Leveraging Health IT to Achieve Ambulatory Quality: The Patient-Centered Medical Home (PCMH)

The Healthcare Information and Management Systems Society (HIMSS) and the National Committee for Quality Assurance (NCQA) created this fact sheet for practices interested in becoming recognized patient-centered medical homes. NCQA worked with the four national organizations representing primary care physicians – the American Academy of Family Physicians, the American Academy of Pediatrics, the American College of Physicians and the American Osteopathic Association – and other stakeholders to develop a set of standards known as the Physician Practice Connections® – Patient-Centered Medical Home™ (PPC®-PCMH™).

NCQA, through the PPC®-PCMH™ program, identifies and recognizes medical practices that demonstrate the standards for patient-centered medical homes (PCMH). HIMSS focuses on the optimal use of information technology (IT) and management systems for the betterment of healthcare.

Health information technology (health IT) that supports high-quality patient care (including electronic recordkeeping, electronic disease registries, Internet communication with patients and electronic prescribing) is crucial to a fully functioning medical home.

This fact sheet provides an informational overview of PCMH from the healthcare practice viewpoint, highlights the beneficial use of health IT and how health IT helps practices in the function of PCMH.

What is a Patient-Centered Medical Home (PCMH)?

Patient-centered medical home (PCMH) is a model of care where patients have a direct relationship with a provider who coordinates a cooperative team of healthcare professionals, takes collective responsibility for the care provided to the patient and arranges for appropriate care with other qualified providers as needed.

Practices interested in being recognized patient-centered medical homes must consider that:

- Successful care coordination is a key aspect of the program; and
- Implementation, interoperability and cross-functional health information systems (including registries and information exchanges) help to support care coordination, as well as ensure appropriate and timely patient care.

What does the PPC® – PCMH™ measure?

NCQA has nine standards for medical homes. The standards and scores for each recognition level are available at www.ncqa.org. NCQA offers three levels of PPC-PCMH recognition. More than half of NCQA-recognized practices have achieved Level 3 status.

Level	Overall Points Required	"Must Pass" Requirements (at least 50% performance)
Level 1	25-49	5 of 10
Level 2	50-74	10 of 10
Level 3	75-100	10 of 10

PPC-PCMH Standards:

1. Access and communication
2. Patient tracking and registry functions
3. Care management
4. Self-management support
5. Electronic prescribing
6. Test tracking
7. Referral tracking
8. Performance reporting and improvement
9. Advanced electronic communications

Health IT that supports high quality patient care (including electronic record keeping, electronic disease registries, internet communication with patients and electronic prescribing) contributes to a fully functioning medical home. Practices in the early stages of transformation do not need electronic medical records to be recognized as Level 1 medical homes. However, to achieve scores enabling Level 2 or 3 recognition, e-prescribing, advanced electronic communications with members, and electronic care management support are recommended and rewarded.

How can health IT improve quality in healthcare delivery and help a practice achieve recognition as a PCMH?

Health IT can capture accurate information, while providing information to the clinician on outcome measures on a timely basis through reports. In turn, reports can be used to review trends among population groups, which may include visit frequency, medication dosage and treatment course changes, and to track patient progress and patient education. Health IT can expand performance improvement in all clinical activities by allowing practices to compare results among providers and practices.

What is the key value from becoming recognized as a PCMH?

By becoming a recognized PCMH, practices will improve patient care and position the practice to take advantage of private or public incentive payments that reward patient-centered medical homes.

What other benefits are there for my practice?

Other benefits of recognized PCMH practices include team building among providers and clinicians, as well as precise patient care documentation regarding PCMH policies and procedures that are in primary care practices.

What tips would you provide to others in preparing for and going through the application process?

To prepare for the recognized PCMH application, the practice providers must unite under the goal of improving care, both individually and as a team. Once that goal is accepted from the top down, the interested practice should document current policies and procedures and evaluate processes and procedures using PCMH criteria. Accordingly, the practice should review NCQA PPC™-PCMH® standards, research and resources available through state government. Establish an in-house facilitator dedicated to the PCMH application process, who will create a plan for implementing the standards. Other strategies that may help are conducting patient focus groups for feedback and having an open discussion with colleagues and providers to understand the challenges and the potential opportunities.

