

# The Patient Centered Medical Home Implementation and Integration in an EMR

Carilion Clinic

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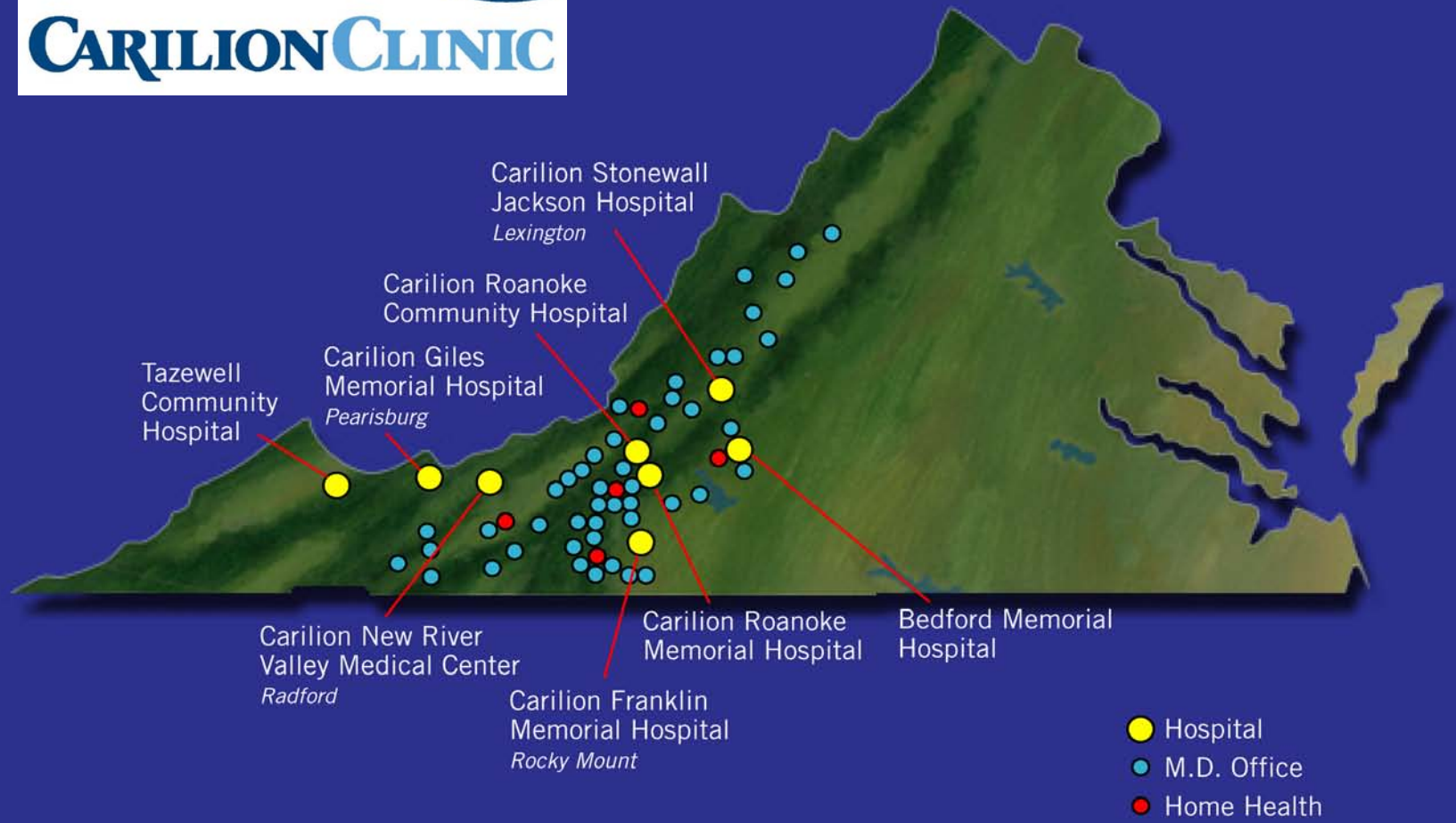


