MARYLAND HEALTH CARE COMMISSION

# Evaluation of the Maryland Multi-Payor Patient Centered Medical Home

*An Overview of the First Annual Report*

*October 2014*

**Craig P. Tanio, MD, Chair**
**Ben Steffen, Executive Director**

MARYLAND HEALTH CARE COMMISSION

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## Overview

The Maryland Health Care Commission (MHCC) conducted an evaluation after the first year of the Maryland Multi-Payor Patient Centered Medical Home Program (MMPP) pilot. At the end of the first year, the findings suggest that MMPP practices improved the patient experience, enhanced the provider satisfaction, and increased the quality of health care delivery. The MHCC launched the MMPP pilot in 2011 in response to Maryland law (PCMH law) that required MHCC to establish a Patient Centered Medical Home (PCMH) Program. The MMPP pilot is a three year program established to analyze the effectiveness of the PCMH model of primary care. The PCMH is a model of care where a team of health care professionals, guided by a primary care provider, delivers recurring, comprehensive, and coordinated care in a culturally sensitive manner to patients throughout their lives. [1]

This is a partial summary of the *Evaluation of the Maryland Multi-Payor Patient Centered Medical Home, First Annual Report* (annual report) that was released in December of 2013.[2] The evaluation assessed the progress of MMPP practices in achieving PCMH goals that include improving the quality of care, increasing patient and provider satisfaction, and controlling health care costs. In general, the report suggests that all 52 participating MMPP practices have made progress towards achieving the PCMH quality goals. As expected, overall cost savings of the program were mixed during the first year of the pilot.[3]

A uniqueness of the MMPP as compared to many other PCMH programs nationally is the diversity of participating health plan sponsors. The existing PCMH law requires the five largest State-regulated payors (Aetna, Inc., CareFirst BlueCross BlueShield, CIGNA Health Care, Mid-Atlantic Region, Coventry Health Care, and UnitedHealthcare) to financially support the program by providing upfront and incentive payments to MMPP practices that qualify.[4] Other health plan sponsors have elected to participate in the MMPP, including: many of the Maryland Medical Assistance managed care organizations; Federal Employees Health Benefits Program; Maryland State Employees Health Benefit Plan; TRICARE, the health care program serving Uniformed Service members; and private employer plans, such as Anne Arundel Medical Center.

## National Committee for Quality Assurance

One of the requirements for MMPP practices was to achieve National Committee for Quality Assurance (NCQA) PCMH recognition. NCQA is a private, not-for-profit organization with the goal of improving health care quality by promoting and supporting practice transformation. NCQA's PCMH recognition program recognizes practices functioning as medical homes by using systematic, patient centered and coordinated care management processes. The NCQA PCMH recognition

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[1] Maryland Annotated Code., Health-General. § 19-1A-02., enacted as Senate Bill 855, House Bill 929 (2010).
[2] The first year evaluation of the MMPP pilot was completed by IMPAQ International, a research, evaluation, and technical assistance firm. Available at: https://mhcc.maryland.gov/pcmh/documents/PCMH_EvaluationYear1_Report%20FINAL.pdf.
[3] The final MMPP pilot evaluation is currently underway and is expected to be released in the Spring of 2015.
[4] Maryland Annotated Code., Health-General. § 19-1A-02., enacted as Senate Bill 855, House Bill 929 (2010). Carriers with over $90 million in written premiums for health benefit plans in the State in the most recent reporting year are classified as large carriers.

program includes six standards that align with the core components of advanced primary care.[5] In order for practices to achieve NCQA recognition, they must demonstrate compliance with criteria comprised of the following standards: enhance access and continuity; identify and manage patient populations; plan and manage care; provide self-care support and community resources; track and coordinate care; and measure and improve performance. Practices can achieve NCQA PCMH recognition Level 1, 2, or 3 based on the NCQA assessment of compliance with criteria; Level 3 recognition requires the highest level of compliance with the most number of standards.[6] Practice points are awarded based on defined standards and performance elements.

MMPP practices were required to demonstrate practice transformation by achieving NCQA Level 1 recognition by January of 2012 and Level 2 recognition by September 30, 2012. All MMPP practices advanced in their NCQA PCMH recognition level. Twelve practice sites[7] advanced from Level 1 to Level 2, and one practice progressed from Level 1 to Level 3. In addition, seven practices with Level 2 recognition in 2010 achieved Level 3 by the end of 2012. The table below summarizes the changes in MMPP practice NCQA PCMH recognition Levels.

| NCQA Recognition Level | 2010 | | 2012 | |
|---|---|---|---|---|
| | Practice Sites # | Percent % | Practice Sites # | Percent % |
| Level 1 | 13 | 25 | 0 | 0 |
| Level 2 | 18 | 34.6 | 23 | 44.2 |
| Level 3 | 21 | 40.4 | 29 | 55.8 |

## Limitations

The information contained in this document provides a partial summary of the annual report. A great deal of the annual report is not discussed; items chosen for inclusion were based on MHCC assessment of the annual report. The information is presented without bias and readers are encouraged to review the annual report for a comprehensive analysis of the MMPP's first year of performance.[8]

