Proyecto Vida Saludable: An Innovative Program for Latino Patients with Type 2 Diabetes

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Holyoke Health Center

Funded by the Robert Wood Johnson Foundation
Holyoke Health Center

- JCAHO accredited
- Federally Qualified CHC
- Western Massachusetts
- 17,277 medical patients
- 6,722 dental patients
- 162 employees
  - 25 medical providers
  - 3 dentists
  - On-site retail pharmacy
- One of the highest diabetes mortality rates in Massachusetts
- Nearly 100% of our patients live at or below the poverty level
# Proyecto Vida Saludable: Race, Type of Diabetes

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Latino</td>
<td>88.4%</td>
<td>87.9%</td>
<td>87.6%</td>
<td>85.6%</td>
</tr>
<tr>
<td>Caucasian</td>
<td>7.9%</td>
<td>8.0%</td>
<td>8.7%</td>
<td>9.8%</td>
</tr>
<tr>
<td>African-American</td>
<td>1.4%</td>
<td>1.5%</td>
<td>1.2%</td>
<td>1.6%</td>
</tr>
<tr>
<td>Other/Unspecified</td>
<td>2.3%</td>
<td>2.6%</td>
<td>2.5%</td>
<td>2.5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Diabetes</th>
<th></th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Type 1</td>
<td>1.8%</td>
<td>2.3%</td>
<td>2.9%</td>
<td>1.8%</td>
</tr>
<tr>
<td>Type 2</td>
<td>98.3%</td>
<td>97.9%</td>
<td>97.9%</td>
<td>98.4%</td>
</tr>
</tbody>
</table>
### Proyecto Vida Saludable:
Patients with Diabetes: Age of Population

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Patients</td>
<td>773</td>
<td>877</td>
<td>1054</td>
<td>1180</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;30</td>
<td>4.3%</td>
<td>4.6%</td>
<td>4.2%</td>
<td>3.5%</td>
</tr>
<tr>
<td>30-49</td>
<td>34.5%</td>
<td>34.5%</td>
<td>33.5%</td>
<td>33.5%</td>
</tr>
<tr>
<td>50-64</td>
<td>45%</td>
<td>44.6%</td>
<td>43.4%</td>
<td>42.8%</td>
</tr>
<tr>
<td>≥ 65</td>
<td>16.6%</td>
<td>16.3%</td>
<td>19.0%</td>
<td>20.3%</td>
</tr>
</tbody>
</table>
Type of Insurance for Patients with Diabetes at Holyoke Health Center

<table>
<thead>
<tr>
<th>Year</th>
<th>Private</th>
<th>Uninsured</th>
<th>Public</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>90.5%</td>
<td>10%</td>
<td>8%</td>
</tr>
<tr>
<td>2004</td>
<td>87.9%</td>
<td>10%</td>
<td>8%</td>
</tr>
<tr>
<td>2005</td>
<td>86.3%</td>
<td>10%</td>
<td>8%</td>
</tr>
<tr>
<td>2006</td>
<td>83.7%</td>
<td>10%</td>
<td>8%</td>
</tr>
</tbody>
</table>

N= 750 853 1016 1122
Body Mass Index 2003-2006

2003
- <25: 14.2%
- 25-29.9: 8.2%
- 30-39.9: 28.2%
- ≥40: 49.5%

2004
- <25: 17.5%
- 25-29.9: 8.0%
- 30-39.9: 25.6%
- ≥40: 48.9%

2005
- <25: 16.6%
- 25-29.9: 9.8%
- 30-39.9: 25.4%
- ≥40: 48.1%

2006
- <25: 16.9%
- 25-29.9: 8.6%
- 30-39.9: 26.6%
- ≥40: 47.9%

Holyoke Health Centers Patients with Diabetes
Increase in the Number of Patients with Diabetes at the Holyoke Health Center

Number of Patients

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>499</td>
</tr>
<tr>
<td>2004</td>
<td>675</td>
</tr>
<tr>
<td>2005</td>
<td>873</td>
</tr>
<tr>
<td>2006</td>
<td>1061</td>
</tr>
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</table>
Program Interventions

- Initial Focus Groups
- Breakfast Club
- Chronic Disease Self-Management Classes
- Community Health Workers
- Diabetes Education Classes
- Exercise Classes
- Individual Appointments with the diabetes educator and the nutritionist
- Snack Club
Breakfast Club

