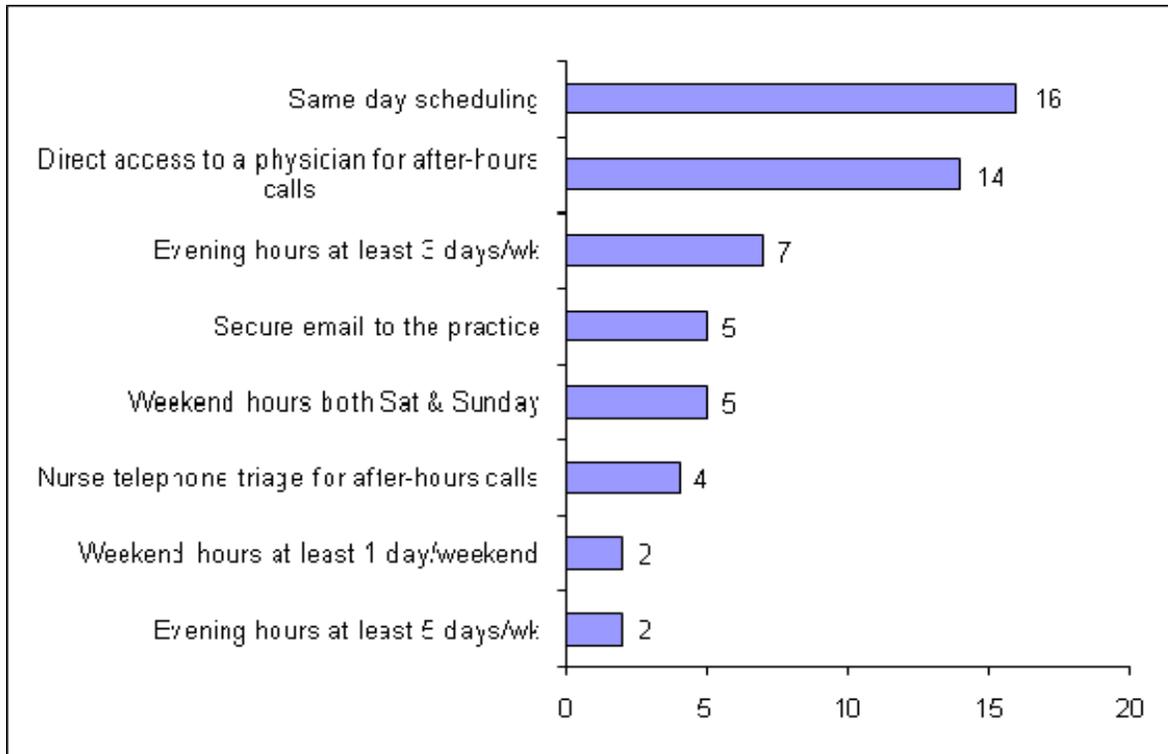
Explanation of scores: 1= No progress, 2= Early Progress, 3 = Moderate Progress, 4 = Regular Part of Care

Source: Monthly reports

*Detailed information on progress in enhancing access to care and waste reduction:* As noted above, a special survey related to these expectations was conducted prior to one of the learning sessions, which focused on these two expectations.

Access: Figure 3 shows the strategies practices are using to accomplish this core expectation. Same day scheduling and direct access to a physician for after-hours calls are the most commonly used strategies.

**Figure 3. Strategies for enhancing access to care (n=18 practices)**



Source: Special core expectations survey

Waste reduction: These questions focused on reducing waste through better care coordination of patients with emergency department visits or hospital admissions. Half the 18 reporting practices have a formal process to track patients in their practice who are admitted and/or readmitted to the hospital; 71% reported that hospital staff notifies the practice when one a patient is admitted, before or at discharge. Half of practices contact their hospitalized patients after they have been discharged to home, usually within a week of discharge, and 73% encourage patients who have been hospitalized to come in for an office visit within 7 days after discharge.

Half of practices reported that hospital staff notifies their office when one of their patients is seen in the Emergency Department (ED). Strategies to reduce inappropriate ED use include educating patients about inappropriate ED use and encouraging the use of the after-hours call line to help determine if an ED visit is necessary. About one third (38%) of practices contact a patient who has been to the ED within 24 to 48 hours after the ED visit and about one quarter (22%) track the rate of ED visits for their patients.

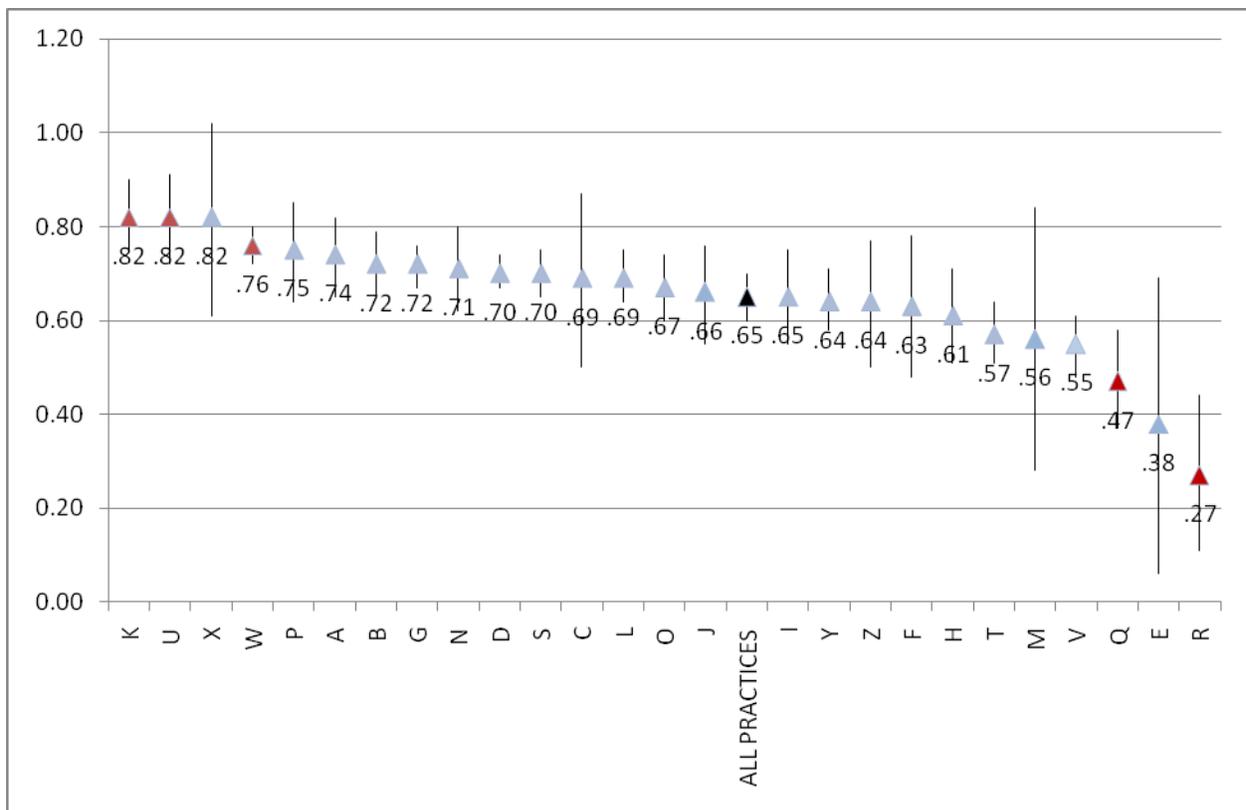
**2. Practice culture and staff stress at midyear:** All the Pilot practices participated in the survey, which was conducted in August 2010, about 8 months into Year 1. Over half of the staff in Pilot practices (408/680 or 60%) responded. Respondents were primarily administrative staff (38%), nursing/clinical staff (37%), doctors/nurse practitioners/physician assistants (20%), and other staff (6%).

