

# healthcare design insights

## Is a Medical Home Where the Heart Is?

The term “Patient Centered Medical Home” (PCMH) isn’t really about home, or even about place at all. It’s about a process of healthcare delivery—yet the process can have significant implications for facilities. PCMH is increasing today as healthcare organizations seek ways to improve care, reduce re-admissions, and reduce costs, creating a new paradigm for health care designers, operators and builders.

PCMH is about providing healthcare in a more personal and managed way. Primary and preventative care are provided by a care team: a dedicated physician and a nurse practitioner or mid-level provider who oversee all aspects of patient care, all with a highly individualized approach. The care team is aided by an enhanced team of onsite specialists,

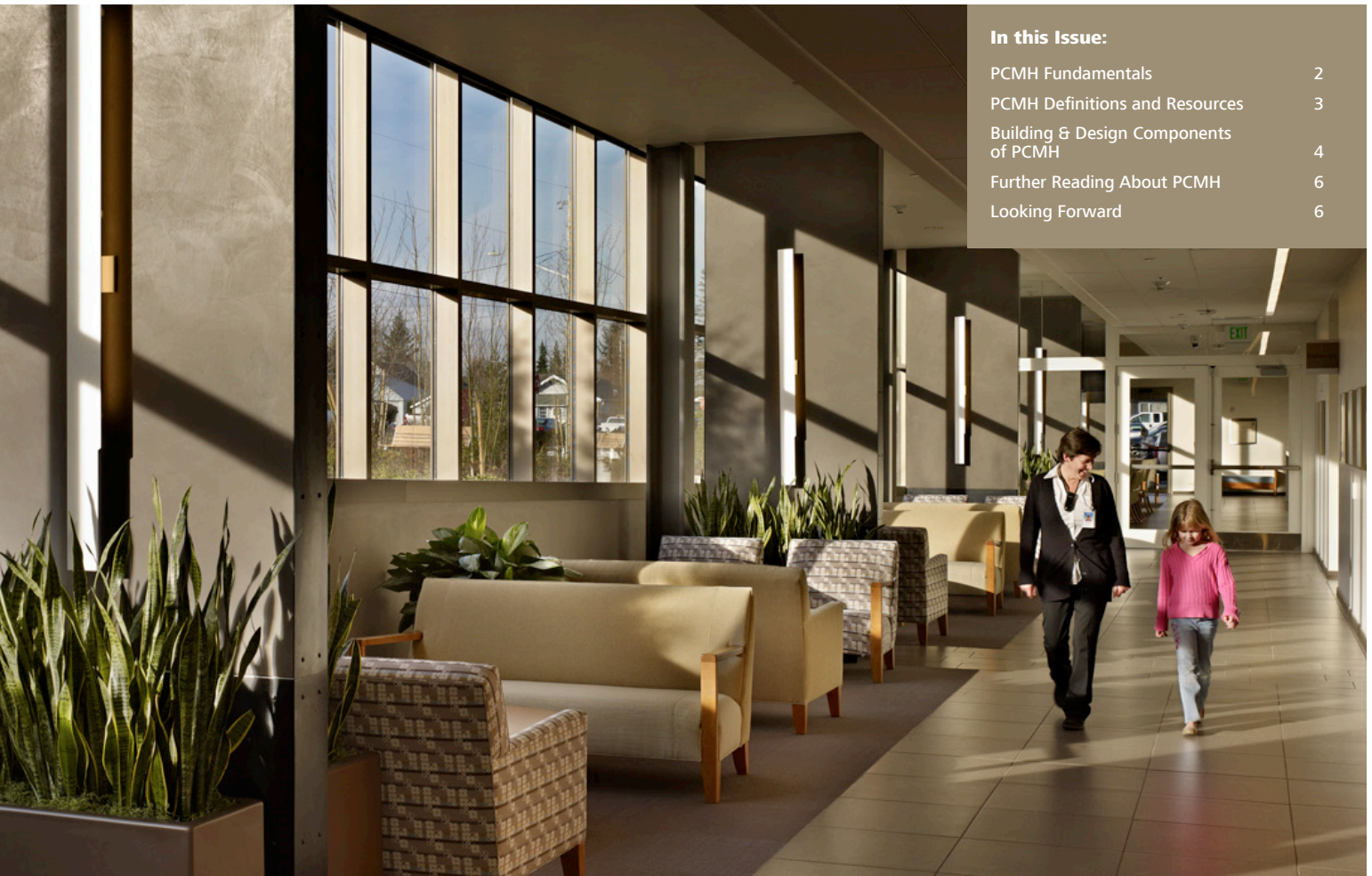
complimentary medicine, and a robust electronic medical records system. Specialist referrals are made by the care manager. The PCMH may be within a hospital, a freestanding clinic, or specialty center.