[5] NCQA website. Accessed on May 2, 2014. Available at: www.ncqa.org/Programs/Recognition/PatientCenteredMedicalHomePCMH.aspx.
[6] Level 1 requires 35-59 points; Level 2 requires 60-84 points; Level 3 requires 85-100 points: For more information. Available at: www.ncqa.org/Portals/0/Programs/Recognition/RPtraining/PCMH%202011%20standards%201-3%20%20workshop_2.3.12.pdf.
[7] Practices may have multiple locations, which are referred to as practice sites.
[8] The first year evaluation of the MMPP pilot was completed by IMPAQ International, a research, evaluation, and technical assistance firm. Available at: https://mhcc.maryland.gov/pcmh/documents/PCMH_EvaluationYear1_Report%20FINAL.pdf .

## Evaluation Approach

The annual report consists of four parts, the three PCMH goals and provider satisfaction. The first part details the implementation of practice transformation[9] to the PCMH model, through interviews, site visits, and self-reported data.[10] Site visits and interviews were conducted between September 2012 and February 2013 among a sample of nine MMPP practices selected from varying geographic settings, ownership types, and specialties to ensure representation of different practice characteristics. Three practices were selected from each of three geographic settings: urban, rural, and suburban. A mix of privately owned and hospital owned practices with a combination of family and internal medicine, pediatrics, and geriatrics were evaluated.

The second part of the annual report discussed satisfaction among patients in MMPP practices using surveys conducted between January and February 2013 to determine how patients rate the care they received from their primary care provider. There were two types of surveys: an adult survey was given to patients 18 years of age or older, and a child survey was used for patients less than 18 years of age who have a caregiver.[11] The two surveys differ in that the adult surveys measured family engagement, since the child survey is filled out by the caregiver. A proportionate sample was chosen by insurance type.[12] This led to 670 commercially insured patients to be surveyed and a total of 348 adult surveys and 214 child surveys were included in the results.

The third part of the annual report pertains to surveys to assess satisfaction among providers. The surveys, primarily aimed at physicians, physician assistants, and advanced practice nurses, were given to MMPP practices, as well as providers in comparison practices.[13] The survey questions pertained to perceptions of practice transformation to the PCMH model, provider satisfaction with chronic illness management, and general satisfaction with PCMH programs. In total, 105 MMPP practitioners and 136 comparison practitioners completed the survey.

The last part of the annual report describes program outcomes such as access, quality, utilization, disparities, and cost of care. Two calendar years of health care claims (claims) data were used—baseline (2010) and year one (2011) of the MMPP.[14] The two sources of data that were used for the evaluation are the Maryland All Payor Claims Database (APCD) and the Maryland Board of Physicians (MBP) licensure database. The APCD includes claims data collected from Maryland health insurance companies. The MBP database was used to identify the physicians associated with

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[9] Practice transformation is the process of practices using health care teams to initiate and maintain quality improvements through evidence-based care. Embedded in practice transformation are the PCMH concepts of relationships with a care team, comprehensiveness, coordination and access.

[10] Self-reported data is data submitted by the MMPP practices into an online data portal with structured questions and fields.

[11] A caregiver is defined as a family member or friend who helps a child less than 18 years of age with his or her health care.

[12] 58,216 patients had Medicaid, while 146,341 had commercial insurance, for a total of 204,557 patients in the MMPP.

[13] Comparison practices are defined as non-MMPP practices that have similar characteristics of participating MMPP practices.

[14] For purposes of this evaluation, baseline claims data was obtained for the year prior to the launch of the MMPP pilot (2010) and year one claims data was obtained for the first performance year of the MMPP pilot (2011).

each practice. To estimate the impact of the MMPP on health care outcomes, 13 quality measures, 12 utilization measures, and 12 cost measures were analyzed to assess changes from the baseline year through program year one.[15]

## Results

### *Practice Transformation to the Patient Centered Medical Home Model*

An essential part of the first evaluation was to assess the transformation of MMPP practices to a PCMH. Smaller practices with structured policies reported more success in implementing practice transformation and involving providers and staff in the transformation process than larger practices. All respondents noted that the care coordination process has improved since transforming to the PCMH model of care. An expected finding was that practices affiliated with a hospital had more clinical staff resources and were better able to coordinate care than practices not affiliated with a hospital.

Two key components of the PCMH model of care reported by MMPP practices to improve quality of care and reduce costs are care coordination and standardization of policies and procedures. The MMPP practices reported that improved care coordination processes had a positive impact on the quality of care provided. Improved care coordination was primarily achieved by the addition of care managers within each practice who worked to coordinate patient care. By and large, care managers conducted between-visit monitoring of patients with certain health conditions that required ongoing care, which included patients that frequently visited hospital emergency departments. In addition, the use of an electronic health record system proved valuable as practices improved coordination activities and communication about patient follow-up and care plans.