In Figures 4 through 8, the black (darkest) triangle shows the average score for all 26 practices. The red (or medium gray) triangles show scores that are statistically significantly different from the average at the 95% confidence level. The light gray triangles show scores that are not significantly different than the group average. Lack of statistical significance may be because small numbers of respondents replied, because scores differed widely among the respondents, or both. The vertical lines indicate the 95% confidence interval. To protect confidentiality, each practice is identified by a letter, not by name. Practices received the charts with the results, with information on the letter assigned to their practice.

*Adaptive reserve (23 questions):* Figure 4 shows scores summarizing the respondents' answers to the questions about adaptive reserve, with the mean score and the 95% confidence intervals. These include questions about communication, leadership, learning culture, teamwork, and the work environment. The possible scores range from 0 to 1; higher scores indicate that respondents reflected a higher level of adaptive reserve. (Note that there is some overlap of the adaptive reserve questions on teamwork and the questions in the separate domain for teamwork.)

The overall group average score was .65, about two-thirds the maximum score possible. Three practices had scores that were significantly higher than the average and two had scores that were significantly lower. The scores for the rest of the practices were not significantly different from the average.

**Figure 4. Adaptive reserve scores by practice, Maine PCMH evaluation (n=26 practices)**

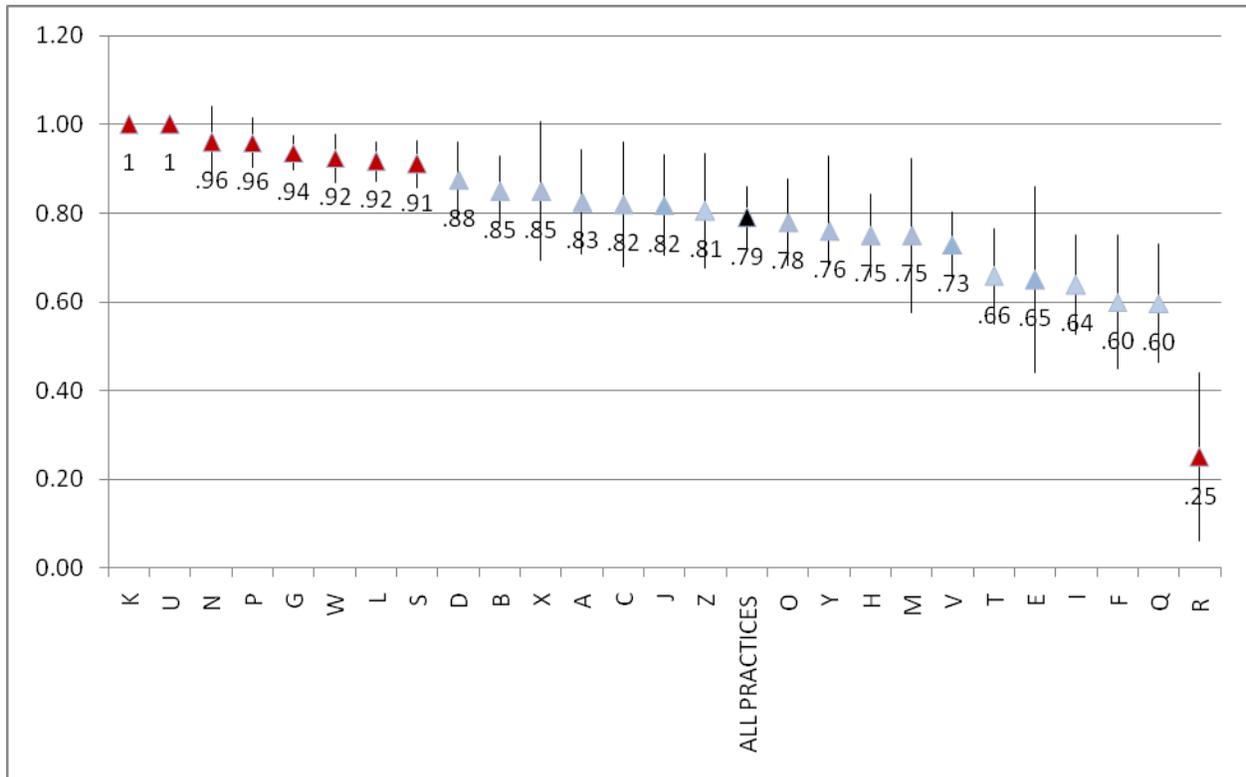


Source: Practice culture and workplace stress survey

*Teamwork (4 questions):* This section includes questions such as whether staff members help each other out when needed and treat each other with respect. The questions were drawn from the AHRQ Medical Office Survey on Patient Safety Culture teamwork domain.<sup>3</sup> This domain is scored differently from the others. A score of 100% means that everyone who responded agreed or agreed strongly that there is a high level of teamwork within the practice; a score of 50% means that half the respondents agree or agree strongly with that statement (Figure 5).

The average across all the practices was relatively high, at .79. The range of scores was very wide, from .25 to 1.00, the maximum possible score. Eight practices had scores that were significantly higher than the overall average and one was lower. The relatively large confidence interval for the lowest scoring practice, “R,” suggests that there may have been a small number of responses for that practice.