Some of the core concepts of PCMH have been around for decades, and variations of the concept have been adopted on a pilot or formal basis by numerous medical groups across the country. It is at the heart of the current PCMH healthcare reform effort, and is advanced by the Patient Protection and Affordable Care Act, the core Federal legislation passed in 2010. The legislation authorizes the Department of Health and Human Services to fund, test, and analyze innovative service and delivery models, of which PCMH is at the forefront.

Much has been written about PCMH in terms of medical practices, patient care, and financial benefits, but comparatively little has been written about the facility component.

With this issue we seek to:

- :: Define the key terms, origins, and practice components of PCMH.
- :: Illustrate how the delivery method shapes the functional program and physical layout of clinical facilities.
- :: Outline a roadmap for facilities personnel and designers considering the architectural impacts and way forward for PCMH in their organizations.



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## PCMH Fundamentals

Originally conceived in the 1960's as an approach for children with special needs, PCMH encourages greater access to primary care delivery, deeper communication in healthcare settings (including facilitating decision making with the patient and family), and broadening and fostering collaboration beyond the doctor to an expanded care team of medical and wellness specialists.

**PCMH's emphasize a personalized, comfortable (not "clinical") healthcare setting**, with more communication and expanded access to medical providers and information, all in a more caring environment. Studies note that as many as 50% of patients do not understand their medical diagnosis because their doctor visits were too short, and core to PCMH is greater patient understanding and involvement in their well-being and health.

**PCMH's reinforce and broaden the definition and power of primary, preventative care**, without relying on "just" a traditional primary care doctor. Access to primary care has eroded for Americans, due to fewer medical school graduates choosing primary care (the average primary care physician earns 55% as much as the average specialist, driving many medical school students into specialties), and a reimbursement model based mostly on fee-for-service and pay-for-performance rather than overall outcomes. Over 65 million Americans live in areas underserved by primary care even if they have the ability to pay. A PCMH offers easier access to an expanded range of services, from clinical specialists to complimentary medicine practitioners, all working together and creating a primary care "web."

**PCMH's leverage patient data for both increased patient understanding and proactive care by the professional care team.** Extensive access to Electronic Health Records (EHRs)—both at the PCMH and the patient's home—offers the opportunity for patients to better understand their own health records and then affect their



own activities, for example a chronic disease patient accessing current and past test records. EHR data also allows health providers to more effectively provide proactive care, particularly for those with chronic conditions, such as a nurse practitioner calling a diabetes patient at home—or checking when that patient is at the PCMH for another condition—that it is time for tests. (Note: A future issue of *Healthcare Design Insights* will examine in detail the impacts of EHR across a wide spectrum of medical delivery models.)

Building on this focus on EHRs, **PCMH's reduce the costs and increase the success of chronic disease care** (e.g. diabetes, heart conditions) by providing a center where patient access to information, ongoing testing, medication management, and monitoring are all much more accessible, and in many cases proactive, via leadership by the care team model. Studies show that less than 60% of patients with chronic conditions follow the specific recommendations of testing and follow-up care.

In all this, **PCMH's reduce healthcare costs by identifying and treating medical issues before they become more complex and expensive.** Over a two year pilot study at their Factoria Medical Center near Seattle, Group Health Cooperative realized 29% fewer emergency room visits, 6% fewer hospitalizations, and savings of \$10 per patient per month. Patients with chronic conditions managed them more successfully, and followed medical directions better with the aid of a care team. For every dollar invested, GHC determined it recouped \$1.50.