**CARILIONCLINIC**



# About Carilion Clinic

- 7 Hospitals
- 152 Physician Practices
- 600 Physicians
  - 60 Specialties
- 1 Million Patients
- 863,000 Primary Care Visits Yearly
- 12,000 Employees
- Medical Education
  - 9 Residency Programs
  - 6 Fellowship Programs
  - 170 Residents and Fellows, 42 Medical Students



# Background of the Medical Home Concept

- The American Academy of Pediatrics (AAP) 1967
  - Central location for archiving a child's medical record.
- AAP 2002 policy statement expands definition
  - Accessible, continuous, comprehensive, family-centered, coordinated, compassionate, and culturally effective care
- The American Academy of Family Physicians (AAFP) 2004
  - Describes "Medical Home"
- The American College of Physicians (ACP) 2006
  - Describes "advanced medical home"
- NCQA January 2, 2008 standards developed for:
  - Physician Practice Connections Patient Centered Medical Home (PPCCMH).
  - Program builds upon NCQA's current Physician Practice Connections program
  - Identifies primary care practices that function as patient-centered medical homes.



# What is a Patient Centered Medical Home

- A patient-centered medical home integrates patients as active participants in their own health and well-being. Patients are cared for by a physician who leads the medical team that coordinates all aspects of preventive, acute and chronic needs of patients using the best available evidence and **appropriate technology**. These relationships offer patients comfort, convenience, and optimal health throughout their lifetimes.

American Academy of Family Practice 2008

# What is a Patient Centered Medical Home

- The Patient Centered Medical Home is a health care setting that facilitates partnerships between individual patients, and their personal physicians, and when appropriate, the patient's family. **Care is facilitated by registries, information technology, health information exchange** and other means to assure that patients get the indicated care when and where they need and want it in a culturally and linguistically appropriate manner.
- A medical home also emphasizes enhanced care through open scheduling, expanded hours and communication between patients, physicians and staff.

PPC- PCMH (NCQA) - 2008

# Why PCMH?

- Patient Centric
  - involvement care
- Improved Patient Care
  - Clinical outcomes
  - Enhanced access
- Clinical Excellence
- Coordination of care
  - Improved communication
- Provider and Staff Satisfaction
  - Physician directed
  - Shared clinical care – collectively responsible teams
- Patient Satisfaction
- Clinic Model
  - Collaboration with specialty care.
- Reduction of Avoidable Costs
  - Payor Models
    - ACO
    - Shared Risk
    - [Payors working with PCMH](#)

## The TransforMED Patient-Centered Model A Medical Home for All



**A continuous relationship with a personal physician coordinating care for both wellness and illness**

- Mindful clinician-patient communication: *trust, respect, shared decision-making*
  - Patient engagement
  - Provider/patient partnership
  - Culturally sensitive care
  - Continuous relationship
  - Whole person care

### Access to Care and Information

- Health care for all
- Same-day appointments
- After-hours access coverage
- Accessible patient and lab information
- Online patient services
- Electronic visits
- Group visits

### Practice-Based Services

- Comprehensive care for both acute & chronic conditions
- Prevention screening and services
- Surgical procedures
- Ancillary therapeutic and support services
- Ancillary diagnostic services

### Care Management

- Population management
- Wellness promotion
- Disease prevention
- Chronic disease management
- Patient engagement and education
- Leverages automated technologies

### Care Coordination

- Community-based resources
- Collaborative relationships
  - Emergency Room
  - Hospital care
  - Behavioral health care
  - Maternity care
  - Specialist care
  - Pharmacy
  - Physical Therapy
  - Case Management
- Care Transition

### Practice-Based Care Team

- Provider leadership
- Shared mission and vision
- Effective communication
- Task designation by skill set
- Nurse Practitioner / Physician Assistant
- Patient participation
- Family involvement options

### Practice Management

- Disciplined financial management
- Cost-Benefit decision-making
- Revenue enhancement
- Optimized coding & billing
- Personnel/HR management
- Facilities management
- Optimized office design/redesign
- Change management