**Figure 5. Teamwork scores by practice, Maine PCMH evaluation (n=26 practices)**

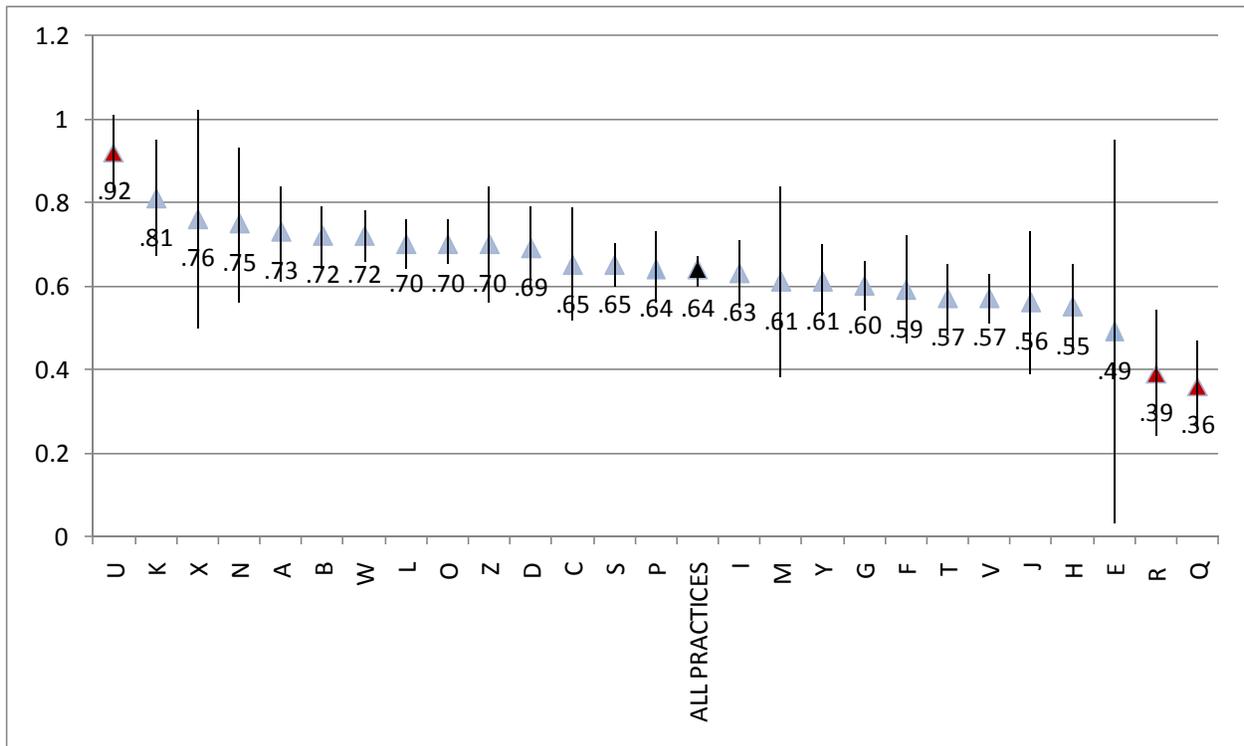


Source: Practice culture and workplace stress survey

*Patient Safety Culture (5 questions):* This section includes questions about how mistakes are handled (for example, if staff members feel mistakes are held against them) and staff members' level of comfort in asking questions when something does not seem right. The possible scores range from 0 to 1; higher scores indicate a higher level of patient safety culture.

The average score was .64 (Figure 6). The range of scores on this measure was relatively wide, from .36 to .92. One practice scored significantly higher than the group average and two scored significantly lower. The rest were not significantly different from the group average.

**Figure 6. Patient safety culture scores by practice, Maine PCMH evaluation (n=26 practices)**

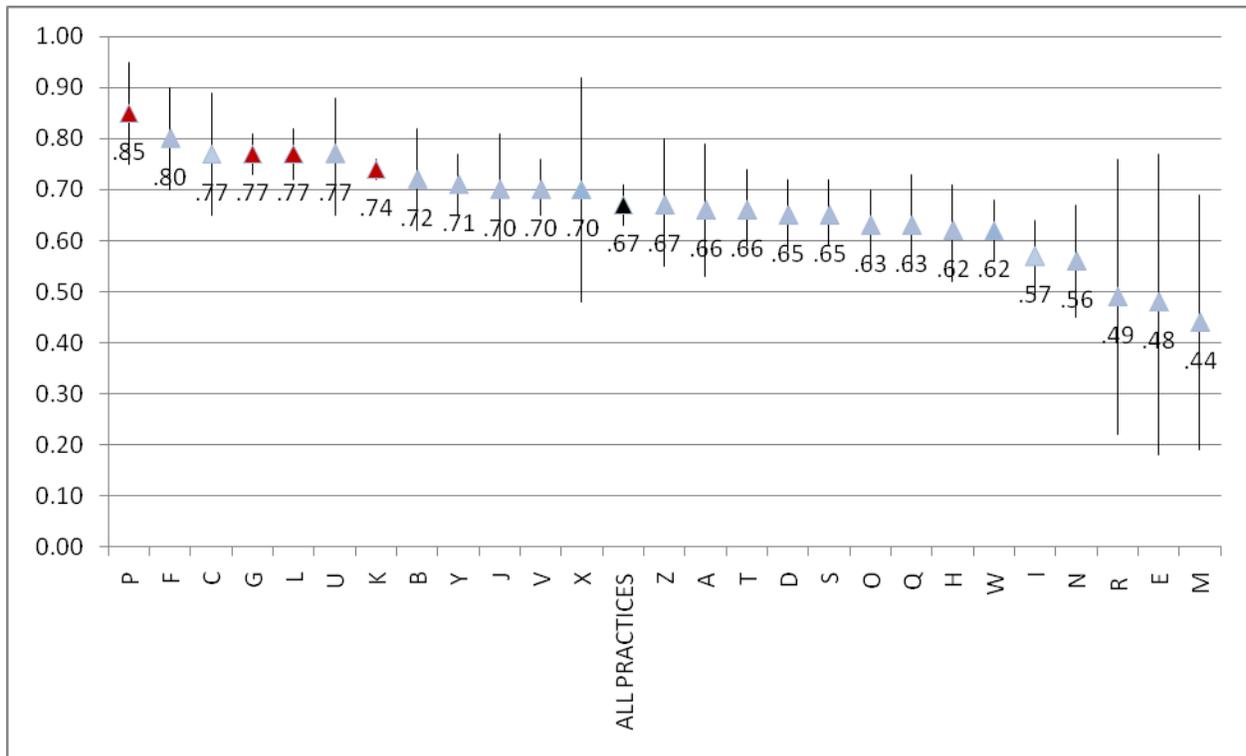


Source: Practice culture and workplace stress survey

*Community Knowledge (4 questions):* The scores in Figure 7 summarize responses about staff members' knowledge and use of community resources and organizations. The possible scores range from 0 to 1; higher scores indicate a higher level of knowledge about community resources.

The overall average score was .67, about two-thirds the maximum score possible. Four of the practices had results that were significantly higher than the average and none was lower.