### *Patient Surveys*

Improving the patient-centeredness of primary care is a goal of practice transformation. The purpose of the patient surveys was to assess how patients perceive the care they receive from MMPP providers. Results of the patient satisfaction surveys indicate that patients of MMPP providers were generally satisfied with the care they received and tended to trust highly in their MMPP provider. Adults and respondents for children reported good provider communication and always having received timely appointments, care, and information from their provider. Additionally, respondents for children reported being satisfied with receiving advice from their provider on staying healthy, which is an important component of advanced primary care. Adult patients with chronic conditions reported that medication decisions were made collectively with

[15] Quality measures enable the user to quantify the quality of a selected aspect of health care delivery by comparing it to an evidence-based criterion that specifies what constitutes better quality. Utilization measures quantify the extent to which a given group uses a particular service in a specified period, usually expressed as the number of services used per year per 100 or per 1,000 persons eligible for the service. Cost measures quantify the change in health care costs from one time period to another. All three measures were compared for one twelve month period to the prior twelve month period to determine if any changes occurred.

their provider. In general, vulnerable populations[16] rated their provider more highly than non-vulnerable populations. For example, African-Americans responded that they were more likely to receive advice from their providers on staying healthy, and respondents for African-American children were more likely to feel that providers supported children in taking care of their own health. Respondents for chronically ill children gave higher ratings regarding how well providers communicated than respondents for non-chronically ill children.

### *Provider Surveys*

MMPP practices generally felt that the pilot had enhanced the way their practice operated as compared to the comparison group. The provider survey assessed providers' experience and satisfaction with key elements of PCMH and the MMPP, such as practice transformation and chronic illness management. The survey included questions that could be used to compare providers in the MMPP to other PCMH projects in Maryland and to practices who do not participate in PCMH programs. Compared to non-MMPP providers, MMPP providers reported increased job satisfaction and were content with their upfront and incentive payments. More MMPP providers viewed the business office and administration as an essential component of the practice as compared to providers in the comparison group. MMPP practices were also more likely than non-MMPP practices to include expanded care teams such as physician assistants, nurse practitioners, registered nurses or nurse care managers, medical assistants, and health educators. MMPP practices generally felt that the pilot had enhanced the way their practice operated as compared to the comparison group.

### *Program Outcomes*

The evaluation reviewed program outcomes in the MMPP to assess the effectiveness of practices in improving access, delivery, and quality while reducing disparities, utilization, and costs. Notable findings included increases in well-care visits by adolescents, preventative well women exams, and office visits to the primary care physician. Other key findings were decreased hospital admissions due to management of asthma for young adults and decreases in the number of office visits to specialists for asthma patients. In addition, the MMPP practices showed decreased costs in four out of twelve categories: outpatient, office visit, laboratory, and non-categorized costs.

## Remarks

The existing model of health care delivery is fragmented and difficult for consumers to navigate. A general absence of coordinated care can result in duplicated services, hospital readmissions, overuse of more intensive procedures, and an overall reduction in patient health outcomes. PCMH offers the promise of curbing the fragmentation and controlling costs through primary care where, among other things, care is patient centered, team-based, comprehensive, and coordinated.[17] The MMPP pilot is an opportunity to leverage the benefits of primary care to promote integrated care delivery in Maryland. Results of the first year evaluation are promising as it relates to care

[16] Vulnerable populations as defined in the annual report include African-Americans, Medicaid insureds, and other patients with chronic conditions.

[17] ARHQ. Defining the PCMH. June 14, 2012. Available at: www.pcmh.ahrq.gov/portal/server.pt/community/pcmh__home/1483/pcmh_defining_the_pcmh_v2http://www.pcmh.ahrq.gov/portal/server.pt/community/pcmh__home/1483/pcmh_defining_the_pcmh_v2.

delivery; however, cost savings are inconclusive. It is encouraging to see progress towards improving the quality of health care delivery in the first annual report. Early results set an expectation for stronger effects of the MMPP on the quality of health care delivery in the final two years of the program. During the first year, MMPP practices have done a laudable job in embracing the concepts of PCMH that will ultimately improve quality and generate system-wide savings.

# Appendix A: Maryland Annotated Code., Health-General, § 19-1A

## § 19-1A-01. Definitions [subtitle subject to abrogation]

(a) In general. -- In this subtitle the following words have the meanings indicated.

(b) Carrier. -- "Carrier" has the meaning stated in *§ 15-1801 of the Insurance Article.*

(c) Federally qualified health center. -- "Federally qualified health center" has the meaning stated in *42 U.S.C. § 254b.*

(d) Health benefit plan. -- "Health benefit plan" has the meaning stated in *§ 15-1801 of the Insurance Article.*

(e) Managed care organization. -- "Managed care organization" has the meaning stated in § 15-101 of this article.

(f) Patient centered medical home. -- "Patient centered medical home" means a primary care practice organized to provide a first, coordinated, ongoing, and comprehensive source of care to patients to:

(1) Foster a partnership with a qualifying individual;

(2) Coordinate health care services for a qualifying individual; and

(3) Exchange medical information with carriers, other providers, and qualifying individuals.

(g) Primary care practice. -- "Primary care practice" means a practice or federally qualified health center organized by or including pediatricians, general internal medicine physicians, family medicine physicians, or nurse practitioners.

