The Chronic Care Model and The Patient-Centered Medical Home: Complimentary Strategies for Transforming Care

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• Mike is an established healthcare improvement consultant offering strategic planning, project direction, and technical assistance for implementing chronic disease programs in primary, specialty and ancillary care settings.

• Mike has worked on over 200 improvement efforts in the last 25 years in Canada, the US, Singapore, Kazakhstan, Mexico and the UK.

• Mike expertise includes quality improvement design, measurement and practice coaching. Mike was formerly the Associate Director, Clinical Improvement under the guidance of Ed Wagner, MD, MPH of the MacColl Institute in Seattle. Along with Dr. Wagner, Mike and his colleagues created the Chronic Care Model - a system redesign strategy to improve the care for chronically ill.
Today Objectives

1. Understand what the Chronic Care Model (CCM) is and why it is an effective framework for improving the quality of diabetes care.

2. Understand the six core elements of CCM.

3. Be able to explain how CCM fits with the Patient Centered Medical Home.

4. Understand best practices on how to implement CCM: how Maple City Health Care Center is using these elements to impact patient care.
Facts on Chronic Illness in America

- More than 117 million Americans suffer from a chronic condition: 1 in 4 suffer from 2 or more
- Lack of exercise or physical activity, poor nutrition, tobacco use, and drinking too much alcohol cause much of the illness, suffering, and early death related to chronic diseases and conditions.
- 86% of the nation’s $2.7 trillion annual health care expenditures are for people with chronic and mental health conditions.
- Most patients receive little useful assistance in their self-management
- Gaps in quality care lead to thousands of avoidable hospitalizations and deaths each year.
- Patients and families increasingly recognize the defects in their care.

Centres for Disease Control, 2017 Chronic Disease Overview: https://www.cdc.gov/chronicdisease/overview/index.htm
## Origins of the Chronic Care Model

(Holman et al, 2000)

<table>
<thead>
<tr>
<th></th>
<th>Acute Disease</th>
<th>Chronic Illness</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Onset</strong></td>
<td>Abrupt</td>
<td>Generally gradual and often insidious</td>
</tr>
<tr>
<td><strong>Duration</strong></td>
<td>Limited</td>
<td>Lengthy and indefinite</td>
</tr>
<tr>
<td><strong>Cause</strong></td>
<td>Usually single</td>
<td>Usually multiple and changes over time</td>
</tr>
<tr>
<td><strong>Diagnosis and prognosis</strong></td>
<td>Usually accurate</td>
<td>Often uncertain</td>
</tr>
<tr>
<td><strong>Intervention</strong></td>
<td>Usually effective</td>
<td>Often indecisive; adverse effects common</td>
</tr>
<tr>
<td><strong>Outcome</strong></td>
<td>Cure possible</td>
<td>No cure</td>
</tr>
<tr>
<td><strong>Uncertainty</strong></td>
<td>Minimal</td>
<td>Pervasive</td>
</tr>
<tr>
<td><strong>Knowledge</strong></td>
<td>Prof.’s - knowledgeable</td>
<td>Prof.’s and patients have complementary knowledge and exp.’s</td>
</tr>
<tr>
<td></td>
<td>Patients - inexperienced</td>
<td></td>
</tr>
<tr>
<td>Today’s Care</td>
<td>CCM/PCMH Care</td>
<td></td>
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<tr>
<td>----------------------------------------------------------------------------</td>
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<td></td>
</tr>
<tr>
<td>My patients are those who make appointments to see me.</td>
<td>Our patients are those who are registered in our medical home.</td>
<td></td>
</tr>
<tr>
<td>Care is determined by today’s problem and time available today.</td>
<td>Care is determined by a proactive plan to meet health needs, with or without visits.</td>
<td></td>
</tr>
<tr>
<td>Care varies by scheduled time and memory or skill of the provider.</td>
<td>Care is standardized according to evidence-based guidelines.</td>
<td></td>
</tr>
<tr>
<td>I know I deliver high quality care because I’m well trained.</td>
<td>We measure our quality and make rapid changes to improve it.</td>
<td></td>
</tr>
<tr>
<td>Patients are responsible for coordinating their own care.</td>
<td>A prepared team of professionals coordinates all patients’ care.</td>
<td></td>
</tr>
<tr>
<td>It’s up to the patient to tell us what happened to them.</td>
<td>We track tests and consultations, and follow up after ED and hospital visits.</td>
<td></td>
</tr>
<tr>
<td>Clinic operations center on meeting the doctor’s needs.</td>
<td>An interdisciplinary team works at the top of our licenses to serve patients.</td>
<td></td>
</tr>
</tbody>
</table>
What to do?

