Diabetes Self Management in a Community Health Center

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Holyoke Health Center
Holyoke, Massachusetts

- Small industrial city in Western Massachusetts
- Population 39,000
- Service area 75% Latino
- 50% of residents Medicaid recipients
- 46% below 200% of federal poverty level
Holyoke Health Center

- Two main clinic sites
- Migrant clinics and county jail sites
- 20,000 patients
- 76,000 annual visits
- 18.6 FTE MD and NP medical providers
Comprehensive Services

- Adult, Pediatric, Family Medicine
- Urgent Care
- Dental
- Pharmacy
- Addiction treatment (Suboxone)
- Migrant Health Program
- Mental Health Services
- Support for patients with chronic diseases
- Participation in Health Disparities Collaboratives
Implementation of the Chronic Care Model, 1999

- Key Program Elements at HHC:
  - Team Approach
  - Electronic registry
  - Key clinical information at time of visit
  - Clinician training – treat to target
  - Exercise and Nutrition programs

- Outcomes
  - Generated data to track progress
  - Staff became invested
  - Outcomes improved a little
The Missing Piece: Self-Management Support

- 2003 – present
- RWJF supported

Goals:
- Increased patient knowledge
- Increased self efficacy and problem solving
- Peer support/role modeling/mentoring
- Linkages to community supports
- Continued involvement in medical care
- Goal setting
- Physical activity and nutrition
Self-Management Activities

- Weekly breakfast club
- Weekly afternoon snack club
- Supermarket tours
- Diabetes education classes
- Individual diabetes teaching with RN
- On-site Exercise class
- Community Health Workers
- Volunteers/Mentors
Community Health Workers

- CHWs:
  - Outreach to at-risk patients
  - Home visits
  - Phone contact
  - Clinic visits
  - Attend medical visits
  - Help with group activities.

- Mentors assist with group activities.

Role Modeling; Mentoring; Peer Education/Support
Patient Participation

- 580 individuals participated in self-management over 3 years (49%)

- Diabetes educator: 439
- Breakfast club: 147
- Snack club: 162
- Diabetes class: 146
- CHW interaction: 136
Clinical Outcomes

- Prior to 2003
  - Average A1C from 8.1 to 8.4
  - Proportion with A1c < 7.0 about 30%
  - Proportion with A1c > 10.0 remained 18-20%

- 2003-2006
  - Average A1c dropped to 7.5
  - Proportion with A1c < 7.0 increased to 46%
  - Proportion with A1c > 10.0 dropped to 10.8%
Improvements in Glycemic Control
Years 2000-2006

<table>
<thead>
<tr>
<th>Year</th>
<th>A1c &lt; 7</th>
<th>A1c 7-9.9%</th>
<th>A1c &gt;10%</th>
<th>Avg. HgbA1c</th>
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</thead>
<tbody>
<tr>
<td>2000</td>
<td>29.0%</td>
<td>30.7%</td>
<td>18.5%</td>
<td>51.4%</td>
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<td>2001</td>
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<tr>
<td>2006</td>
<td>43.0%</td>
<td>43.0%</td>
<td>10.8%</td>
<td>43.0%</td>
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</tbody>
</table>

# of Patients: 169
Growth in the Number of Patients

- 1999
- 2000
- 2001
- 2002
- 2003
- 2004
- 2005
- 2006
Now... More Patients with Diabetes

- January 2006: 1188 patients
- January 2007: 1456 patients
- August 2007: 1642 patients

- Average A1c has remained 7.5
- Proportion of patients not seen > 1 year is increasing
- Proportion with uncontrolled diabetes is increasing
- The model works, but the numbers are overwhelming
Where Do We Go From Here?

- Maintain existing program; expand as able
- Obesity Programming: Healthy Weight for Women
- Community Prevention
- Chronic Disease Self Management
Chronic Disease Self-Management

- Model developed at Stanford (Lorig et al)
- Group sessions, not disease specific
- Focus on problem solving skills, self-efficacy
- Led by paraprofessional staff (MAs)
- Program run in clinic, and outside sites