(h) Prominent carrier. --

(1) "Prominent carrier" means a carrier reporting at least $ 90,000,000 in written premiums for health benefit plans in the State in the most recent Maryland health benefit plan report submitted to the Insurance Commissioner as required under *§ 15-605 of the Insurance Article.*

(2) "Prominent carrier" does not include a group model health maintenance organization as defined in § 19-713.6 of this title.

(i) Qualifying individual. -- "Qualifying individual" means:

(1) A person covered under a health benefit plan issued by a carrier; or

(2) A member of a managed care organization.

(j) Single carrier patient centered medical home program. -- "Single carrier patient centered medical home program" has the meaning stated in *§ 15-1801 of the Insurance Article.*

## § 19-1A-02. In general [subtitle subject to abrogation]

(a) Established. -- Subject to § 19-1A-03(a) of this subtitle, the Commission shall establish the Maryland Patient Centered Medical Home Program to promote development of patient centered medical homes.

(b) Participation. --

(1) A carrier may elect to participate in the Maryland Patient Centered Medical Home Program.

(2) Notwithstanding the provisions of paragraph (1) of this subsection, a prominent carrier shall participate in the Maryland Patient Centered Medical Home Program.

(3) Subject to the limitations of the State budget, the Department:

(i) May require that certain managed care organizations participate in the Maryland Patient Centered Medical Home Program as allowed by law; and

(ii) Notwithstanding any other provision of this article, may mandate the participation in the Maryland Patient Centered Medical Home Program of Maryland Medical Assistance Program enrollees.

(4) The Department shall ensure that participation in the Maryland Patient Centered Medical Home Program of managed care organizations and Maryland Medical Assistance Program enrollees shall support the quality and efficiency standards established in the HealthChoice Program.

(c) Authorization to implement single carrier patient centered medical home program. -- The Commission may also authorize a carrier to implement a single carrier patient centered medical home program that:

(1) Pays and shares medical information with a patient centered medical home in accordance with *§ 15-1802 of the Insurance Article*; and

(2) Conforms to the principles of the patient centered medical home as adopted by a national coalition of physicians, carriers, purchasers, and consumers.

(d) Incentive-based compensation. -- Nothing in this section shall be construed to limit or prohibit a carrier from providing a bonus, fee based incentives, bundled incentives, or other incentive-based compensation:

(1) As authorized by the Commission for a patient centered medical home; or

(2) As allowed under *§ 15-113 of the Insurance Article.*

## § 19-1A-03. Requirements for establishing Program [subtitle subject to abrogation]

(a) In general. -- Notwithstanding any State or federal law that prohibits the collaboration of carriers or providers on payment, the Commission may establish the Maryland Patient Centered Medical Home Program, if the Commission concludes that the Program:

(1) Is likely to result in the delivery of more efficient and effective health care services; and

(2) Is in the public interest.

(b) Adoption of standards. -- In establishing the Maryland Patient Centered Medical Home Program, the Commission, in consultation with the Department, carriers, managed care organizations, and primary care practices, shall adopt:

(1) Standards qualifying a primary care practice as a participant in the Maryland Patient Centered Medical Home Program;

(2) General standards that may be used by a carrier or a managed care organization to pay a participating patient centered medical home for services associated with the coordination of covered health care services;

(3) General standards to govern the bonus, fee based incentive, bundled fees, or other incentives a carrier or a managed care organization may pay to a participating patient centered medical home based on the savings from reduced health care expenditures that are associated with improved health outcomes and care coordination by qualifying individuals attributed to the participating patient centered medical home;

(4) The method for attributing a patient to a participating patient centered medical home;

(5) The uniform set of health care quality and performance measures that the participating patient centered medical home is to report to the Commission and to carriers or managed care organizations;

(6) The enrollment form notifying carriers or managed care organizations a qualifying individual has voluntarily agreed to participate in the Maryland Patient Centered Medical Home Program; and

(7) The process for primary care practices to commence and terminate participation in the Maryland Patient Centered Medical Home Program.

(c) Considerations in developing standards. -- In developing the standards required in subsection (b)(1) of this section, the Commission shall consider:

(1) The use of health information technology, including electronic medical records;

(2) The relationship between the primary care practice, specialists, other providers, and hospitals;

(3) The access standards for qualifying individuals to receive primary medical care in a timely manner;

(4) The ability of the primary care practice to foster a partnership with qualifying individuals; and

(5) The use of comprehensive medication management to improve clinical outcomes.

(d) Contents of general standards. -- The general standards required in subsection (b)(2) and (3) of this section shall:

(1) Define the payment method used by a carrier to pay a participating patient centered medical home for services associated with the coordination of covered health care services; and

(2) Define the methodology for determining any bonus, fee based incentive, bundled fees, or other incentives to be paid by a carrier to a participating patient centered medical home based on improvements in quality or efficiency.

(e) Forms; information sharing. --

(1) To commence, renew, or terminate participation in the Maryland Patient Centered Medical Home Program, a qualifying individual shall complete forms adopted by the Commission.

(2) The enrollment form shall authorize the carrier, the participating patient centered medical home treating the qualifying individual, and other providers treating the qualifying individual to share medical information about the qualifying individual with each other.

(3) The authorization under paragraph (2) of this subsection shall be valid for a period not to exceed 1 year.