In fact, it is hard to discuss PCMH without also addressing challenges with healthcare payment and reimbursement, and many PCMH proponents note that long-term success will best come with aligning insurance reimbursement with healthcare organizations' ability or success in reducing costs through preventative care, for example avoiding unnecessary emergency department visits or hospital admissions.



## PCMH Definitions & Resources

**“Joint Principles of the Patient Centered Medical Home”** is the generally accepted definition and baseline for PCMH. Jointly developed in 2007 by four key medical professional organizations (The American Academy of Pediatrics, American Academy of Family Physicians, American College of Physicians and American Osteopathic Association), the principles are organized and developed around the concepts of a personal physician, team practice, coordinated care, use of health IT and analytical tools, expanded access to health practitioners, and effective use of financial incentives.

Building from these fundamental principles, the National Committee for Quality Assurance (NCQA), a not-for-profit accreditation and rating organization of health providers and insurers, created the **Patient Centered Medical Home standards**, which have become the

widely adopted baseline. By the end of 2010, 7,600 clinicians and 1,500 practices nationwide had earned PCMH recognition. **The Joint Commission** may also consider accreditation of PCMH facilities in the future.

**A health policy brief from the Robert Wood Johnson Foundation publication Health Affairs**, provides an excellent in-depth introduction to PCMH, the results of recent case studies, and analysis of future adoption. The article includes charts summarizing the “Joint Principles” foundations and NCQA standards, as well as a bibliography with further sources.

What’s less known today is the affect of PCMH on hospitals. Will greater adoption of PCMH reduce hospital stays and emergency room visits, and/or will it reduce work for specialists? Certainly the focus on EHR data and greater linkage, coordination, and collaboration with medical specialists

brings PCMH focused clinics and hospitals closer together. One frequently commented trend of PCMH is the further melding of primary care organizations and hospitals, either through close working relationships, formal mergers and acquisitions, or expanded services by hospitals.

Whatever the business model, the physical, facility affect of these changes is hard to forecast today. Will hospitals have more primary care areas? Will primary care facilities have broader surgery facilities? Of particular interest to hospitals and major medical organizations, **a report from the American Hospital Association Committee** is a primer on the current and potential effect of PCMH for hospitals, analyzing the affect for hospital practices, and discussing Federal, state, and private sector programs.

## Building & Design Components of PCMH

PCMH philosophy and delivery are core to several current Mahlum projects, including the Peace Island Medical Center on San Juan Island, Washington, free-standing emergency departments for Swedish Medical Center in Mill Creek and Redmond, Washington, and ambulatory care facilities for Providence Sacred Heart Medical Center in Spokane, Washington.

### DESIGN COMPONENT 1:

#### Physical Home

##### Practice Philosophy:

Increased dialogue between provider and patient is key to PCMH. Creating that physical “home,” one that shows the figurative if not literal heartbeat and offers a calm and patient-focused (not clinician-focused) space, encourages this communication and understanding.

##### Facility Design:

Provide comfortable consultation and exam rooms, perhaps larger than “typical,” with capacity for multiple patient acuity levels.

Separate patient and staff circulation insulates patients from the hubbub of clinical activity.

A private, multipurpose room for family education, consultation, and wellness training.

Multiple sized office areas for clinicians to encourage engagement in consultation, training and case management.

Through that work and additional research, we’ve created a list of fundamental concepts of PCMH that drive facility design, each suggesting specific systems, spaces or materials.

The following pages highlight six design components that affect the design of a PCMH facility. The characteristics of each,

and how they impact providers and patients, are described. We touch upon the physical impacts to building infrastructure required to support the component.

We present these as a tool for designers and administrators to bring PCMH concepts up to the surface of facility design, and illustrate some of the key impacts.



**At Swedish Mill Creek Emergency and Specialty Center, the typical waiting room has been replaced by a daylit hallway with seating and views of the healing garden. This informal area of respite for families who accompany patients provides both privacy and stress reduction. Dedicated staff circulation is located on the interior of the building.**

### DESIGN COMPONENT 2:

#### Broader Variety of Specialists

##### Practice Philosophy:

A PCMH offers a broader variety of specialists and care in a single clinic. Some PCMH clinics are led by Nurse Practitioners; in general the role of the Primary MD is leveraged with a variety of experts, including some of the following:

Dietician

Doctor of Chiropractic Medicine

Licensed Complementary and Alternative Practitioners (e.g. Massage, Physical Therapist)

Mental Health Provider

Nurse Practitioner

Nutritionist

Patient Educator

Pharmacist

Physician Assistant

Social Worker

In addition to housing these varied specialists with space for interaction with patients, knowledge sharing, collaborative diagnosis, and joint decision making by the care team are supported with dedicated office and meeting areas.

