The Chronic Care Model: Past, Present and Future

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Presentation Objectives

• Describe the origins of the Chronic Care Model (CCM)
• Describe current use of the CCM
• Consider how to use the CCM at the state level
Origins of the CCM

Population-based Care

Total Population

Effective Treatment

All Cases

Better Health

Case or Risk Factor Identification
Model Development 1993 --

- Initial experience at GHC
- Literature review
- RWJF Chronic Illness Meeting -- Seattle
- Review and revision by advisory committee of 40 members (32 active participants)
- Interviews with 72 nominated “best practices”, site visits to selected group
- Model applied with diabetes, depression, asthma, CHF, CVD, arthritis, geriatrics, prevention
- Translated and adapted
Timeline for Care Model Development


Early publication on care delivery for chronic conditions

GUIDELINES

EVIDENCE-BASED, PLANNED CARE

PRACTICE REDESIGN
- Appointments
- Rules
- Follow-up

PATIENT EDUCATION
- Self-management
- Behavioral change
- Psychosocial support
- Patient participation

EXPERT SYSTEM
- Provider education
- Decision support
- Consultation

INFORMATION
- Reminders
- Outcomes
- Feedback
- Case planning

FIG. 1. Improving outcomes in chronic illness.

Wagner et al, Milbank Quarterly 1996
Self-management support

- Help patients understand their important role in managing their health
- Use effective self-management support strategies that include goal setting, action planning, problem solving and follow up.
- Organize internal and external resources to provide ongoing self-management support to patients.
Delivery System Design

• Develop a multidisciplinary team that optimizes the role of each member in clinic & community
• Use planned interactions to support evidence-based care
• Provide clinical case management services for complex patients
• Ensure regular follow-up by the care team
• Give care that patients understand and that fits with their cultural background
• Improve efficiencies and access

Decision support

• Embed evidence-based guidelines into daily clinical practice
• Share evidence-based guidelines and information with patients to encourage their participation
• Use proven provider education methods
• Integrate specialist expertise and primary care
Clinical Information System

- Identify relevant subpopulations for proactive care
- Facilitate individual patient care planning
- Provide timely automated reminders for providers and patients
- Share information with patients and providers to coordinate care
- Monitor performance of the team and care system
- Use data at the point of care

Health Care Organization

- Visibly support improvement at all levels of the organization, beginning with the senior leader
- Promote effective improvement strategies aimed at comprehensive system change
- Develop agreements that facilitate care coordination within and across organizations
- Create an optimal “Medical Home” that is the center of the healthcare system
- Develop workforce to support transformation
Community

- Encourage patients to participate in effective community programs
- Form partnerships with community organizations to support and develop interventions that fill gaps in needed services
- Advocate for policies to improve patient care and confidence
- Promote community involvement in strategic planning and improvement activities
- Understand and fix access barriers to interactions/relationships over time

What’s it look like for a person?
Adding Prevention and Public Health
BC’s Expanded Chronic Care Model, 2002

http://www.healthservices.gov.bc.ca/cdm/cdminbc/chronic_care_model.html

- Community
  - Create Supportive Environments
  - Build Healthy Public Policy
  - Strengthen Community Action

- Health System
  - Self-Management Support/Develop Personal Skills
  - Delivery System Design/Re-orient Health Services
  - Decision Support
  - Information Systems

- Population Health Outcomes
  - Functional and Clinical Outcomes

Activated Community

Prepared, Proactive Community Partners

BC’s Expanded Chronic Care Model, 2002

http://www.healthservices.gov.bc.ca/cdm/cdminbc/chronic_care_model.html

- Community
  - Self-Management Support
  - Delivery System Design
  - Decision Support

- Health System
  - Information Systems

- Population Health Outcomes
  - Functional and Clinical Outcomes

Evaluated and Developed for American Indian and Alaska Native individuals, families, and communities

Improved health and wellness for American Indian and Alaska Native individuals, families, and communities

Activated Community

Prepared, Proactive Community Partners

IPCC Care Model
Adding the policy level

Innovative Care for Chronic Conditions Framework

Positive Policy Environment
- Strengthen partnerships
- Support legislative frameworks
- Promote consistent financing
- Develop and allocate human resources
- Integrate policies
- Provide leadership and advocacy

Community
- Raise awareness and reduce stigma
- Encourage better outcomes through leadership and support
- Mobilize and coordinate resources
- Provide complementary services

Health Care Organization
- Promote continuity and coordination
- Encourage quality through leadership and incentives
- Organize and equip health care teams
- Use information systems
- Support self-management and prevention

Better Outcomes for Chronic Conditions

WHO, 2002
Proposed Uganda Chronic Care Model

Positive Policy Environment
- Integrate policies
- Provide leadership and advocacy
- Promote consistent financing
- Assure workforce capacity and capability

Community
- Raise awareness and reduce stigma
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Health Care Organization
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Better Outcomes for Chronic Conditions

Evidence in Support of the CCM

- Cochrane diabetes review (Renders et al, 2001) supported four clinical elements
- Bodenheimer et al review (JAMA, 2002) used case studies and review of 39 studies
- Coleman et al (Health Affairs, 2009) studies referring to CCM since 2000
- Improving Chronic Illness Care Evaluation
  www.rand.org/health/projects/icice.html
- Assessment of Chronic Illness Care (Bonomi et al, Health Services Research, 2002)
- Patient Assessment of Chronic Illness Care (Glasgow et al, Medical Care, 2005)
Where did the medical home come from?