### Health Information Technology

- Electronic medical record
- Electronic orders and reporting
- Electronic prescribing
- Evidence-based decision support
- Population management registry
- Practice Web site
- Patient portal

### Quality and Safety

- Evidence-based best practices
- Medication management
- Patient satisfaction feedback
- Clinical outcomes analysis
- Quality improvement
- Risk management
- Regulatory compliance

# What does PPC-PCMH measure?

## Among the aspects of care measured by PPC-PCMH:

1. Access and Communication
  2. Patient Tracking and Registry Functions
  3. Care Management
  4. Patient Self-Management Support
  5. Electronic Prescribing
  6. Test Tracking
  7. Referral Tracking
  8. Performance Reporting and Improvement
  9. Advanced Electronic Communications
- 9 PPC standards, including 10 must pass elements

NCQA PPC-PMH



# PPC-PCMH Content and Scoring

<p>Standard 1: Access and Communication</p> <p><b>A. Has written standards for patient access and patient communication**</b></p> <p><b>B. Uses data to show it meets its standards for patient access and communication**</b></p>	<p>Pts</p> <p><b>4</b></p> <p><b>5</b></p> <p>9</p>	<p>Standard 5: Electronic Prescribing</p> <p>A. Uses electronic system to write prescriptions</p> <p>B. Has electronic prescription writer with safety checks</p> <p>C. Has electronic prescription writer with cost checks</p>	<p>Pts</p> <p>3</p> <p>3</p> <p>2</p> <p>8</p>
<p>Standard 2: Patient Tracking and Registry Functions</p> <p>A. Uses data system for basic patient information (mostly non-clinical data)</p> <p>B. Has clinical data system with clinical data in searchable data fields</p> <p>C. Uses the clinical data system</p> <p><b>D. Uses paper or electronic-based charting tools to organize clinical information**</b></p> <p><b>E. Uses data to identify important diagnoses and conditions in practice**</b></p> <p>F. Generates lists of patients and reminds patients and clinicians of services needed (population management)</p>	<p>Pts</p> <p>2</p> <p>3</p> <p>3</p> <p><b>6</b></p> <p><b>4</b></p> <p>3</p> <p>21</p>	<p>Standard 6: Test Tracking</p> <p><b>A. Tracks tests and identifies abnormal results systematically**</b></p> <p>B. Uses electronic systems to order and retrieve tests and flag duplicate tests</p>	<p>Pts</p> <p><b>7</b></p> <p>6</p> <p>13</p>
<p>Standard 3: Care Management</p> <p><b>A. Adopts and implements evidence-based guidelines for three conditions **</b></p> <p>B. Generates reminders about preventive services for clinicians</p> <p>C. Uses non-physician staff to manage patient care</p> <p>D. Conducts care management, including care plans, assessing progress, addressing barriers</p> <p>E. Coordinates care//follow-up for patients who receive care in inpatient and outpatient facilities</p>	<p>Pts</p> <p><b>3</b></p> <p>4</p> <p>3</p> <p>5</p> <p>5</p> <p>20</p>	<p>Standard 7: Referral Tracking</p> <p><b>A. Tracks referrals using paper-based or electronic system**</b></p>	<p>PT</p> <p><b>4</b></p> <p>4</p>
<p>Standard 4: Patient Self-Management Support</p> <p>A. Assesses language preference and other communication barriers</p> <p><b>B. Actively supports patient self-management**</b></p>	<p>Pts</p> <p>2</p> <p><b>4</b></p> <p>6</p>	<p>Standard 8: Performance Reporting and Improvement</p> <p><b>A. Measures clinical and/or service performance by physician or across the practice**</b></p> <p>B. Survey of patients' care experience</p> <p><b>C. Reports performance across the practice or by physician **</b></p> <p>D. Sets goals and takes action to improve performance</p> <p>E. Produces reports using standardized measures</p> <p>F. Transmits reports with standardized measures electronically to external entities</p>	<p>Pts</p> <p><b>3</b></p> <p>3</p> <p><b>3</b></p> <p>3</p> <p>2</p> <p>1</p> <p>15</p>
		<p>Standard 9: Advanced Electronic Communications</p> <p>A. Availability of Interactive Website</p> <p>B. Electronic Patient Identification</p> <p>C. Electronic Care Management Support</p>	<p>Pts</p> <p>1</p> <p>2</p> <p>1</p> <p>4</p>