**Figure 7. Community knowledge scores by practice, Maine PCMH evaluation (n=26 practices)**

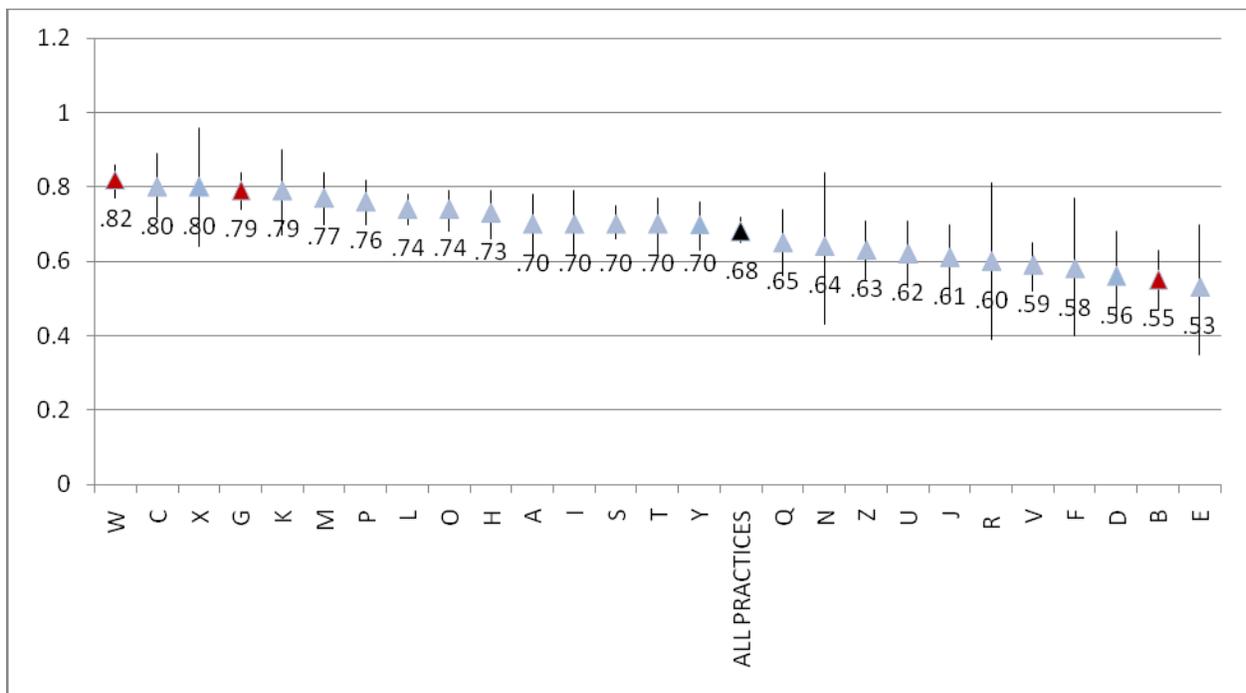


Source: Practice culture and workplace stress survey

*Health Information Technology (HIT)(4 questions):* The scores in Figure 8 summarize responses to questions about integration of the electronic medical record (EMR) within the practice and use of the EMR during patient interactions. The possible scores range from 0 to 1; higher scores indicate there is more integration of HIT in a practice.

The average score was .68. Two of the practices had results that were significantly higher than the group average and one was significantly lower.

**Figure 8. Health Information Technology scores by practice, Maine PCMH evaluation (n=26 practices)**



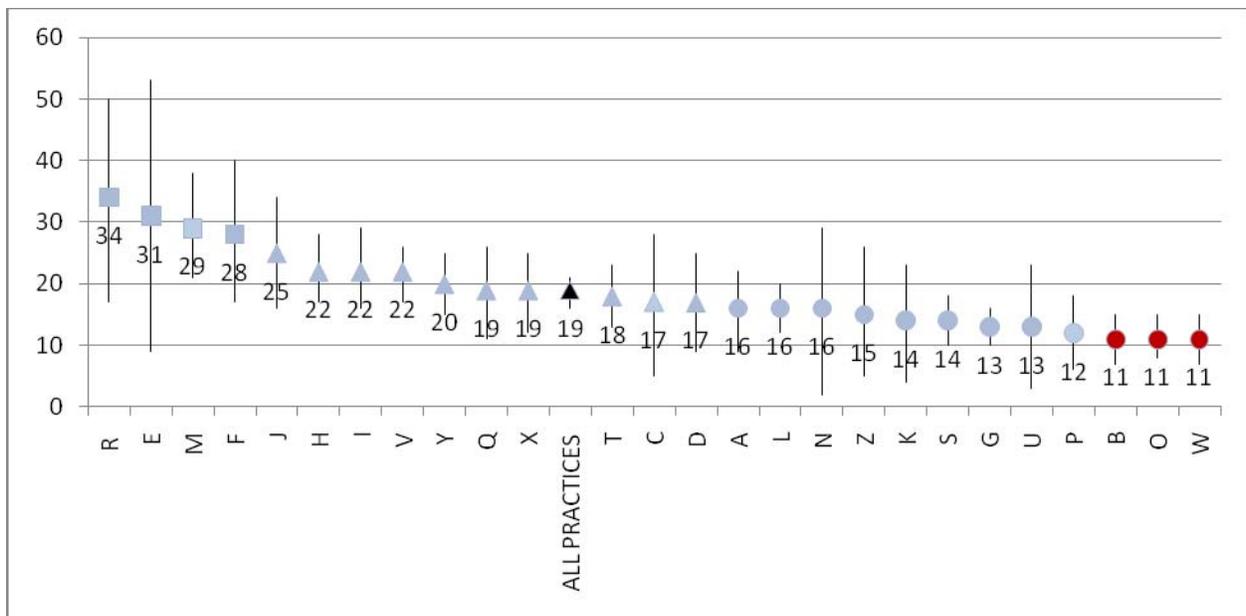
Source: Practice culture and workplace stress survey

**Workplace stress (Staff burnout):** This section includes measures of emotional exhaustion, depersonalization, and personal achievement. Each respondent’s score is classified as high, moderate, or low for each dimension, based on levels specified by the instrument developers. High scores are shown with a square, moderate scores are shown with a triangle, and low scores are shown with a circle.

**Emotional Exhaustion (9 questions):** This section includes questions about feelings of being over extended and exhausted by work. A high score indicates that the staff members in a practice reported a higher average level of emotional exhaustion.

The range in scores was from 11 to 34. The average score was 19 out of a possible maximum score of 54 (Figure 9). This is considered to be within the moderate level of emotional exhaustion. Three practices had a significantly lower level of emotional exhaustion than the group average. The scores of the other practices did not differ significantly from the group average.