(4) The renewal form shall extend the authorization under paragraph (2) of this subsection for an additional period not to exceed 1 year.

(5) A carrier participating in the Maryland Patient Centered Medical Home Program shall accept forms adopted by the Commission as the sole instrument for notification that a qualifying individual has voluntarily agreed to participate or terminate participation in the Maryland Patient Centered Medical Home Program.

(f) Provider and patient culturally and linguistically appropriate educational activities and care. --

(1) The Commission shall conduct culturally and linguistically appropriate provider and patient educational activities to increase awareness of the potential benefits for providers and patients of participating in the Maryland Patient Centered Medical Home Program.

(2) The Commission shall ensure that a participating patient centered medical home provides, on an ongoing basis, culturally and linguistically appropriate care for the purpose of reducing health disparities.

## § 19-1A-04. Regulations [subtitle subject to abrogation]

The Commission may adopt regulations to:

(1) Establish the Maryland Patient Centered Medical Home Program; and

(2) Authorize a carrier to implement a single carrier patient centered medical home program

## § 19-1A-05. Evaluations [Subtitle subject to abrogation]

(a) Independent evaluations. --

(1) The Commission shall retain a consultant or consulting firm to conduct an independent evaluation of the effectiveness of the Maryland Patient Centered Medical Home Program in reducing health care costs and improving health care outcomes.

(2) A single carrier patient centered medical home program may request to be included in the evaluation described in paragraph (1) of this subsection.

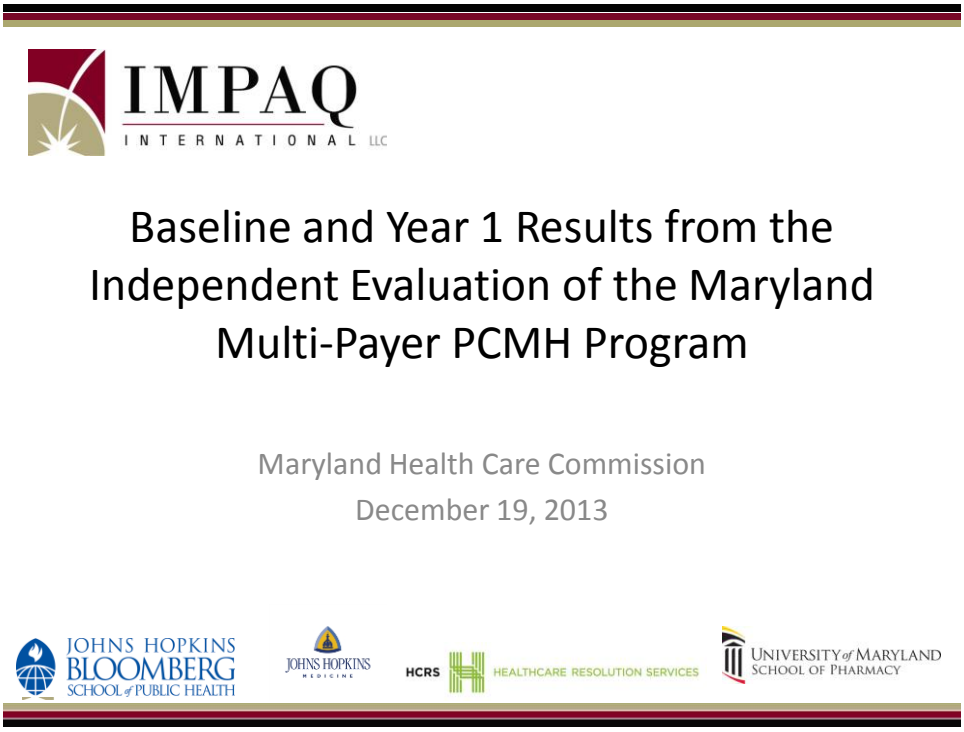
(3) In conducting the evaluation, the Commission shall consider, subject to budget limitations, improvements in health care delivery, improved clinical care processes, increased access to care coordination, adequacy of enhanced payments to cover expanded services, increased patient satisfaction with care, increased clinician and staff work satisfaction, lower total costs of care, and reductions in health disparities resulting from the Maryland Patient Centered Medical Home Program and any authorized single carrier patient centered medical home program included in the study.

(b) Reports. -- On or before December 1, 2014, the Commission shall report its findings, in accordance with *§ 2-1246 of the State Government Article*, to the Senate Finance Committee and the House Health and Government Operations Committee.

**HISTORY:** 2010, chs. 5, 6

## Appendix B: IMPAQ International, LLC Presentation to MHCC on December 19, 2013

IMPAQ presented the slides in Appendix B, which reviewed the results from the evaluation, at the MHCC monthly meeting on December 19, 2013.