What funding and/or incentives are available for becoming a PCMH?

Provider groups and healthcare organizations can visit their federal, state government and private insurers' Web sites for information on possible funding and reimbursement resources.

Addendum: Case Examples

HIMSS solicited input from recognized PCMH practices to document their experience with health IT implementation and how it was leveraged in their journey to attain NCQA recognition.

Community Health Centers

Urban Health Plan, Inc. (UHP)

As a HIMSS Davies 2009 Davies Community Health Organization Award winner, Urban Health Plan (UHP) serves the South Bronx community in New York City. The residents of its service area suffer from significant economic challenges as well as from racial/ethnic health disparities. Most residents speak Spanish as a first language and many are linguistically isolated.

Mission: UHP's mission is to continuously improve the health status of underserved communities by providing affordable, comprehensive and high quality primary and specialty medical care and by assuring the performance and advancement of innovative best practices.

PPC®– PCMH™ Status: Level 3

Patient Demographics: Founded as a community health center in 1974 by a local physician, UHP has grown to become one of the largest providers of ambulatory care services in New York State. It is a federally qualified health center (FQHC) that offers a broad array of primary and preventive medical services, dental, mental health and specialty services to its patients.

Service Locations: UHP provides services in three traditional clinic sites: El Nuevo San Juan Health Center, Bella Vista Health Center and Plaza del Castillo Health Center. Moreover, UHP provides services to five school-based clinics, two homeless shelters, an adult day treatment center and a Boys & Girls Club.

1. **What motivated your organization to become a Patient Centered Medical Home?**

   NCQA and its PCMH standards and elements provided a framework to fine tune the good work we were already doing. We decided to apply to validate our work and approach to caring for our patients, such as using health educators and case managers to assist in managing our patients.

2. **What are the three key value points from becoming a PCMH?**

   1) Recognition of staff for the work that they do in coordinating patient care.
   2) Validation of our work.
   3) Potential for enhanced revenue.

3. **How has health IT enabled your organization to fulfill the requirements of the PCMH?**

   Our EHR provided the tool to consistently capture and easily report on many discrete items from the EHR, such as e-mail addresses, advance directives and body mass indices.

4. **How has healthcare quality improved in your organization and what role has health IT played? For instance, the ability to measure, monitor and trend?**

   Oversight via health IT has been the framework to allow us to capture the correct information at the right time. The ability to capture data at the point of care for our performance improvement teams was made possible through the integration of identified process and outcome measures into provider templates. Outcome measures are now monitored on a monthly basis by reports, rather than time-consuming chart reviews.

5. **What are your next steps, and how will health IT factor into your success?**

   Our next step is to enter the world of health information exchange as a pilot site for the Bronx Regional Health Information Organization, where we will both share and view data with the participating hospitals and ambulatory health care facilities in the Bronx.

6. **What tips would you provide to others in preparing for and going through the process?**

   If you do not have current, standardized policies and procedures documented, you need to do so — that is your first step, in addition to a thorough analysis of your work flows. Additionally, NCQA standards made us re-evaluate how we were capturing certain data, such as self management goals, and provided an opportunity to improve upon it.

Community Health Access Network (CHAN)

As a 2008 HIMSS Davies Community Health Organization Award winner, Community Health Access Network (CHAN) is the only Health Center Controlled Network (HCCN) in New Hampshire. Established in 1995, CHAN has developed and supports an integrated clinical and administrative system infrastructure.

Mission: As an integrated provider network, CHAN's primary mission is to enable the health centers to serve vulnerable populations and maintain a comprehensive range of healthcare services needed to assure the effective and efficient delivery of healthcare.

PPC®– PCMH™ Status: Level 3 – Lamprey Health Care, one community health center practice site within the CHAN network

Patient Demographics: CHAN provides primary care services to uninsured, underinsured and Medicaid populations.

Service Locations: CHAN is located in New Market, NH, and supports eight federally qualified health centers (FQHC) and three *Health Care for the Homeless* programs. Lamprey Health Care (LHC) serves as the administrative headquarters for CHAN.