<table>
<thead>
<tr>
<th>Dates</th>
<th>redesign activity</th>
<th>other events in health care</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960-1969</td>
<td>medical home for ill children, POMR, EHR</td>
<td>PC named, NPs &amp; PAs, Medicare &amp; Medicaid</td>
</tr>
<tr>
<td>1970-1979</td>
<td>Primary Care Research Groups, SGIM</td>
<td>NCI, NIA, Managed Care, VA amb. care</td>
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<tr>
<td>1980-1989</td>
<td>AHCPR, PC PBR</td>
<td>USPSTF</td>
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<tr>
<td>1990-1999</td>
<td>IHM’s IDCOP, CCM, Microsystems, IPFCC</td>
<td>RVUs, hospitalists, determinants of health</td>
</tr>
<tr>
<td>2000-2009</td>
<td>AAFP promotes MH, joint principles, demos</td>
<td>Medicare part D</td>
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</tbody>
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Kilo & Wasson, Health Affairs, 2010, Practice Redesign and the Patient-Centered Medical Home: History, Promises and Challenges

Model Amalgamation

IDCOP

<table>
<thead>
<tr>
<th>ACCESS</th>
<th>INTERACTION</th>
<th>RELIABILITY</th>
<th>VITALITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Access</td>
<td>Customized Communication</td>
<td>Knowledge Management</td>
<td>Research and Development</td>
</tr>
<tr>
<td>Continuous Flow</td>
<td>Interaction Technology</td>
<td>Population Management</td>
<td>Staff Development</td>
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IDCOP: Alternative to 1:1 visits, Optimized care team/master schedule, Leadership/Measurement systems/Financial management

CCM

<table>
<thead>
<tr>
<th>Chronic Care Model</th>
<th>Community Collaboration and Partnerships</th>
<th>Self-Management Support</th>
<th>Health System Eigthganization</th>
<th>Clinical Improvement</th>
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<tbody>
<tr>
<td></td>
<td>Improved Outcomes</td>
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= PCMH

PCMH

Improved Outcomes
the Triple Aim

- Healthy People: The system sees the individual, and plans for everyone
- Happy People: We aren’t afraid and have confidence in the system
- And we can afford it: Dollars spent on the “right” care, because we all use the system appropriately

Per Capita Cost

Population Health

Experience of Care

The Triple Aim, www.ihi.org

What can a state do?

- Collaborative improvement efforts in partnership
  - condition-specific collaboratives
  - PCMH (recent Commonwealth report by Kaye et al)
  - prevention
- Support for EB programs
  - Chronic Disease Self-management Program
- Policy changes
- Support the Triple Aim
Is geographic improvement possible?

Indiana

• Health Commissioner and Medicaid Director to improve care for 80,000 chronically ill Medicaid recipients
• State leadership and money creating a Medicaid care system
• Statewide Collaborative Program PLUS
  - call center
  - community-based nurse care managers linked to practices
  - statewide Web-based patient registry
  - registry updated with claims data
  - collaboratives
  - embedded RCT
• Reported cost-savings to the Governor

courtesy of Mike Hindmarsh  hindsighthealthcare@rogers.com
Is geographic improvement possible?

North Carolina

- State leadership and money has created a visionary Medicaid care system
- Measurement system, Guidelines, Physician networks, Care Managers, Collaboratives
- Financial rewards for participating
- Early results promising
- Plans to extend to include all patients regardless of insurance coverage

courtesy of Mike Hindmarsh  hindsighthealthcare@rogers.com

Is geographic improvement possible?

Washington State

- Diabetes Surveillance
- Regional Collaboratives
- Standard guidelines & payment reform
- Laid groundwork for PSHA

courtesy of Mike Hindmarsh  hindsighthealthcare@rogers.com
Is geographic improvement possible?

Pennsylvania

NEW NEWS NEWS NEWS NEWS NEWS

FOR IMMEDIATE RELEASE
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GOVERNOR RENDELL APPOINTS MEMBERS TO CHRONIC CARE COMMISSION AS PART OF HIS PRESCRIPTION FOR PENNSYLVANIA

"Almost 70 percent of all health care costs in Pennsylvania are attributable to 20 percent of all patients—those with chronic disease," Governor Rendell said. "The members of the Chronic Care Management Commission will be responsible for developing the process to effectively manage chronic disease across the state. We must reduce the occurrence and cost of chronic diseases without adversely affecting quality, service and treatment in a comprehensive, proactive way.

courtesy of Mike Hindmarsh hindsglinthealthcare@rogers.com

• Started at the National Governors Association
• All the major players at the table
• Timeline & budget to make it happen

Questions?
Resources

- www.improvingchroniccare.org
- www.commonwealthfund.org

Thank you!