# Agenda

- 3 parts of evaluation
  - Practice Transformation/ PCMH Implementation
    - Site visits & interviews with 9 practices
    - NCQA PCMH recognition data
  - Patient and Provider Satisfaction
    - Early and Late Surveys
    - Comparison Groups for Provider Surveys
  - Outcomes
    - Utilization, Access and Quality Measures
    - Two Matched Comparison Groups



# TRANSFORMATION EVALUATION

# Site Visit Logistics

- Conducted site visits from September 2012 to February 2013 at nine practices (selected by u/r/s location and private, hospital-owned, and FQHC setting)
- Conducted four to six in-depth interviews at each site with:
  - Practice managers
  - PCMH leads
  - Care coordinators
  - Clinical staff (e.g., nurses, providers)
  - Support staff (e.g., medical assistants, front desk staff)

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# Interview Topics

- Participants discussed their experience with and perceptions of:
  - Transformation process
  - Staff perceptions
  - Health outcomes and disparities
  - Care Coordination
  - Financial costs and savings

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## MMPP Effects

- Increased communication among staff
- Better interaction with patients
- Most practices have not observed positive or negative effects on health outcomes.
- Some care coordinators noted anecdotal indicators that point to positive outcomes.
- Good support for complex patients may help reduce disparities.



## Practice characteristics matter

- Smaller practices had limited resources to:
  - Purchase sophisticated EMR systems to assist with better data tracking and reporting
  - Hire additional staff to coordinate care
- Larger practices struggled with communication among departments and facilities.
- Hospital-owned practices' access to hospital resources increased their ability to coordinate care.
- Pediatric practices found the PCMH model to align with the pediatric-care model.

# Findings

- PCMH champions are important to increasing staff engagement.
- Involving providers and staff early in the process increases collaboration and satisfaction.
- Though developing and implementing EMR systems has been challenging, EMRs have been instrumental in increasing coordination and monitoring outcomes.

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# Findings

- Care coordinators, as closing gaps in care, have had the most impact on coordination of care.
- Though cost savings had not been realized at the time of interviews, sites are optimistic that the program will generate savings over time.
- PCMH has been a catalyst to rethink how quality is monitored and reported to improve health outcomes.

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# NCQA Recognition Level

| NCQA Recognition Level | 2010 | | 2012 | |
|---|---|---|---|---|
| | Count | Percent | Count | Percent |
| Level 1 | 13 | 25.0% | 0 | 0.0% |
| Level 2 | 18 | 34.6% | 23 | 44.2% |
| Level 3 | 21 | 40.4% | 29 | 55.8% |

- 12 practice sites that started the program at Level 1 achieved Level 2
- 1 practice site that started the program at Level 1 achieved Level 3
- 7 practice site that started the program at Level 2 achieved Level 3

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# SATISFACTION EVALUATION

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# Baseline Satisfaction Survey: Patient

- Telephone surveys
  - Sampling
    - Stratify by practice and commercial vs. Medicaid insurance type
    - Oversample children, African Americans, and chronically ill patients
    - Response rate: 14.4% (384 adults and 234 children)
  - Survey questions
    - Consumer Assessment of Healthcare Providers and Systems (CAHPS) PCMH Survey
    - Patient Assessment of Care for Chronic Conditions (PACIC) Tool
    - Family engagement
  - Patient survey analysis methodology
    - Accounts for stratification and applies sampling weights

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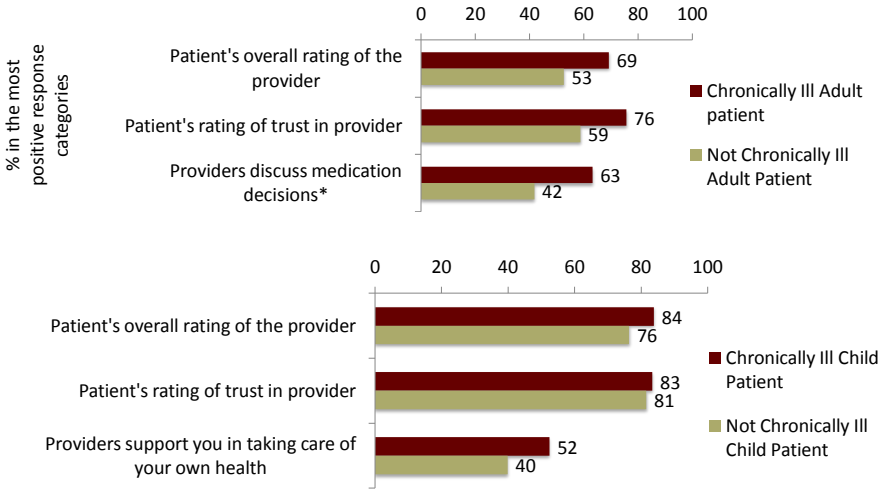
# Quality of Care by Chronic Conditions