**Figure 9. Emotional exhaustion scores by practice, Maine PCMH evaluation (n=26 practices)**

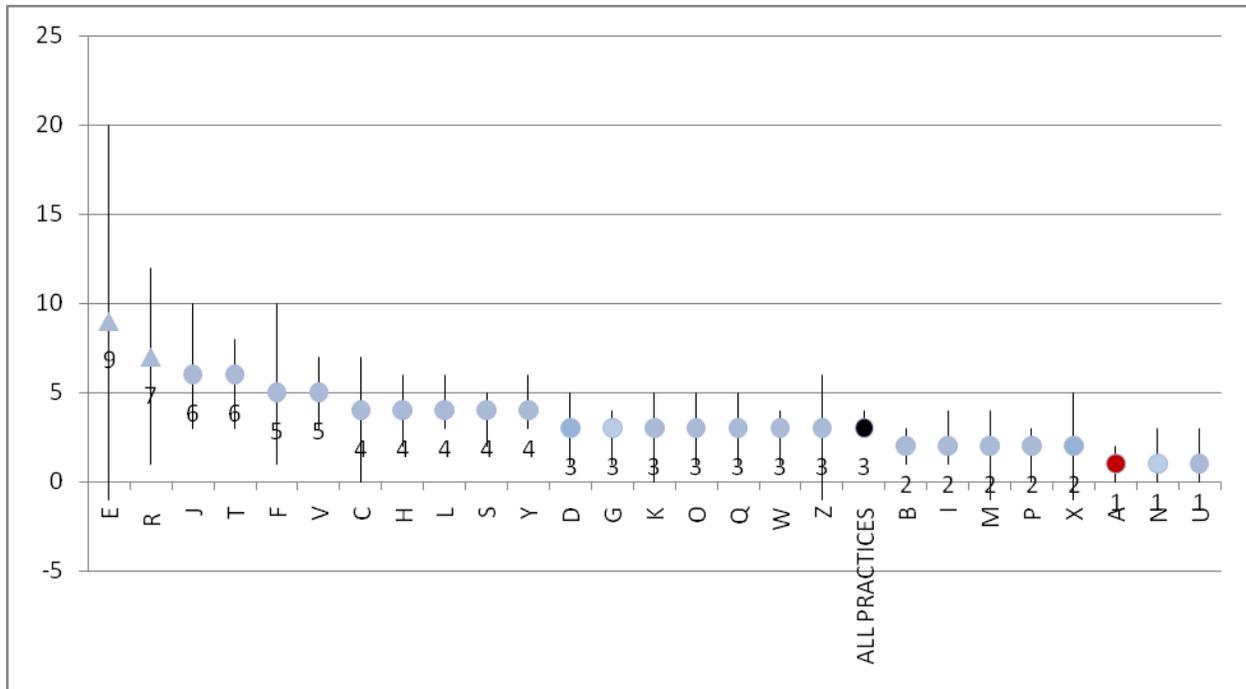


Key: High (squares) = scores of 27-54; moderate (triangles) = 17-26; low (circles) = 0-16.  
 Source: Practice culture and workplace stress survey

*Depersonalization (5 questions):* This section includes questions about being detached from interactions with patients, co-workers or family members. A high score indicates that the staff members in a practice reported a higher average level of depersonalization.

The range was from 1 to 9. The average score was 3 out of a possible maximum score of 30 (Figure 10). An average score of 3 is considered within the low level of depersonalization. One practice had a significantly lower level of depersonalization than the group average.

**Figure 10. Depersonalization scores by practice, Maine PCMH evaluation (n=26 practices)**



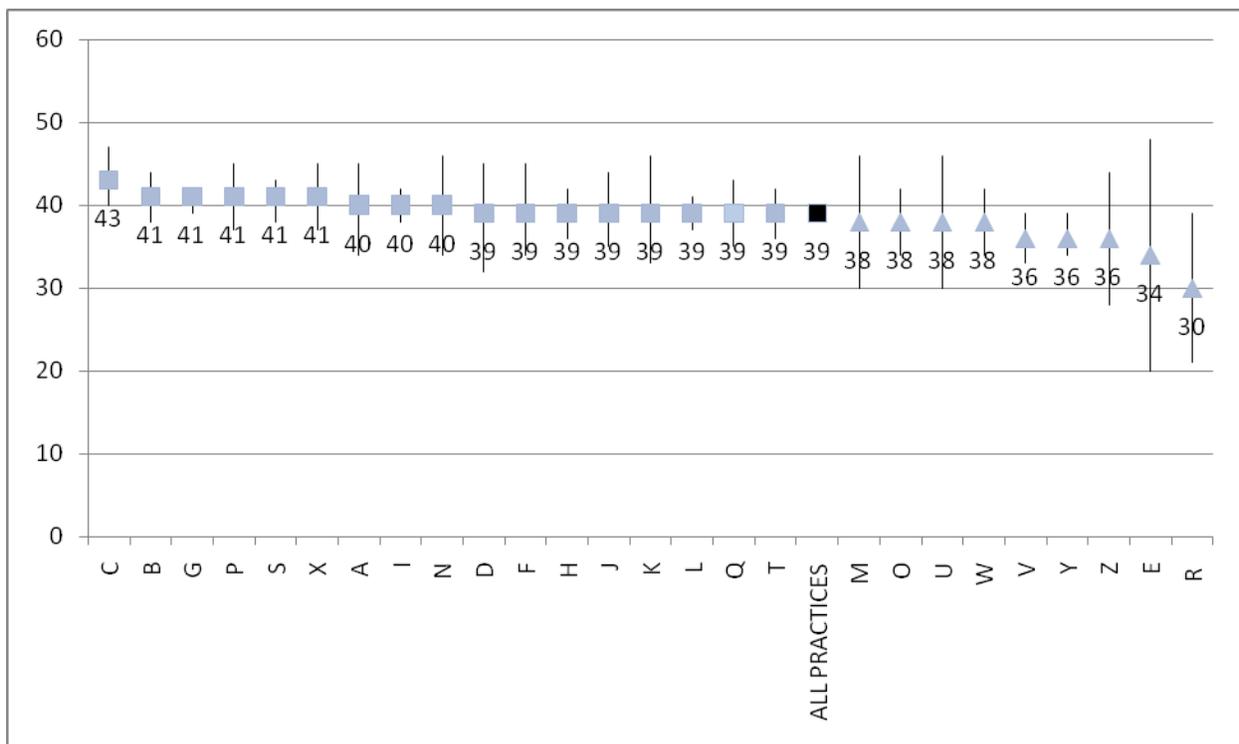
Key: High (squares) = scores of 13-30; moderate (triangles) = 7-12; low (circles) = 0-6.

Source: Practice culture and workplace stress survey

*Personal achievement (8 questions):* This section includes questions about feelings of competence and successful achievement in working with people at work. A high score indicates that the staff members in a practice reported a higher average level of personal achievement.

The range was from 30 to 43. The average score was 39 out of a possible maximum score of 48 (Figure 11), which is considered to be within the high level of personal achievement. None of the practices had scores that were different from the group average.

**Figure 11. Personal achievement scores by practice, Maine PCMH evaluation (n=26 practices)**



Key: High (squares) = scores of 39-48; moderate (triangles) = 32-38; low (circles) = 0-31.

Source: Practice culture and workplace stress survey

Differences among staff by role: As noted above, in this analysis responses were grouped or clustered by practice and by staff role. Four categories of staff role were used: medical doctor/nurse practitioner/physician assistant; nursing and clinical staff; administrative staff; and other staff. (Note that practices received feedback on their overall results, for all respondents, and the results for all respondents by staff role. They did not receive their own results by staff role, to preserve respondents' confidentiality.) We compared the scores for the staff role categories for each of the practice culture and workplace stress domains.

MDs/NPs/PAs showed significantly higher scores on average than nursing/clinical and administrative staff on adaptive reserve and on teamwork. MDs/NPs/PAs showed significantly higher scores than nursing/clinical staff on patient safety culture. MDs/NPs/PAs showed

significantly higher scores than administrative staff on personal achievement. There were no significant differences by staff role on the remaining measures.