• The future of care (and our healthcare system) depend upon its ability to improve the quality and efficiency of its care for the chronically ill

• It will also requires the continuing commitment of primary and specialty care to meet the needs of patients for timely, patient-centered, continuous and coordinated care

• However, simply knowing what to do is not enough.

• Practice transformation requires a commitment to system redesign from top to bottom, to the patient and family
The Chronic Care Model
6 core elements

Community
1. Health Care Organization
2. Self-Management Support
3. Delivery System Design
4. Decision Support
5. Clinical Information Systems
6. Resources and Policies

Health System

Productive Interactions

Informed, Activated Patient
Prepared, Proactive Practice Team

Improved Outcomes in Chronic Diseases
The Chronic Care Model Emphasizes Care Team to:

- Become a proactive prepared practice team vs. reacting to what comes in the door each day
- Identify patient populations, track outcome data to deliver proactive preventive and clinical care
- Deliver some level of self-management support at every encounter (use Brief Action Planning)
- Conduct planned visits where all team members have clear roles and responsibilities
- Deliver care/case management to high risk/complex patients
- Develop care coordination agreements with consultants and other community providers
- Develop efficient referral processes to community resources that can help patients better self-manage

The Chronic Care Model (CCM) identifies the essential elements of a health care system that encourage high-quality chronic disease care.
1. Health Care Organization

• The health system has to be committed to improving chronic care:
  • Accountable leadership committed to promoting improved care
  • CCM Built into Business Plan
  • Committed to redesigning systems that promote great outcomes through CCM, PCMH, QI strategies
  • Develop an infrastructure to sustain system transformation during staff turn-overs
2. Self-Management Support

- Have someone in the practice trained in effective self-management counseling.
- AND/OR develop a link with trained patient educator(s) in the community.
- Repeatedly emphasize the patient's central role.
- Organize practice team and resources to provide some self-management support AT EVERY ENCOUNTER.
Delivering Self-Management Support
Brief Action Planning

“Is there anything you would like to do for your health in the next week or two?”

- Have an idea?
- Not sure? Behavioral Menu
- Not at this time

SMART Behavioral Plan → Elicit a Commitment Statement

“How confident or sure do you feel about carrying out your plan (on a scale from 0 to 10)?”

- Confidence ≥7
- Confidence <7, Problem Solving

“Would it be helpful to set up a check on how things are going with your plan?”

Check on Progress

www.centrecmi.ca
Effects of Self-Management Education on HbA1c Levels across 31 RCTs

Difference in HbA1c levels between SM and control groups

Norris et al, Diabetes Care 2002; 25:1159
3. Delivery System Design

• Build a team focused on continuous healing patient relationships

• Define roles and distribute tasks among team members.

• Use planned interactions routinely to support evidence-based care.

• Intensify treatment if goals not reached—stepped care and care management

• Ensure regular follow-up.