*P value < 0.05

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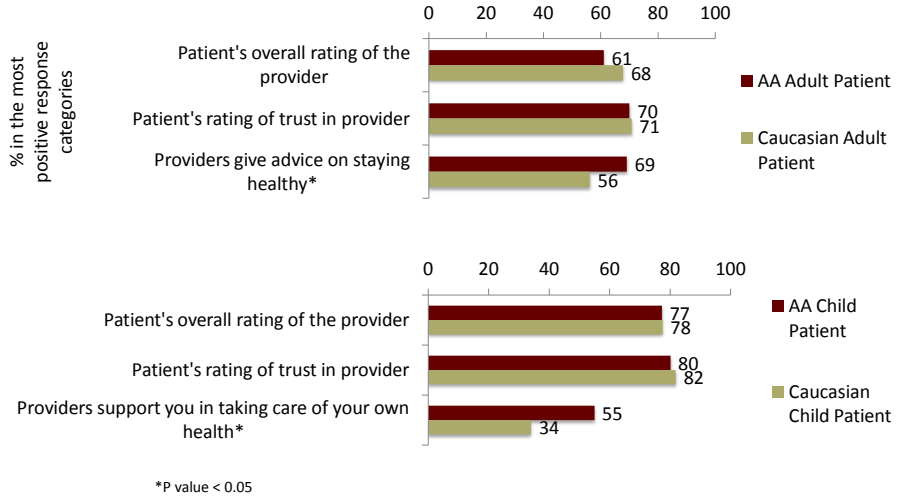
## Quality of Care by Race




*P value < 0.05

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## Patient Assessment of Chronic Illness Care

| ADULT | Medicaid | | Commercial | | |
|---|---|---|---|---|---|
| | mean | SE | mean | SE | p value* |
| Patient activation | 3.55 | 0.26 | 3.38 | 0.11 | 0.299 |
| Delivery system design/decision support | 3.85 | 0.23 | 3.60 | 0.10 | 0.310 |
| Goal setting | 3.26 | 0.25 | 2.70 | 0.11 | 0.060 |
| **Problem solving/contextual counseling** | **3.91** | **0.23** | **3.58** | **0.11** | **0.017** |
| Follow-up/coordination | 2.85 | 0.26 | 2.16 | 0.12 | 0.090 |

| CHILD | Medicaid | | Commercial | | |
|---|---|---|---|---|---|
| | mean | SE | mean | SE | p value* |
| Patient activation | 4.07 | 0.26 | 3.42 | 0.30 | 0.117 |
| Delivery system design/decision support | 4.11 | 0.25 | 3.81 | 0.24 | 0.381 |
| Goal setting | 3.60 | 0.26 | 2.89 | 0.21 | 0.213 |
| Problem solving/contextual counseling | 4.08 | 0.25 | 3.78 | 0.17 | 0.355 |
| Follow-up/coordination | 2.93 | 0.32 | 2.29 | 0.22 | 0.300 |

*Adjusted for respondent's age, gender, education level, whether the respondent lives with others, self-rated overall health, self-rated mental health, length of experience with the provider, Medicaid or commercial insurance status, and practice type.

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# Summary:
# Baseline Patient Satisfaction Survey

- Where there are any statistical differences, in general the more vulnerable population rates their provider or practice more highly.
  - Chronic conditions: providers pay attention discuss medication decisions with them
  - Race: AA children were more likely to feel their provider supported them in taking care of their own health; AA adults were more likely to receive advice on staying healthy
  - Medicaid and commercially insured patients: no major differences except among those with CCs (problem solving/ contextual counseling)

- Patients with chronic conditions:
  - Rate problem solving/contextual counseling, delivery system redesign/ decision support and patient activation most highly
  - Follow up/ coordination is rated lower

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# Baseline Satisfaction Evaluation: Provider

- Online surveys
  - 105 providers in 52 MMPP practices (response rate = 42%)
  - 53 in 52 CF PCMH (response rate = 28%)
  - 83 in 51 unexposed practices (response rate = 37%)

  - Question items
    - Satisfaction with care
    - Satisfaction with job
    - Work content and team composition
    - Care team functioning
    - Perceptions of PCMH participation

  - Provider Survey Analysis Methodology
    - Ordinal logistic regression with robust clustering to compare 3 groups

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# Work Content I

| | MMPP (n = 99) | | Control Group CF PCMH Match (n = 49) | | Control Group Unexposed Match (n = 67) | | P value* |
|---|---|---|---|---|---|---|---|
| | | % | | % | | % | |
| Checking in and orienting patients | Administrative Staff | 61 | Administrative Staff | 65 | Administrative Staff | 58 | 0.293 |
| Taking vital signs | Medical Assistant | 89 | Medical Assistant | 75 | Medical Assistant | 82 | **0.042** |
| Screening patients for diseases | Clinician | 60 | Clinician | 82 | Clinician | 72 | **0.002** |
| Asking patients whether they smoke | Medical Assistant | 57 | Clinician | 50 | Clinician | 63 | **<0.001** |
| Obtaining immunization histories from patients | Medical Assistant | 49 | Clinician | 53 | Clinician | 64 | **<0.001** |
| Gathering information on screening | Clinician | 46 | Clinician | 81 | Clinician | 81 | **<0.001** |
| Gathering information on chronic disease management | Clinician | 66 | Clinician | 94 | Clinician | 82 | **0.004** |
| Deciding how soon patients calling for an appointment will be seen | Administrative Staff | 35 | Administrative Staff | 47 | Clinician | 33 | 0.335 |
| Obtaining medical records from outside providers | Administrative Staff | 47 | Administrative Staff | 63 | Administrative Staff | 51 | **<0.001** |

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* From Chi-squared test or Fisher's exact test

