Implementing the Chronic Care Model: Fostering Partnerships in Rural Primary Care

Janice Zgibor, RPh, PhD
Director of Evaluation
University of Pittsburgh Diabetes Institute
Assistant Professor of Epidemiology
Why are things so bad?

- The prevalence of diabetes continues to rise.
- Disparities exist between what diabetes care is and what it should be.
- The health care system (particularly primary care) still operates under an acute care model.
- The path to improving outcomes in people with diabetes requires an understanding of both patient and provider behavior considering system level characteristics.

Adapted from Saydah S.H., et al. JAMA 291 335-342, 2004
Potential Solutions

• Model of chronic illness care which is evidence-based, population-based, and patient-centered

• Implementation of chronic illness model into clinical practice

Chronic Care Model

Community Resources and Policies
- Self-Management Support

Health System Organization of Healthcare
- Delivery System Design
- Decision Support Information Systems

Informed, Activated Patients and Caregivers
Productive Interactions
Prepared, Proactive Practice Team

Improved Outcomes
Unanswered question remains...

• How do we implement the Chronic Care Model in primary care?
  • …in small practices
  • …independent of a health system
  • …in underserved areas
Study Area
Centers for Disease Control and Prevention (CDC) 2005 Diabetes Diagnosis Percentages for the State of Pennsylvania and Pennsylvania 12th Congressional District

County Diabetes Percentages (%):
- < 7.0%: Yellow
- 7.01 - 8.0%: Orange
- 8.01 - 9.0%: Red
- 9.01 - 10.30%: Dark Red
- 10.31 - 11.30%: Maroon

Source: CDC

Kimball TECHNOLOGY
A Member of the DMG

100 Miles
Patients traveling to medical centers in study area.
Impact of Distance

- Those who live more than 10 mi from their diabetes center are 88% more likely to have an A1c level greater than 7.0% compared to those who live less than 10 mi from their center, adjusted covariates
Implementing the Chronic Care Model in Rural Southwestern Pennsylvania
Methods: Qualitative Assessment

- Diabetes educators from the Pittsburgh Regional Initiative for Diabetes Education identified primary care practices and requested participation.

- Focus groups were scheduled during a time that would maximize attendance of all team members.

- Participants included physicians, nurse practitioners, physician assistants, medical assistants and other office staff.

- A brief overview of the Chronic Care Model was presented

- A discussion of immediate (1-3 month), intermediate (3-6 month), and long term priorities followed.
Once the focus groups were completed, study staff began creating a diary of what was occurring at each site.

This “Diary of Adoption” is used to examine what elements of CCM are implemented at each primary care facility.

The “Diary” is updated on a biweekly basis using input from study staff, diabetes educators, and project managers.
Results

- Thirteen primary care practices participated in group discussions.
- Total attendees = 48
Priority Areas Identified

• Delivery System Design
  • Increased access to diabetes specialty services
    • In office
    • Local venues (churches, YMCA)
  • Shared Medical Appointments (Group Medical Visits)
  • More support groups

• Community Awareness
  • Exercise (local resources)
  • Nutrition (grocery store tours)
Priority Areas

• Decision Support/Clinical Information Systems
  • Documentation from specialists (especially for eye exams)
  • Posters with Standards of Care for providers
  • Cards with Standards of Care for patients
  • Flow sheets for tracking

• Health System
  • NCQA recognition
  • ADA/AADE recognition
  • Barriers for reimbursement
Number of elements adopted

- On average practices agreed to adopt/adopted 3 elements of the CCM, however, the process is ongoing.
- The most frequently adopted element was Self-Management Support followed by Delivery System Design.
Sequence of adoption

• While there was no clear pattern, the elements implemented first were Delivery System Design (diabetes educators on site) and Decision Support (Clinical Guidelines)
• Health System (mechanisms for reimbursement) and Self-Management Support (standardized materials and increased access to diabetes education) followed.
• Last was Clinical Information Systems.
• In general, though the Community element was deemed important by providers, it was not prioritized as an element they would target for change.
Highlands Hospital Diabetes Center invites you to

Dancing with Diabetes

Fun, Free Ballroom Dance Lessons for people with Diabetes, people at risk for Diabetes and their dancing partners!

South Connellsville Fire Hall
1527 S. Pittsburgh Street, South Connellsville, PA
Back Entrance

6:00 PM Wednesdays

3/10/2010 5/12/2010
3/24/2010 5/26/2010
4/14/2010

Then, join us for the Dancing with Diabetes Grand Ball in June!

Come Alone or Bring a Partner!
Call the Highlands Hospital Diabetes Center for more information or to RSVP at (724) 628-8008.
Phase II: Intervention

- Practice specific intervention
  - Based on discussion group findings
  - Implemented based on practice needs and resources
  - Supplemented with resources as needed
- Resources include
  - Three practice coaches deployed to support efforts
  - Chart auditor for NCQA efforts in addition to study data collection
- Visits with the practices are scheduled to occur monthly to assess barriers and successes.
Evaluation: Qualitative

☐ GOAL: Is there a constellation of characteristics that is associated with successful adoption of the Chronic Care Model?

• identify challenges that practices with specific characteristics might expect to encounter in adopting the Chronic Care Model

• make practice-specific recommendations about the optimal process for adopting the Chronic Care Model, given its characteristics
Evaluation: Qualitative

• Adoption diaries
  • Process analysis
• Follow-up visits
  • Implementation support
• Follow-up discussions
  • Exploration of the challenges/facilitators
Evaluation: Quantitative

- Chart audit to benchmark practice process delivery and patient clinical status
- A random selection of 40 charts per practice are audited by an honest broker
- Timeline:
  - 15 months prior to discussion group
  - 12-15 months after discussion group
Lessons learned

• Ask before you implement!!
  • Intervene on what is a priority to them
  • Empower and support
  • Expect the unexpected
• When a door closes, stop knocking and go next door
• Small changes deserve huge accolades.
Acknowledgement

"This research was sponsored by funding from the United States Air Force administered by the U.S. Army Medical Research Acquisition Activity, Fort Detrick, Maryland, Award Number W81XWH-04-2-0030."