Practices with significantly different results than the overall average: On all the domains except personal achievement, a few practices had scores that were significantly different from the average for all practices (Table 5). Four practices had above average scores in three domains, two had above average scores in two domains, and two had above average scores in one domain. The higher scores tended to concentrate in adaptive reserve and teamwork.

One practice had a lower average score in three domains, two practices had lower average scores in two domains, and three had lower average scores in one domain.

One practice showed both significantly higher and lower scores than the average on different domains.

Each practice got a copy of the figures above and a key indicating which letter referred to its results. Practices did not get keys to identify the results of other practices.

**Table 5. Practices with significantly different results than the overall average for each of the practice culture and workplace stress domains**

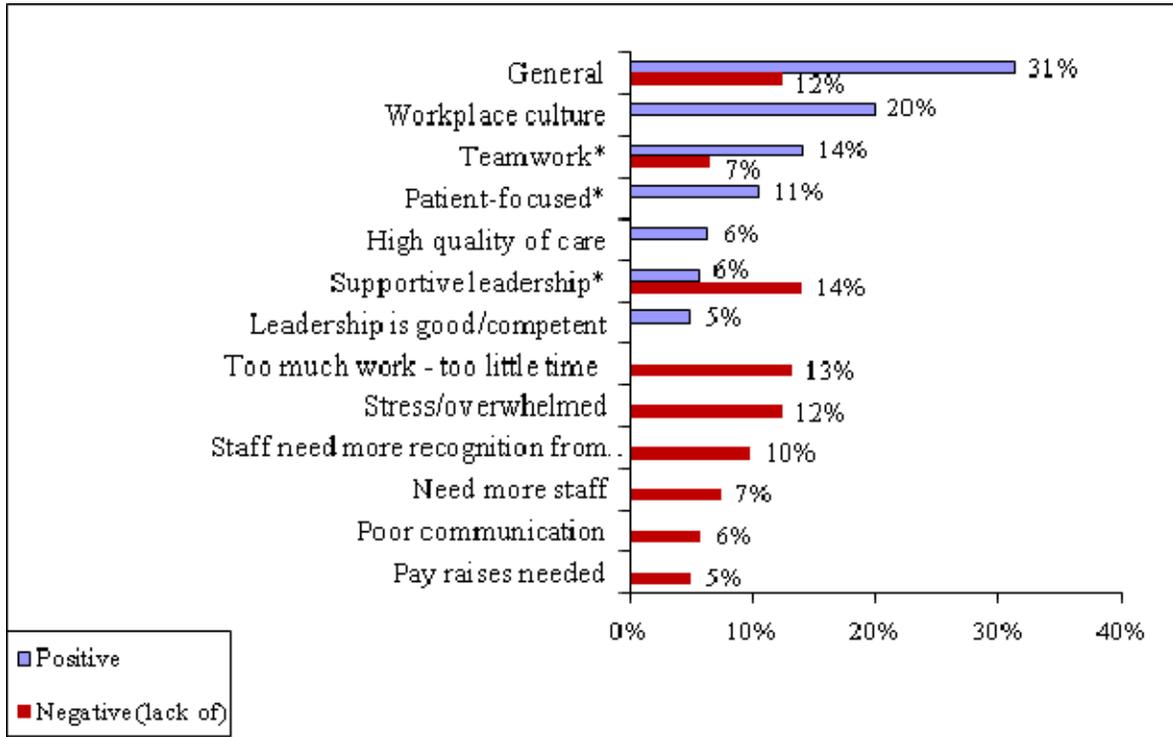
Domain	Significantly higher score	Significantly lower score
Adaptive reserve	K, U, W	Q, R
Community knowledge	G, K, L, P	
Patient safety	U	Q, R
Teamwork	G, K, L, N, P, S, U, W	R
HIT	G, W	B
Emotional exhaustion		B, O, W
Depersonalization		A
Personal achievement		

Source: Practice culture and workplace stress survey

**Responses to open-ended questions:** As noted above, the respondents were asked “Is there something else you would like to tell us about your practice?” The Muskie evaluation team summarized the respondents’ comments and grouped them by theme and by whether they are positive or negative.

Figure 12 shows the comments by all staff responses, regardless of the practice to which they belonged. For example, 31% of the respondents made a comment that was generally positive. This included the frequently made comment “This is a great place to work.” Positive comments related to three of the core expectations: teamwork, patient-focus, and leadership. Negative comments related to teamwork and leadership.