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# Team Composition

| | MMPP (n = 95) | Control Group CF PCMH Match (n = 47) | Control Group Unexposed Match (n = 62) | P value* |
|---|---|---|---|---|
| | Always members of team (%) | Always members of team (%) | Always members of team (%) | |
| Primary care physicians | 93 | 93 | 77 | **0.007** |
| Physician's assistants | 56 | 33 | 20 | **<0.001** |
| Nurse practitioners | 56 | 47 | 37 | **0.015** |
| Registered nurses or nurse case managers | 71 | 42 | 54 | **0.003** |
| Licensed vocational nurses (LVNs or LPNs) | 31 | 18 | 18 | 0.271 |
| Medical assistants | 91 | 89 | 76 | **0.045** |
| Clerks or receptionists | 86 | 85 | 82 | 0.965 |
| Health educators | 26 | 13 | 3 | **0.002** |
| Pharmacists | 14 | 7 | 16 | 0.669 |
| Social workers | 18 | 16 | 22 | 0.644 |
| Community health workers | 2 | 4 | 2 | 0.504 |
| Visiting nurses | 1 | 7 | 8 | 0.134 |
| Nutritionists or dieticians | 7 | 12 | 10 | 0.758 |
| Mental (behavioral) health professionals | 9 | 11 | 13 | 0.779 |

* From Chi-squared test or Fisher's exact test

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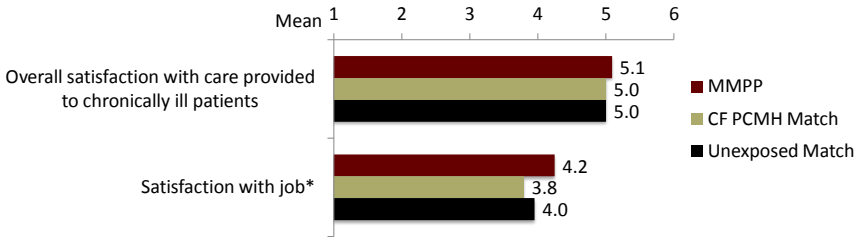
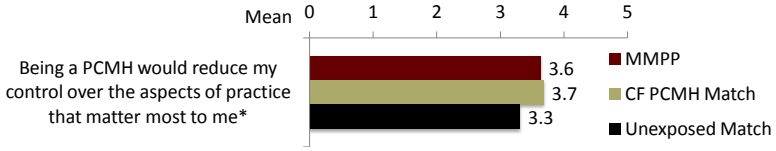
## Satisfaction and PCMH Perceptions




*P < 0.05

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## Summary:
## Baseline Provider Satisfaction Survey

- At MMPP practices, medical assistants and administrative staff more likely to take responsibility for some duties that clinicians take on in the comparison practices.
- MMPP providers tend to be more satisfied in their current job than the comparison practices.
- Bonus point: Providers in the MMPP group were more likely to feel their compensation plans rewarded hard workers and that the business office and administration are valued by the practice. [Individual items not shown in the slides]

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# OUTCOMES EVALUATION



## Patient Outcomes

- Data source: Maryland Medical Care Database (MCDB)
- Measures
  - Quality: asthma-related hospital admissions, adolescent well-being visits
  - Utilization: attributed PCP visits, specialty physician visits
  - Costs: outpatient payment, other cost
- Analysis methodology: difference-in-difference approach
  - Baseline: year 2010; Time 2: year 2011
  - *ΔMMPP-ΔCOMPARISON*
  - *Multivariate regression*

# Significant Impacts

| Outcome Measure | MMPP Sites | | Comparison Sites | | OR/Coef. | P-Value |
|---|---|---|---|---|---|---|
| | 2010 | 2011 | 2010 | 2011 | | |
| Asthma-related admission (< 40 years) | 0.2% | 0.03% | 0.2% | 0.2% | 0.019 | **0.011** |
| Adolescent Well Visits (count) | 0.46 | 0.45 | 0.57 | 0.53 | 0.033 | **0.011** |
| Adolescent Well Visits at Attributed Practice | 0.37 | 0.39 | 0.51 | 0.48 | 0.057 | **<0.001** |
| Attributed PCP Visits | 86% | 90% | 96% | 95% | 1.74 | **<0.001** |
| Specialty Office Visits | 3.34 | 3.27 | 3.46 | 3.47 | -0.11 | **<0.001** |
| Outpatient Payments | $1,974 | $2,068 | $1,951 | $2,162 | -$145.00 | **0.033** |
| Other Costs | $603 | $636 | $640 | $723 | -$55.90 | **0.018** |

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# Summary: Patient Outcomes

- MMPP practices/patients experienced:
  - Larger decrease in the proportion of young adults with a hospital admission due to asthma
  - Relative increase in the annual rates of well-care visits among adolescents
  - Increase in proportion of patients with one or more office visits to the attributed primary care physician
  - Decrease in the mean number of specialist office visits among patients with such visits
  - Relative decrease in the total outpatient payments
  - Relative decrease in the total other payments (not inpatient, outpatient, ED, office visits, home health, nursing home, hospice, radiology, and lab)
- The patients who maintained the PCMH affiliation in both years over time had higher gains.
- Suggests greater focus on primary care

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