##### Facility Design:

More “office” spaces are required for this broader staff. Much of this can be in large, shared, or “hoteled” with individual spaces scheduled for certain specialists.

More conference rooms, including flexible meeting spaces, with access to EHR and digital protection.

Video-conferencing capability.

In some cases, proximity between medical specialists, e.g. doctor and nurse, to encourage collaboration and interaction.

Each patient contact begins with a visit to a “talking room” at Southcentral Foundation in Wasilla, Alaska, where information can be exchanged in an informal, private setting without occupying expensive clinic space.



**DESIGN COMPONENT 3:**

**Flexible Configuration**

**Practice Philosophy:**

As PCMH models grow and providers innovate within an evolving market, and with innovation encouraged at the Federal level, flexibility of configuration and multi-use of individual spaces is important, particularly for “test” or “pilot” projects.

**Facility Design:**

More undefined informal spaces, or square footage devoted to prototyping and testing delivery sequence or process.

**DESIGN COMPONENT 6:**

**Patient and Clinical Data**

**Practice Philosophy:**

Leveraging a wide range of individual patient and clinical data is fundamental to PCMH, requiring infrastructure and hardware for extensive use by both patients and staff.

**Facility Design:**

EHR widely available to staff via both wall mounted and mobile wireless points.  
Computers for patient data-viewing.  
Dedicated IT rooms.  
Self-testing rooms, for patient access to specialized diagnostic equipment.

**DESIGN COMPONENT 4:**

**Proactive Encouragement**

**Practice Philosophy:**

Proactive encouragement of healthy lifestyles, and drawing those activities into PCMH, are characteristics of the practices with significant complimentary care components.

**Facility Design:**

Dedicated areas for physical activity, such as exercise, physical therapy, and massage.

**DESIGN COMPONENT 5:**

**Patient Education**

**Practice Philosophy:**

Building on a base of more personal and private patient communication, patient education, including one-on-one instruction, internet based research and reading, tele-medicine, and small group instruction are key to increasing patient knowledge, wellness and preventative care.

**Facility Design:**

Access to public computers.  
Small “seminar” rooms.



Encouraging healthy lifestyles for both patients and staff is an integral goal of a medical home. When both clinicians and patients exercise in the same gym, they inspire each other and build strong, personal bonds.