**\*\* Must Pass Elements**

# Preparation for Implementation

- Organization of the implementation team
- Timeline
- Data collection and reporting
- Guideline development - [Clinical Guidelines](#)
- Development of Ambulatory Tools
- Development of Intranet site for provider and staff education
- Care coordinators
- Protocols and policies developed
  - Access, tracking, clinical reporting, documentation etc...

# Implementation Strategy- High Level

- Pilot site
- Regional roll out
  - Based on length of time on EMR
  - MAP
- Education plan
  - 2-3 months for prep
- Hiring care coordinators
- 6 month data collection
- Submission to NCQA

# Implementation Team and Oversight

- Collaboration between IT and Primary Care (FP, IM, Peds)
- Led by quality improvement manager
  - Physician Lead
  - MLP Lead
- Dedicated IT resources
  - Ambulatory EMR
  - reporting
- Oversight
  - Department of Primary Care and Regional Medicine
    - Primary Care Executive Committee
    - Primary Care Quality Committee

# Timeline- first site

- NCQA parameters identified for reporting
- Policies and procedures developed
- Pilot site identified
- Reports developed for data capture
  - Based on NCQA requirements
- Initial Clinically relevant disease states
  - DM
  - Asthma
  - Hypertension
- 6 month build and testing
- 6 month data collection prior to NCQA submission

# Timeline – subsequent sites

- Implementation team meets with providers and staff.
  - Role changes
  - Documentation and reporting requirements
  - Review protocols and policies
  - 2-3 months
- Close collaboration with site managers.
- Data collection
  - minimum of 3 months.
  - Reviewed prior to submission
- Care Coordinator
  - Hiring and training

# EMR

## Tool Development

- Standardized documentation templates for visits
  - Office Visits
  - Care Coordination Visits and Phone calls.
  - Patient Education Assessment
- Patient Registries
  - Use of Care Coordinators in managing the data
- Incorporation of guidelines into EMR
  - Hyperlinks
  - Intranet
- Decision support
  - Alerts for accuracy of diagnosis
  - Reminders development to support Carilion Clinic guidelines

# EMR

## Tool Development

- Standardized Patient Education Materials
- Individualized care plans
- After visit summaries
- Patient Portal tools [My Chart](#)
  - Preventive and Disease reminder display
  - Education for patients
  - Flow sheet development
- Intranet Site [PCMH](#)
  - Guidelines
  - Tools and resources
- Customized clinical schedule
  - Based on registry information
  - Needed for morning “huddle”

# Patient Tracking and Registry Functions

- Uses data system for basic patient information (mostly non-clinical data)
- Has clinical data system with clinical data in searchable data fields
- Uses paper or electronic-based charting tools to organize clinical information
- Uses data to identify important diagnoses and conditions in practice
- Generates lists of patients and reminds patients and clinicians of services needed (population management)

# Registries

- Report available within EMR
- Shared patient lists
- Columns customized
  - Shared list
  - Schedule
- Sorting capability
- Removing and adding patients from list
  - Manual process

# Care Coordinators

- 1:4 physician ratio
- RN or LPN
- Job description
  - Population Management
    - Health maintenance care
    - Chronic disease care
    - Runs and updates registries
    - Sets up information for daily huddle
  - Transitions in Care
    - Follow up on ED and Hospital admissions
    - Close ties with IP Care Mangers
  - Patient teaching
    - Collaborative or separate visit
  - Resource Connection