• Give care that patients understand and that fits their culture.
Huddling and Planned Care

Team meets for 5-10 minutes to prepare for the day

Team plans and organizes their visits or other contacts with chronically ill patients

a) Prior to visit (session), team huddles to review registry to identify needed services (e.g., Aic, ldI, foot, kidney, eye, depression screening)

b) Team organizes to provide those services

c) After visit (session), team huddles to review follow-up
Care Management

Definition: More intensive management of high risk patients that consists of:

- Target best patients through registry review with provider: (e.g., A1c>9, 7-9, <7)
- More intensive self-management support
- Closer monitoring of medications and medication adherence, medication adjustment
- Ensure safe transitions and follow up
- Coordination of care (including navigation)
- Partnership with care provider
4. Decision Support

- Embedding Evidence-Based Practice into the care.
- Ensuring “clean” handoffs to specialty care
- Leveraging EMR to its highest functionality
Example of Managing Diabetic Care

GOALS OF CARE
- Prevent complications
- Optimize quality of life

ASSESS KEY PATIENT CHARACTERISTICS
- Current lifestyle
- Comorbidities, i.e., ASCVD, CKD, HF
- Clinical characteristics, i.e., age, HbA₁c, weight
- Issues such as motivation and depression
- Cultural and socioeconomic context

CONSIDER SPECIFIC FACTORS THAT IMPACT CHOICE OF TREATMENT
- Individualized HbA₁c target
- Impact on weight and hypoglycemia
- Side effect profile of medication
- Complexity of regimen, i.e., frequency, mode of administration
- Choose regimen to optimize adherence and persistence
- Access, cost, and availability of medication

REVIEW AND AGREE ON MANAGEMENT PLAN
- Review management plan
- Mutual agreement on changes
- Ensure agreed modification of therapy is implemented in a timely fashion to avoid clinical inertia
- Decision cycle undertaken regularly (at least once/twice a year)

ONGOING MONITORING AND SUPPORT INCLUDING:
- Emotional well-being
- Check tolerability of medication
- Monitor glycemic status
- Biofeedback including SMBG, weight, step count, HbA₁c, blood pressure, lipids

IMPLEMENT MANAGEMENT PLAN
- Patients not meeting goals generally should be seen at least every 3 months as long as progress is being made; more frequent contact initially is often desirable for DSMES

AGREE ON MANAGEMENT PLAN
- Specify SMART goals:
  - Specific
  - Measurable
  - Achievable
  - Realistic
  - Time limited

SHARE DECISION MAKING TO CREATE A MANAGEMENT PLAN
- Involves an educated and informed patient (and their family/caregiver)
- Seeks patient preferences
- Effective consultation includes motivational interviewing, goal setting, and shared decision making
- Empowers the patient
- Ensures access to DSMES

Standards of Medical Care in Diabetes—2019
Abridged for Primary Care Providers
American Diabetes Association

5. Clinical Information Systems

Population Management: Knowing Your Patients’ Care Needs

• Registries: (e.g. all patient with ICD10 of 250.xx in last year)

• Reminders/Recall

• Risk Stratifying: (e.g., clinical control [ABCs] and confidence to manage health)

- Identify critical patient services in your community—social services, behavior change, etc.
- Discuss your needs (e.g., access, information) with them.
- Help patients access needed services.
- Assure that all parties receive needed information.
How CCM fits with the Patient Centered Medical Home

1) Team-Based Care and Practice Organization (TC):
   - helps structure a practice’s leadership, care team responsibilities and how the practice partners with patients, families and caregivers.

2) Knowing and Managing Your Patients (KM):
   - Sets standards for data collection, medication reconciliation, evidence-based clinical decision support and other activities.

3) Patient-Centered Access and Continuity (AC):
   - Guides practices to provide patients with convenient access to clinical advice and helps ensure continuity of care.

4) Care Management and Support (CM):
   - Helps clinicians set up care management protocols to identify patients who need more closely managed care.

5) Care Coordination and Care Transitions (CC):
   - Ensures that primary and specialty care clinicians are effectively sharing information and managing patient referrals to minimize cost, confusion and inappropriate care.

6) Performance Measurement and Quality Improvement (QI):
   - Improvement helps practices develop ways to measure performance, set goals and develop activities that will improve performance.
Medical Home – Chronic Care Model
Duplicative, Complementary or Antagonistic?