**Figure 12. Comments provided in the practice culture survey at the person level (n=141 respondents)**

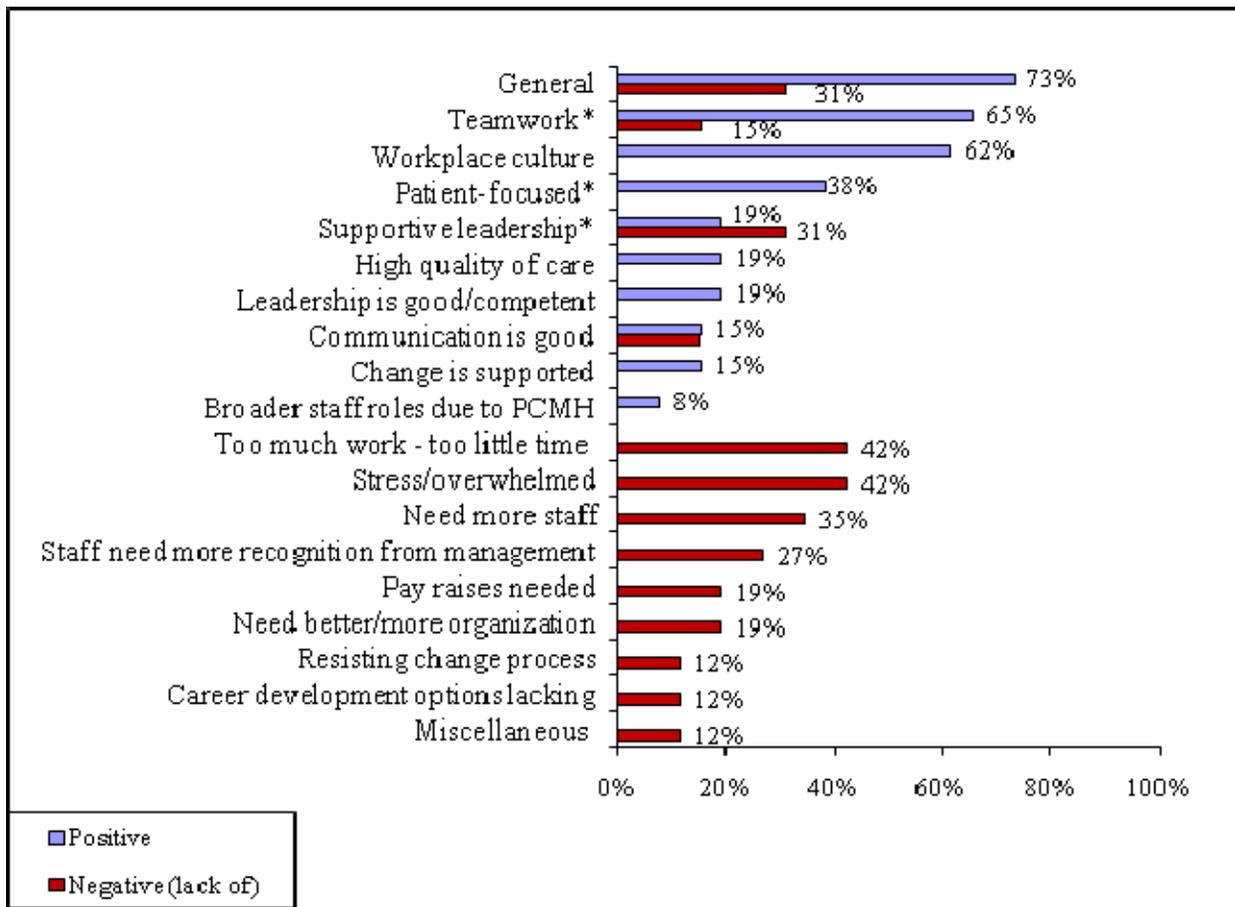


\*Core expectation of the Pilot

Source: Practice culture and workplace stress survey

Figure 13 shows the comments grouped by practice. For example, 73% of the practices had one or more respondents make a generally positive comment, including “great place to work.”

**Figure 13. Comments provided in the practice culture survey at the practice level (n=26 practices)**



\* Core expectation of the Pilot

Source: Practice culture and workplace stress survey

**3. In-kind contributions from the practices toward the Pilot objectives:** Respondents from 16 of the 17 practices that responded to the survey reported contributing in-kind resources from the practice’s own sources to support participation in the Pilot. The most frequently mentioned in-kind resources are staff time, such as for meetings. Other in-kind resources related to technology, care management, behavioral health care services, and training to staff on integrating care management. Six practices mentioned resources provided by their PHO to support increases in staff time, new staff, or quality coaches.

**4. Use of the Pilot resources by the practices:** Respondents from 15 of the 17 practices knew how their practice was using the additional payments (Table 6). Most practices receive funds directly for participating in the Pilot. They reported that the primary use of funds was for staff time, including hiring new staff, reimbursing the costs of additional staff time, or increasing the hours of part-time staff. Funds were also used to cover the cost of new technology, such as an

EMR or chronic disease management software system, paying for conferences, contributing to operating expenses, and staff training.

**Table 6. Where Pilot funds are directed (n=17 practices)**

Where funds are directed	Number of practices
Directly to the practice	9
Larger or parent practice group	3
Both directly and to larger/parent practice group	3
Don't know	2

Source: Resource and impact survey

## E. Staff members' reflections on the implementation

**1. Impact of the Pilot activities on their PCMH work:** Respondents felt that the support resources that had the greatest impact were the learning sessions and the data and feedback from the Pilot; 14 and 13 respondents, respectively, said these supports had strong/moderate/some impact (Table 7). The practices were divided on how effective the coaching and monthly conference calls had been; about half the respondents said these had a strong/moderate/some impact and about half said they had little or no impact.

**Table 7. Impact of support resources on Pilot activities (n=16 practices)**

Pilot activity	Strong/moderate impact	Some impact	No/little impact
	Number of practices		
Learning Sessions	11	3	2
Coaching	8	0	8
Data/Feedback from Pilot	7	6	3
Monthly conference calls w/ Pilot practices	5	4	7

Source: Resource and impact survey

**2. Staff experiences in implementing the Pilot:** As described above, the evaluation team conducted informal feedback sessions during the October 2010 Learning Session. The purpose was to hear about the lessons learned by practice staff in implementing the Pilot, challenges they faced, and their approaches to overcoming the challenges. Participants were divided by their staff roles into four groups: physicians/nurse practitioners/physician assistants, nurses and other clinical staff, practice administrators, and quality coaches. Each group met for about an hour and responded to a set of open-ended questions, with facilitation from a member of the evaluation

team. The evaluators reviewed notes taken during the sessions, coded the results, and met as a group to identify common themes among the groups and differences between them.

In each group participants mentioned positive changes and benefits from the Pilot in communication, teamwork, and operations. These included improved communication, greater involvement by physicians and other practice leaders; increased teamwork; staff being more empowered, engaged, collegial, and willing to work on teams; increased focus on patients and preventive care; increased efficiency and streamlining of operations from standardized protocols, documentation, forms, and job descriptions; and increased allocation of tasks to others, which improved care coordination and freed clinicians to provide care. Several participants said that the health coaches and care managers were assets to the practice.

Several of the participants in the MD/NP/PA group said that involvement in the Pilot led to a greater sense of personal growth, intellectual challenge, invigoration, and hope for the future. Members of the other groups mentioned better teamwork and communication, a sense of empowerment and participation, and appreciation for being able to exercise a broader range of responsibilities and skills due to delegation of tasks.

Some participants noted that the supplemental payments were beneficial, but others said their practices did not receive the payments. Some staff members noted that participating in the Pilot enabled their practices to get an EMR earlier than they otherwise would have and some noted that the query and reporting functions required for the Pilot helped them structure their EMRs.

Some of the participants also noted negative changes and challenges in implementing the Pilot. Many of these involved time demands, including the time it takes to inform staff about the Pilot, engage them in the work of the Pilot and get “buy in,” manage the change process, build teams, and attend meetings.

Some participants noted a resistance to change and a “change fatigue” syndrome among staff, which is compounded by the press of daily work flow, other demonstrations and new initiatives, and simultaneous implementation of new HIT systems. Some noted that getting patients involved and maintaining their participation was time consuming and can be stressful. Some noted the special challenges small practices face, especially in having limited staff to take on multiple roles. The quality coaches observed that the physicians seemed to feel less burden than the clinical staff and administrators in Year 1 of the Pilot. This was also reflected in the balance of positive and negative comments from each of the focus groups and in the differences in practice culture and work place stress scores by roles, noted above.

When asked what helped them accomplish their Pilot objectives, the participants mentioned being affiliated with a PHO; having an EMR, especially if it was structured to provide the reports needed for the Pilot; high-level leadership and physician or practice manager champions; designating one person manage the daily work on the Pilot; receiving coaching and support from the Pilot or the PHO; having an opportunity to share successes with other practices; the patient experience and practice culture surveys, which provided guidance on areas to improve; and having an open and flexible attitude. All mentioned the difficulties of trying to make the major

changes involved in becoming a medical home while still operating the practice and providing patient care.

## **IV. Summary and implications**

### ***A. Summary of the findings***

The 26 practices selected to participate in the Maine PCMH Pilot represent the diversity of the state's primary care practices in terms of size, system affiliation, and location. They are similar to each other in that they are all "early adopters," willing to embark on a new initiative with the hope of improving primary care for their patients and their work experience.