1. **What motivated your organization to become a Patient Centered Medical Home?**

   When the opportunity arose to apply for the Patient Centered Medical Home (PCMH), the LHC board and senior management compared the goals and objectives with those in LHC's strategic plan. Through the comparison, the team discovered an overlap in the majority of strategic objectives, i.e., access, quality of care, efficiency and customer service. The PCMH model provided an opportunity to use a new tool to help meet LHC's strategic objectives. LHC, certified by The Joint Commission, has focused on quality measures in clinical practice. By implementing the PCMH standards, LHC would be the first medical home project in the state of New Hampshire. LHC continues to emphasize enhanced patient-focused care and safety.

2. **What are the three key value points from becoming a PCMH?**

   Enhanced patient-focused care, evidence-based practice and staff satisfaction. PCMH emphasizes preventive healthcare and disease management. Going through the process

of becoming recognized as a PCMH also assisted LHC in streamlining processes for patients to access healthcare. In addition, the process enables staff to become part of the solution, improving morale.

3. **How has health IT enabled your organization to fulfill the requirements of the PCMH?**

   It has given the organization the ability to run focused disease and preventive healthcare reports, track follow-up and automate workflow processes. The 10 years of patient data, automated through discrete data fields, has made the reports possible. Thankfully, CHAN's integrated services digital (ISDN) network has provided not only state-of-the-art clinical systems, but also experienced reporting staff to help with generating the information to apply for medical home.

4. **How has quality improved in your organization and what role has health IT played? For instance, the ability to measure, monitor and trend?**

   LHC is now able to run routine reports to review trends; all staff can have access to run reports at any point in time, which allows staff to own the data, process and workflows. Performance improvement has always been a focus of the organization, but as a result of PCMH, now it is part of all of the clinical activities and focuses on patient safety and risk management.

5. **What are your next steps, and how will health IT factor into your success?**

   LHC will focus on bringing a greater number and variety of patients into online access through our patient portal, allowing the patients to access their personal healthcare records and review our communications to them. Bringing more patients into online communication is also important for the practice to receive incentive payments under the new meaningful use provisions, so staff will be meeting objectives both for patient-centered medical home and for meaningful use. The portal has been used for a couple of years, for prescription refills and secure communication, with hearing impaired and diabetic patients. Now the portal will be expanded for the patient health record, and various other functions, such as appointment and referral requests.

6. **What tips would you provide to others in preparing for and going through the process?**

   LHC established an in-house facilitator/coach to follow Dartmouth Hitchcock Medical Center's clinical microsystems for process improvement mentor teams. This step has proved invaluable to help keep the process moving and help make sure all staff involved have a chance to participate. LHC used the Area Health Education Center (AHEC) for the function of the facilitator/coach and now the AHEC can help other health centers with the PCMH process. Administratively, the process of becoming a PCMH needs to be given dedicated time and staff. All members of the leadership team need to support the initiative.

Institute for Family Health (IFH)

As a 2007 HIMSS Davies Public Health Award winner, Institute for Family Health (IFH) is a federally qualified health center (FQHC) network dedicated to developing innovative ways to provide primary health services to underserved urban populations based on the family practice model of care. In 2002, the Institute became one of the first community health center networks in the nation to implement a fully-integrated electronic medical record and practice management system throughout its network of ambulatory clinical sites.

Mission: The Institute has devoted significant resources and time in workflow redesign to advance communitywide health improvements through its collaborative efforts with the New York City Department of Health and Mental Hygiene, one of the world's largest public health agencies. With approximately 6,000 employees and an annual budget of more than $1.5 billion, the Department's programs encompass areas of disease control, environmental health, epidemiology, healthcare access and improvement, health promotion and disease prevention, and mental hygiene, serving the more than 8 million New York City residents as well as more than 3 million others who work or visit the city each day.