# Reports

- Patient portal TAT
- Telephone encounter TAT
- Provider/care team continuity
- Multiple Clinical reports
  - DM, Asthma, HTN, BMI, Vaccine rates, mammography
- Referral and procedure tracking for follow up and completion
- Hospital and ED discharge report

# A Successful Beginning

- Outcomes
  - Improved patient satisfaction
  - Improved quality of care metrics
  - Physician satisfaction
  - Staff satisfaction
- Research
  - Multiple projects in collaboration with Virginia Tech
- State and National Recognition

# PCMH @ Carilion Clinic

As of October 25, 2010

- 6 sites certified as a level 3 NCQA medical home
  - 1<sup>st</sup> Level 3 in the Commonwealth of Virginia
- 5 sites submitted for Level 3
- 6 under development for January 2011 submission.
- 6 to be submitted July 2011
- Goal is to have 19- 20 sites live by the end of 2011
  - Approximately 200,000 patients

# Challenges

- Culture shift for the organization / offices
- Standardization
  - Workflows, guidelines
- Hiring Care Coordinators
- Patient Portal Use
- Development of reports
- Communication / education
- Tight timeline

# Future Plans

- Coordinated scheduling for inpatient discharged patients
- Increase and improved registry data
- Now have 6 clinically relevant conditions
  - CHF
  - HTN
  - COPD
  - DM
  - Asthma
  - Hyperlipidemia
- Incorporating Meaningful Use within PCMH structure and guidelines
- Reviewing 2011 NCQA guideline changes.

# The Carilion Clinic PCMH Team

John Wendland- Project Manager

Collette Carver, FNP- MLP Lead

Peyton Taliaferro, MD Physician Lead

Phillip Whitescarver –IT Lead

Doug Anderson – Reporting Lead

Ursula Lee- Ambulatory Manager



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## Health Plans Using Recognition

### Health Plans Are Using Recognition to Improve Quality

#### Programs

[Accreditation](#)
[Certification](#)
[Recognition](#)
[Multicultural Health Care](#)
[Distinction](#)
[Special Needs Plans](#)
[HEDIS & Quality](#)
[Measurement](#)
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Recognition Programs provide plans with many ways to improve care.

Add Recognition seals to provider directories and identify top quality physicians.

- Aetna
- Blue Cross Blue Shield Association
- BlueCross BlueShield of Western New York
- BlueShield of Northeastern New York
- CIGNA
- CDPHP
- GeoAccess
- Highmark Blue Cross Blue Shield
- Humana
- Medical Mutual (Ohio)
- MVP Health Plan, Inc.
- United

Help physicians become Recognized by supporting data collection efforts

- Blue Care Network (Michigan)
- Highmark Blue Cross Blue Shield
- MVP Health Plan (New York)
- Oxford (New York)
- United (4 areas)

Pay rewards for achieving Recognition or supplement application fees for Recognized providers

- Anthem (Virginia)
- Bridges to Excellence
- Blue Cross Blue Shield of South Carolina/Companion
- CareFirst (DC-Maryland and Georgia)
- CDPHP
- ConnectiCare
- HealthAmerica (Pennsylvania)
- Health First (Florida)
- Highmark Blue Cross Blue Shield
- Independence Blue Cross
- MVP Health Plan (New York)
- Oxford (New York)
- Priority Health
- Silicon Valley HIT

Use Recognition as a requirement for entry into high-performance networks

- Aetna
- CIGNA
- United

*Note: This is a partial list of health plans that use data from the NCQA Recognition Programs and is not meant to be comprehensive.*



### Stay In Touch with Carilion

- Become a Facebook fan
- Watch us on YouTube
- Follow us on Twitter

Home > Patient & Visitor Information > MyChart

## MyChart

### Your Health is Now Interactive

Carilion Clinic is now offering MyChart, Southwest Virginia's first online healthcare management tool, in various primary care medicine practices.