By early in Year 1 all had been recognized as meeting minimum or higher levels of medical home functionality, as certified by NCQA, and as a group they had made progress in 9 of the 10 Pilot core expectations. Leadership and team work showed the highest level of achievement at the end of Year 1, as shown from self-assessed progress reports.

The practice culture survey, which captures adaptive reserve and other factors that can influence the degree to which practices can transform themselves into medical homes, showed strength in teamwork, use of HIT, knowledge and use of community resources, adaptive reserve, and patient safety culture. Informal focus group feedback highlighted many specific improvements in adaptive reserve and teamwork. Scores for work place stress showed strengths in personal achievement (in the high range on average) and depersonalization (in the low range, which is desirable).

Many of the staff participating in the focus groups and in the practice culture survey reported positive changes and benefits from participating in the Pilot. They also faced challenges, many related to staff and financial limitations and the press to continue to provide care while implementing the Pilot and other initiatives. At midyear, a few practices had scores that suggest areas for special attention from the quality coaches and the Pilot conveners. The work place stress survey showed levels of emotional exhaustion in the moderate range, suggesting the need for targeted support and strategies.

The quality coaches noted in the focus group that the burden of change seemed to fall more on clinical staff and administrators, as they took on new tasks and responsibilities, than on physicians. This was also reflected in some of the domains measured by the practice culture and workplace stress survey, in which physicians/NPs/PAs scored higher than the other groups.

There is substantial variation among the practices in some of the culture/work place stress measures, especially in adaptive reserve and patient safety culture. Six practices had significantly higher scores on two or three domains, suggesting that they can share useful information with the other practices on "how they did it." Three practices have relatively low levels of two or three domains of practice culture or stress, indicating areas for special attention. Practices received their results from the practice culture and work place stress survey. The conveners reached out to

the practices that had low scores on the culture/work place stress measures to provide extra resources and support to assist them in targeting interventions to address problems identified.

The practices contributed in-kind resources, apart from those received from the conveners, to support participation in the Pilot, notably staff time. Some practices that are affiliated with a PHO also received in-kind support such as increased staff time, new staff, or quality coaches. Respondents from some of the Pilot practices said their practices do not receive supplemental payments for participating in the Pilot.

Respondents felt that the support resources they received from the conveners that had the greatest impact on their Pilot work were the learning sessions and the data and feedback they received. About half said that the coaching and monthly conference calls had an impact.

### ***B. Implication for the Pilot practices, coaches, and conveners***

Many of the recommendations below have already been implemented, based in part on interim results of the implementation evaluation:

- Continue to build on the practices' strengths and highlight the practices with strengths in practice culture and work place stress measures.
- Continue to provide tailored support to practices with low scores on the practice culture or work place stress measures.
- Seek to understand more about how the Pilot affects people in different professional roles, to capitalize on the positive impacts and benefits and try to minimize the negative impacts.
- Address issues of emotional exhaustion and "change fatigue" among practice staff.
- Continue the learning sessions and the data and feedback.
- Review the coaching and conference calls to maximize their usefulness to the practices.
- Provide additional support to small practices and practices that are not affiliated with PHOs.
- Try to assure that practices receive supplemental financial resources to support their Pilot activities.

### ***C. Implications for future PCMH evaluations***

*Maximizing evaluation resources:* In designing the implementation evaluation, we had to collect information on all 26 of the Pilot practices within a limited budget and time frame. This precluded us from doing interviews with each practice. We met this challenge by using multiple sources of information and piggy-backing onto previously collected information. We also drew on the learning sessions, application forms, and practice self-assessment reports, which are convenient sources of information on the practices. This approach worked fairly well.

*The learning sessions:* We observed two of the sessions and conducted focus group discussions at a third. The group discussions gave us rich insights into staff members' reactions to the Pilot and differences by roles. In retrospect, scheduling these discussions earlier in the evaluation and repeating them during subsequent Learning Sessions would have provided even richer information on the participants' perspectives and insights.

*Practice culture/work place stress survey:* These were well received by the practices and the practice staff, as indicated by the high response rate and interest from the practice managers in receiving their practice's scores for comparison with the aggregated group results. For several reasons, we were not able to administer this survey until August 2010, 8 months into Year 1. The quality coaches said that if they had had the results of these surveys earlier in the implementation they could have used the results to identify issues to work on and to motivate practice staff toward transformation.

*The resource survey:* The facts that some of the practices may not receive direct financial support for participating in the Pilot and that many of the practices provide in-kind resources to support the Pilot is useful information regarding the implementation; it may be helpful in interpreting the results of the quality and efficiency evaluation. However, the low response rate to this survey suggests that future evaluations try to develop more effective means of eliciting this information.

*Progress in achieving core expectations:* The fact that the Pilot practices reported progress in achieving the objectives between the time of application (August 2009) and the formal start date of the Pilot (January 2010) is noteworthy. It suggests that the practices may have already been moving toward becoming medical homes *before*, and independent of, the Pilot, or that the application process had stirred this achievement, or both. It confirms the wisdom of the quality and efficiency evaluation design, which will use 2008 (instead of 2009) as the baseline year for measuring improvements in quality and efficiency. It also emphasizes the importance of using comparison groups of practices not in the Pilot to measure the impact of PCMH pilots, to help account for changes independent of the intervention.

## Endnotes

<sup>1</sup> Maine Quality Counts. *Maine Patient Centered Medical Home Pilot. Year One Report*. [Web Page]. 2010. Available at: [http://www.mainequalitycounts.org/hosp-tools-and-resources/doc\\_download/22-pcmh-year-one-report.html](http://www.mainequalitycounts.org/hosp-tools-and-resources/doc_download/22-pcmh-year-one-report.html). Accessed March, 2011.

<sup>2</sup> Nutting PA, Miller WL, Crabtree BF, Jaen CR, Stewart EE, Stange KC. Initial Lessons From the First National Demonstration Project on Practice Transformation to a Patient-Centered Medical Home. *Ann Fam Med* 2009;7(3):254-60.

<sup>3</sup> Agency for Healthcare Research and Quality. *Medical Office Survey on Patient Safety Culture*. Rockville, MD: AHRQ; November 2010.

<http://www.ahrq.gov/qual/patientsafetyculture/mosurvindex.htm>

<sup>4</sup> Jaen CR, Crabtree BF, Palmer RF, et al. Methods for Evaluating Practice Change Toward a Patient-Centered Medical Home. Supplemental Appendix 4: Clinician Staff Questionnaire. *Ann Fam Med*. 2010; 8 Suppl 1:S9-20; S92.

[http://www.annfammed.org/cgi/data/8/Suppl\\_1/S9/DC1/4](http://www.annfammed.org/cgi/data/8/Suppl_1/S9/DC1/4)

<sup>5</sup> Maslach C, Jackson SE. The Measurement of Experienced Burnout. *J Organ Behav*. 1981; 2:99-113.

<sup>6</sup> WWAMI Rural Health Research Center. *Rural-Urban Commuting Area (RUCA) Codes*. [Web Page]. 2006, May 31. Available at: <http://depts.washington.edu/uwruca>. Accessed January 14, 2011.