PPC®– PCMH™ Status: Level 3 – Walton Family Practice (Neil Calman, MD and Andrew Gabler,MD) of the Institute for Family Health

Patient Demographics: The Institute operates 15 full-time practices, and eight part-time practices that provide care to the homeless. Several additional clinical programs serve special populations, such as four Ryan White HIV/AIDS programs and two free clinics that provide comprehensive primary care to the uninsured. Of the 34,000 patients served at the Institute's New York City sites, 75 percent are Black or Hispanic; 15 percent are uninsured; 40 percent receive Medicaid; 80 percent are below 200 percent of the federal poverty level; and 25 percent are estimated to require services in a language other than English. In 2006, more than 1,000 patients served were homeless and more than 600 had HIV/AIDS. Patients served by these centers suffer disproportionately from an array of health problems prevalent in low income urban areas, including high rates of asthma, diabetes, hypertension, obesity, depression, mental illness and substance abuse.

Service Locations: The Bronx, Manhattan and in the Mid-Hudson Valley.

1. **What motivated your organization to become a Patient Centered Medical Home?**

   The Institute saw the PCMH criteria as a way to define top performing primary care delivery systems. We looked at the criteria and felt that the vast majority of them were things we wanted and needed to be able to do effectively. We have as a corporate goal to take the lead in the development of the community health center model in its full implementation. We sought to be the first Level 3 PCMH community health center in New York State, and we did it!

2. **What are the three key value points from becoming a PCMH?**

   First, there is the recognition both internally and externally that you provide state-of-the-art primary healthcare. Second is the way the criteria force your delivery system to think about routes of communication between the various parts of the healthcare system. We know that those points of transition of patients and their information are dangerous opportunities for medical errors to occur. Third, we anticipate that the recognition will bring increased reimbursement at some time down the line and improving reimbursement is always a major goal.

3. **How has health IT enabled your organization to fulfill the requirements of the PCMH?**

   It is impossible to achieve Level 3 PCMH without a full-blown EHR in our opinion. The EHR gives the center the ability to close communication loops and identify patients in need of specific follow-up. In addition, the decision support capabilities of the EHR support achieving levels of performance that could otherwise not be achieved.

4. **How has quality improved in your organization and what role has health IT played? For instance, the ability to measure, monitor and trend?**

   All of the above. The most critical features of the EHR that help to bridge gaps in communication are the development of care plans for chronic conditions, the use of decision supports linked to order sets to reduce the rates of preventable disease and unnecessary ER use, and the means we are provided to enhance communication with our patients through our patient portal called “My Chart, My Health.”

5. **What are your next steps, and how will health IT factor into your success?**

   We have outlined more than a dozen developmental projects to use the EHR to enhance quality, improve doctor-patient communication, improve coordination of care, communicate with public health and reduce health disparities.

6. **What tips would you provide to others in preparing for and going through the process?**

   Just do it!

Primary Care Practices

Salvatore Volpe, MD, P.C.

Dr. Salvatore Volpe is board certified in Pediatrics, Internal Medicine and Geriatrics. The practice has approximately 1,500 active patients.

Mission: The practice has always been proud to provide the feeling of an "old-time" family practice (keeping track of personal details such as personal and children's achievements) while attempting to stay at the forefront of the practice of medicine and information technology.

Patient Demographics: Fifty percent of the practice's families (adult and adolescent patients) are government workers; 20 percent are Medicare beneficiaries; and the rest of the patients either work in the Wall Street area or for small, local businesses. Most of our patients with commercial insurance are enrolled in PPOs, while the Medicare patients are split between HMOs and conventional Medicare.

PPC®– PCMH™ Status: Level 3

Service Location: Staten Island, NY

1. **What motivated your organization to become a Patient Centered Medical Home (PCMH)?**

   The PCMH application process gave the practice an opportunity to step back and look at how it delivers care to our patients. The practice then used the NCQA criteria to expand upon its core activities.

2. **What are the three key value points from becoming a PCMH?**

   1) A tighter working relationship with our patients, their families and ancillary healthcare providers.
   2) A better understanding of the capabilities of our electronic health record system.
   3) An objective assessment of our practice, which would hopefully enable us to qualify for better reimbursement for the services that we provide.