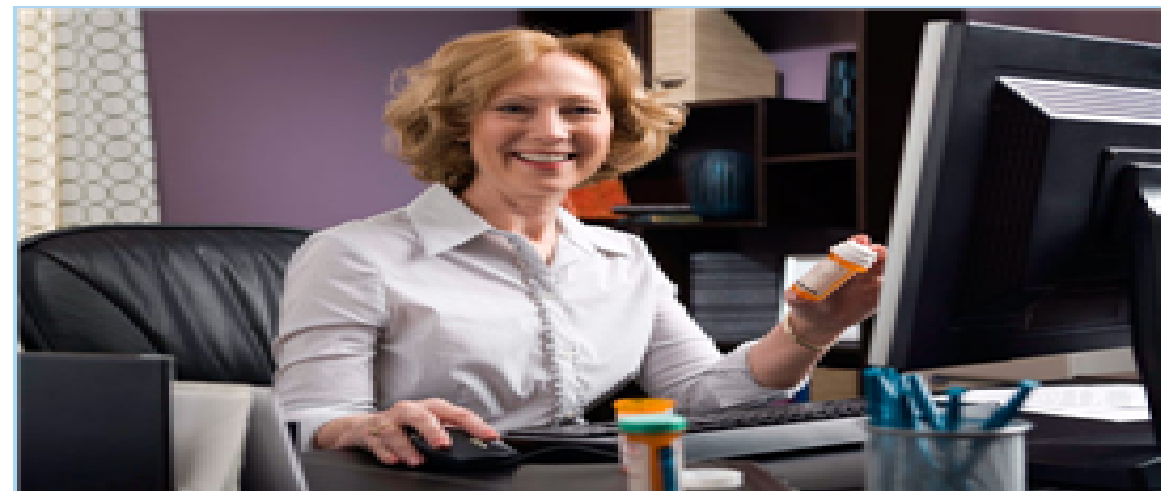
MyChart not only offers patients secure, 24/7 access to their health information, but it also enables them to:

- Review medical history, including medication, immunization and allergy information.
- Receive test results online - no waiting for a phone call or letter.
- Communicate with physicians securely online.
- Request refills of medications online.
- Request an appointment online.

[MyChart Login](#)

In the coming months, MyChart will become available to an increasingly higher percentage of Carilion patients.

To find out if MyChart is right for you, speak with your physician.



With MyChart, patients can request refills of prescriptions online.

[Intranet Home](#)

[PCMH Home](#)

[About Medical Homes](#)

[Medical Home Policies and Protocols](#)

[Clinically Important Conditions](#)

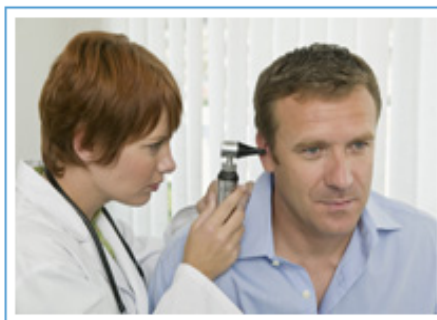
[Quality/Outcomes](#)

[Current Research](#)

[Resources](#)

[PCMH News](#)

## Patient-Centered Medical Home



The Patient-Centered Medical Home is a model of care—an approach to providing continuous, coordinated and comprehensive primary care to adults and children, resulting in improved access and outcomes. The premise: When patients engage in a strong collaborative relationship with their primary care team, their overall health improves. On this site, you'll find:

- Information [about the medical home concept](#), including medical home [principles](#), the [NCQA Standard](#), [recognition requirements](#) and our [implementation plans](#).
- [Policies and protocols](#) to help you make the transition to the medical home.
- Tools and [guidelines](#) to help you help patients stay well and manage common conditions.
- Information on our [outcomes and quality](#) measures.
- Resources, including [frequently asked questions](#), [contact information](#), [links](#) and more.

Click on the links to the left to get started.

# Clinical Guideline Development

- 3 clinical conditions chosen
  - DM, HTN, Asthma
- Primary Care/ Specialty collaborative
- Oversight by quality committee
- Approval through each department
- Available through hyperlinks at the point of care. \*