## Further Reading About PCMH

### Introducing the Electronic Future *HealthCare Design*, June 2010

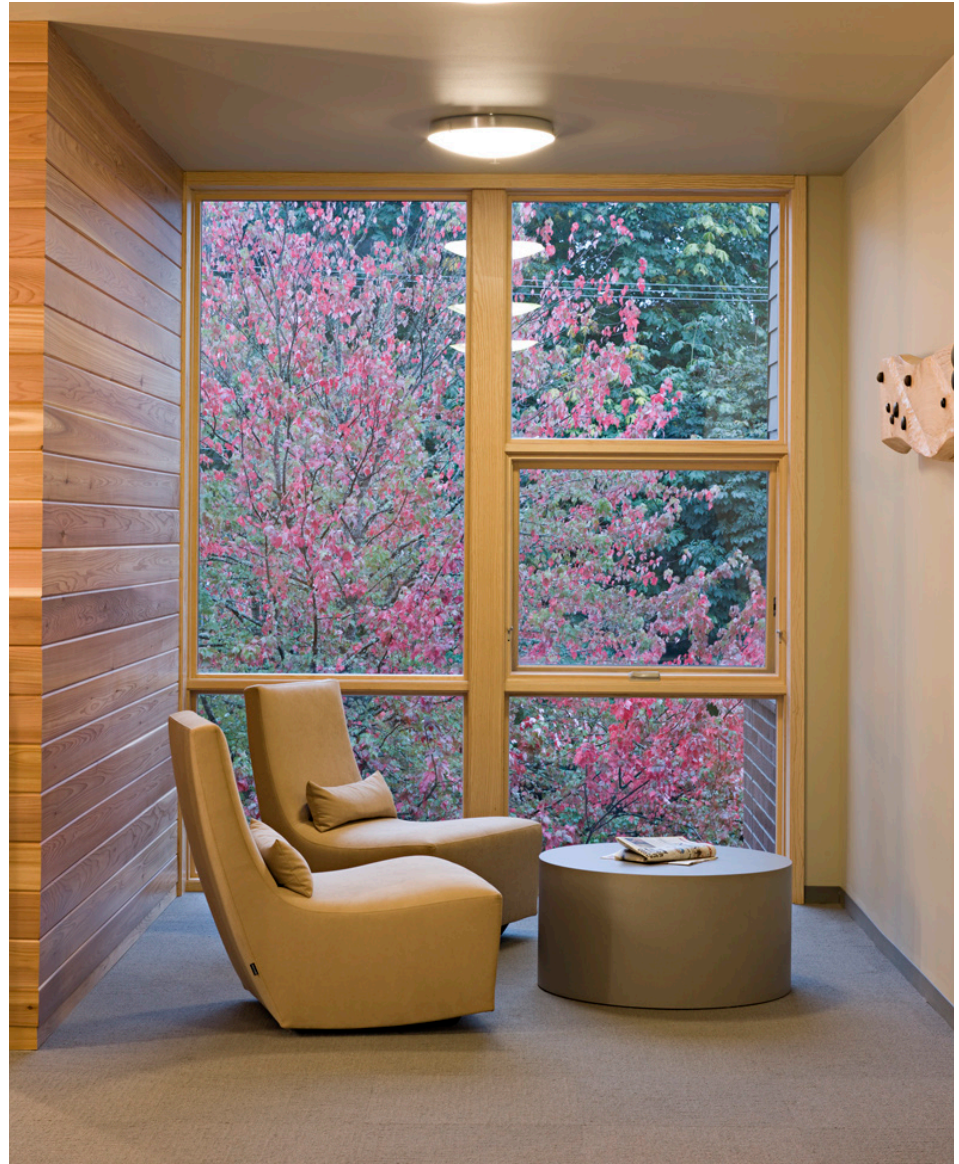
Life Connections Health Center  
San Jose, California

This 24,000 square foot ambulatory care facility, located at Cisco corporate headquarters, illustrates some of the practice and patient-centric fundamentals of PCMH, with a particular focus—this is Cisco, the technology giant—on the use of technology to enhance information access and medical team collaboration. This article from *HealthCare Design* includes interviews with the design and owner team, photographs and a plan.

### Building the Ambulatory Practice of the Future November 2005

Massachusetts General Physicians Organization; Massachusetts General Hospital; Center for Integration of Medicine and Innovative Technology (Ideo)

This publication focuses on “comprehensive, proactive population management, and empowering patients to engage in their care.” Written primarily for healthcare providers, it illustrates changes to both activities and the built environment of ambulatory care practices. The report is organized around “paradigm shifts” that are basically synonymous with PCMH, and provides some excellent depth in ideas and practices beyond the components of PCMH.



Redesigning the clinical environment includes the creation of areas of respite, offering visual connections to nature and opportunities to decompress.

## Looking Forward

An interesting theme is developing for practitioners and those creating physical spaces for PCMH practices. As practice patterns evolve, the traditional clinical environment is being reconsidered.

“Becoming a medical home has given us an opportunity to redesign our workplace, so physicians are working on physician things,” notes Maureen Warner, registered nurse and

director of clinical services and education at Montefiore Medical center in the Bronx, in a *Modern Healthcare* November 29, 2010 article.

This is an energizing thought for healthcare architects and all those working to institute PCMH: the opportunity to rethink process and location, for enhanced patient care, staff success, and improved outcomes.

**Healthcare Design Insights**, produced by Mahlum, furthers evidence-based design, offering practical tools and ideas to healthcare administrators, facility managers, and developers. We welcome your feedback and ideas for future issues!

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