3. **How has health IT enabled your organization to fulfill the requirements of the PCMH?**

   Health IT has helped to:
   - Improve communications between staff, staff and patients, and staff and outside providers (labs, imaging centers, subspecialists);
   - Advance documentation of services provided; and
   - Improve access to educational resources.

Southeast Texas Medical Association (SETMA)

Southeast Texas Medical Association (SETMA) is a multi-specialty clinic located in Beaumont. SETMA has three clinical locations that are connected with a secure electronic medical record (EMR) system to store and access patients' records. Patient records are also available to providers at area hospitals, so that during inpatient care, providers can make accurate decisions based on all of a patient's historical data. SETMA received the Davies Ambulatory Award in 2005.

Mission: Southeast Texas Medical Associates, LLP, was formed in 1995 by Drs. Holly and Wilson as a practice through which healthcare providers could provide quality, private healthcare to their patients in southeast Texas. SETMA is also intended to allow the practice to align activities with managed care to:

- Maintain the health of our patients;
- Maintain quality of life for our patients; and
- Do it in a cost-effective way.

PPC®– PCMH™ Status: Application submitted for Level 3 recognition.

Patient Demographics: SETMA employs 260 personnel and has a patient base of more than 80,000. In addition, through electronic means, SETMA provides management services to the critical care areas of two local hospitals, Golden Triangle Physicians Alliance (a physician-owned IPA), and Select Care of Texas (a federally approved PSO). SETMA's IT solution is integrated across the entire network, providing HIPAA-compliant access to patient data at all points of service including all emergency rooms, three hospitals, all clinical locations, all providers' residences and nursing homes.

Service Locations: Three clinic locations in Beaumont.

1. **What motivated your organization to become a Patient Centered Medical Home?**

   Even as the concept of PCMH became more and more mainstream, SETMA was as ignorant of what it meant as we were about managed care 13 years ago. After attending a PCMH lecture on Feb. 16, 2009, SETMA decided to take the same approach as we had with managed care. Over a one-month period, we did a thorough analysis of our practice based on CMS' 28 principles of PCMH. SETMA produced a 400-page analysis of our practice, in which we identified areas in our practice that reflected the ideals of PCMH, as well as the PCMH functions we were lacking.

   By March 2009, our judgment was that PCMH was a logical extension for our practice. SETMA published all of our electronic patient management tools on the SETMA Web

site, as well as publishing our public reporting of provider performance on quality measures.

2. What are the three key value points from becoming a PCMH?

1) Creating "intentionality" about quality, excellence, coordination and integration of our patients' health care rather than "coincidently" achieving parts of each. (For more on this concept see "Medical Home Part IV: Help and Hope in Health care" March 12, 2009 at www.setma.com under "Your Life Your Health.") In that article, it is stated:

> "The most innovative aspect of Medical Home and the thing which distinguishes it from any other well-organized and highly-functioning medical organization is the concept of 'Coordination of Care'. This is the intentional structuring, reviewing, facilitating and practicing of a standard of care which meets all current NCQA, CMS, NQF, PCPI, AQA, and HEDIS requirements for demonstration of excellence in the providing of care.
>
> The concept of 'intentionality' is critical in this process. This is contrasted with 'incidental.' In health care, most HEDIS compliance and coordination of care are done coincidental to a patient encounter, as opposed to having a purposeful, provable and persistent method of fulfilling of national standards of care. Rather than hoping the result is good, 'Coordination of Care' plans and reviews care to make certain that it meets the highest standards.
>
> The Medical Home intentionally fulfills the highest and best health care needs of all patients. In addition, patients are involved in this coordination by our making them aware of the standards and giving them a periodic review, in writing, of how their care is or is not meeting those standards. Patients are encouraged to learn and persue preventive care on their own.

2) Team – The challenge to create a healthcare team with the patient and all healthcare professionals. It is the realization that if the one in charge of a patient's healthcare is characterized as the one with the "baton," the patient has the baton for the majority of the time. (For more on this concept see "Passing the Baton: Effective Transitions in health care Delivery", March 10, 2010, on our Web site at www.setma.com under "Your Life Your Health.")