• Both emphasize and support patient role in decision-making
• Both promote the need for self-management support
• Both detail the need for effective use of clinical info Technology, community resources and coordinated care
• CCM redesigns care delivery for planned care
• MH redefines primary care responsibility
• Both models contain useful change concepts for practice transformation
What Have We Learned from Those Working to Transform Care?

• The key role of leadership
• The burden of measurement
• Diversity across and within regions
• The crush of competing priorities
• Need for technical assistance
• Need for peer-to-peer learning
• Rich creativity among participating those that engage in the work
• Sustainability
A Recipe for Improving Outcomes

1. Leadership

2. Evidence-Based Practice

3. QI Strategy

4. System Change Strategy

5. Learning Strategies
Making a Difference
Maple City Health Care Center

An FQHC serving 3,000 patients in a small mid-western town in North Central Indiana.

The clinic offers programs promoting community engagement addressing the community’s social determinants of health:

1. Elementary school scholarships
2. Our Futures Together
3. Centering Pregnancy and Doula Services
4. More Than Money (MTM) program
5. Community Garden
6. Community Leadership BOD

Note: 1 of 33 organizations named by Improving Primary Care Project as High Performing Health System
Overall Recommendations to Improve Diabetes and Population Health

- Ensure treatment decisions are **timely**, rely on **evidence-based** guidelines, and are made **collaboratively with patients** based on individual preferences, prognoses, and comorbidities. B

- Align approaches to diabetes management with the **Chronic Care Model**, emphasizing productive interactions between a prepared proactive care team and an informed activated patient. A

- Care systems should facilitate **team-based care**, **patient registries**, **decision support tools**, and **community involvement** to meet patient needs. B

Standards of Medical Care in Diabetes 2019
Abridged for Primary Care Providers
American Diabetes Association
Resources to Get Started
Transforming the organization and delivery of primary care.

Why do we need to transform?

The Agency for Healthcare Research and Quality recognizes that revitalizing the Nation’s primary care system is foundational to achieving high-quality, accessible, efficient health care for all Americans. The primary care medical home, also referred to as the patient centered medical home (PCMH), advanced primary care, and the healthcare home, is a promising model for transforming the organization and delivery of primary care.

What real-world examples of effective practice transformation are available?

This website features evidence, examples, and lessons learned from primary care practices that have transformed their practice and achieved better outcomes for their patients.
The Primary Care Team Guide presents practical advice, case studies, and tools from 31 practices across the country that have markedly improved care, efficiency, and job satisfaction by transforming to a team-based approach.

Building a Primary Care Team

Learn how expanding roles, increased training and using standing orders can develop trust, teamwork and efficiencies in your practice.
https://www.ncqa.org/programs/health-care-providers-practices/patient-centered-medical-home-pcmh/

For those of you seeking NCQA recognition resources can be found at the NCQA website.
The Chronic Care Model

Community
- Resources and Policies
- Self Management Support

Health Systems
- Organization of Health Care
- Delivery System Design
- Decision Support
- Clinical Information Systems

Improved Outcomes

What is a chronic condition?
There are many definitions of “chronic condition,” some more expansive than others. We characterize it as any condition that requires ongoing adjustments with the affected person and interactions with the health care system.

The prevalence is rising
2005 data showed that more than 133 million people, or almost half of all Americans, live with a chronic condition. That number is projected to increase by more than one percent per year by 2030, resulting in an estimated population of 171 million requiring chronic disease management.

Management of multiple chronic conditions requires a transformation in health care.
Almost half of all people with chronic illness have multiple conditions. As a result, many managed care and integrated delivery systems have taken a great interest in correcting the many deficiencies in current management of diseases such as diabetes, heart disease, depression, asthma and others. 2, 3, 4

Those deficiencies include:
- Rushed practitioners not following established practice guidelines
- Lack of care coordination and planned care
- Lack of active follow-up to ensure the best outcomes
- Patients inadequately trained to manage their illnesses
Questions or Comments

Thank you!
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