3) It is to discover the true implications of SETMA's motto, which we adopted in August 1995, that states, "Health Care Where Your Health is the Only Care." It is to put patients and their needs first. SETMA has done that in many ways. We developed The SETMA Foundation through which we help provide funding for the care of our patients who cannot afford it.

3. How has health IT enabled your organization to fulfill the requirements of the PCMH?

Without health IT, SETMA could not address the complex patient-care issues which are required by 21st century, technological healthcare, not to mention the complex needs of patients with multiple diseases. Health IT has allowed us to embed hundreds of quality metrics—both process and outcomes—into our EMR, making it "easier to do it right than not to do it at all." We daily and individually track all HEDIS measures on every patient. We participate in PQRI tracking for more quality metrics than those required. We measure Ambulatory Care Quality Alliance (AQA) standards. We track the Physician Consortium for Performance Improvement (PCPI) metrics for diabetes, hypertension, CHF, Chronic Stable Angina, Chronic Renal Diseases, etc. And, where no agency, or organization has endorsed quality measures, such as for Lipids and Chronic Renal Disease State I-III, SETMA wrote our own. We are able to look at patient populations by practice or provider to see longitudinally whether their treatment is to goal and to compare those who are not at goal with those who are. This allows us to see if patterns of care emerge that allow us to improve everyone's care. We are able to look at populations from socio-economic and ethnic perspectives to make sure we have eliminated disparities in care which traditionally afflict these groups.

4. **How has quality been transformed in your organization and what role has health IT played? For instance, the ability to measure, monitor and trend**?

Using digital dashboard technology, SETMA analyzes provider and practice performance in order to find patterns that can result in improved outcomes practice-wide for an entire population of patients. We analyze patient populations by:

- Provider panel
- Practice panel
- Financial Class – payor
- Ethic group
- Socio-economic groups

We are able to analyze if there are patterns to explain why one population or one patient is not to goal and others are. We can look at:

- Frequency of visits
- Frequency of testing
- Number of medications
- Change in treatment
- Education level
- Many other metrics

We are able to track over time patient results comparing:

- Provider to practice
- Provider to provider
- Provider current to provider over time
- Trending of results to see seasonal changes, etc.

5. **What are your next steps, and how will health IT factor into your success?**

We will add to our auditing ability. We will add functions to our patient care. We will participate in the transformation of healthcare and health IT, which in 10 years, will be different than it is now. For instance, with the human genome detailed and with more and more genetic foundations for disease being discovered, we believe that in 10 years or

less, it will be necessary to have medical informatics capabilities to store, analyze and use each patient's genome in their treatment. That is a huge database task for which we are already discussing and designing solutions. We will all get there one step at a time. At times we will lead the development and at other times we will follow the lead of others.

6. **What tips would you provide to others in preparing for and going through the process?**

   Get started! No matter how daunting the task, the key to success is to start. Compete with yourself, not others! Measure your success by your own advancement, and not by whether someone else is ahead or behind you. In the same way, share your success with others. In helping others succeed, you will find true fulfillment.

7. **In addition to the six questions above, if you have any additional materials, guidance and/or knowledge to share.**

   Our Web site has an 11-part series on PCMH. That series reflects our growth and development. Other materials there (under Your Life Your Health) show how we continue to learn and to grow. Under Medical Home at www.setma.com, we display the tools we have developed and will continue to post new tools that we develop. Under EPM, we display all of our electronic patient management tools. Under Public Reporting, we display our providers' performance on all of the quality measures we are following.

Resources:

- For more information about the NCQA PPC®-PCMH™ Program criteria and to download application and worksheets, please visit National Committee for Quality Assurance Web site.
- For a guide to apply and receive recognition as a PCMH go to Primary Care Development Organization Web site.
- For more information about the PCMH visit the Patient Centered Primary Care Collaborative Web site.
- For more information about the PCMH in New York City, visit the New York City Primary Care Information Project (PCIP).
- For more information and articles about the SETMA practice and PCMH visit www.setma.com .
- For more information about creating a PCMH, visit the following Web site: http://internet.dscc.uic.edu/medhome/start.asp .
- For more information about the HIMSS Davies Awards program, visit www.himss.org/davies.