- Eleven Sessions
- Nutritious Breakfast
- Correct Portion Sizes
- Balanced Meals
- Variety of Foods
- New food products introduced
- Label reading
- Hands on learning opportunities
- Incentives and raffles
Supermarket Tour

- Practice skills learned in class
- Patients with low literacy levels benefit
- Assess patient knowledge of products and food selection
- Hands on learning
Chronic Disease Self-Management Program

- Six, two hour sessions
- Intervention Focus
  - Goal Setting
  - Problem Solving
  - Cognitive Techniques
  - Breathing Techniques
Community Health Workers

- Bridge between the community and the health center
- Co-lead Programs
- Outreach
- Telephone Follow-Up
- Joint Visits with Providers
- Teaching
- Social Support
- Goal Setting/Problem Solving
Diabetes Education Classes
Exercise Class
Individual Appointments with Diabetes Educator and Nutritionist

- Medication Management
- Nutrition Therapy
- Self-Monitoring Blood Glucose
- Prevention of Complications
- Exercise
- Preventative Health Care
- Diabetes Self-Management Programs
- Goal Setting/Problem Solving
Drop In Snack Club

- Informal gatherings
- Meet Program Staff
- Diabetes Bingo
- Raffles with healthy prizes
- Goal Setting
- Problem Solving
- Referral to other programs
Significant HA1c Improvements

<table>
<thead>
<tr>
<th>Year</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>02-03</td>
<td>499</td>
</tr>
<tr>
<td>03-04</td>
<td>675</td>
</tr>
<tr>
<td>04-05</td>
<td>873</td>
</tr>
<tr>
<td>05-06</td>
<td>1061</td>
</tr>
</tbody>
</table>
Patients with HA1c less than 7

<table>
<thead>
<tr>
<th>Year</th>
<th>%</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>02-03</td>
<td>29.7%</td>
<td>499</td>
</tr>
<tr>
<td>03-04</td>
<td>34.4%</td>
<td>675</td>
</tr>
<tr>
<td>04-05</td>
<td>41.8%</td>
<td>873</td>
</tr>
<tr>
<td>05-06</td>
<td>46.7%</td>
<td>1061</td>
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Patients with HA1c Greater than or Equal to 9

- 02-03: 29.1%
- 03-04: 26.1%
- 04-05: 23.4%
- 05-06: 21.2%

N=
- 02-03: 499
- 03-04: 675
- 04-05: 873
- 05-06: 1061
Significant Improvements in LDL

% With LDL Tested

<table>
<thead>
<tr>
<th>Year</th>
<th>% Tested</th>
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<tbody>
<tr>
<td>2003</td>
<td>45.4%</td>
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<tr>
<td>2004</td>
<td>53.9%</td>
</tr>
<tr>
<td>2005</td>
<td>62.5%</td>
</tr>
<tr>
<td>2006</td>
<td>63.5%</td>
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% of Those < 100

<table>
<thead>
<tr>
<th>Year</th>
<th>% Below 100</th>
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<tbody>
<tr>
<td>2003</td>
<td>33.9%</td>
</tr>
<tr>
<td>2004</td>
<td>46.9%</td>
</tr>
<tr>
<td>2005</td>
<td>62.5%</td>
</tr>
<tr>
<td>2006</td>
<td>49.9%</td>
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</table>

N= 351 473 659 749
Percentage of Patients with Controlled Blood Pressure

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>02-03</td>
<td>33.7%</td>
</tr>
<tr>
<td>03-04</td>
<td>26.6%</td>
</tr>
<tr>
<td>04-05</td>
<td>34%</td>
</tr>
<tr>
<td>05-06</td>
<td>33%</td>
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</table>

N = 561 692 1033 1136

% BP < 130/80
Impact of Outreach

# of Visits in Last Year

- 0
- 1-2
- >3

- 02-03: 26.1%, 19.6%, 1.1%
- 03-04: 54.5%, 61.7%, 3.3%
- 04-05: 81.9%, 3.3%, 71.8%
- 05-06: 81.9%, 71.8%
Conclusions:

- Patients Benefit from a Wide Range of Interventions
- Community Health Workers: Integral Role in DSMP
- Sustainability of Program
  - Utilization of Data to MCO’s
  - Additional Grant Funding
- Linkage with Other Programs
  - Healthy Weight in Women
  - Childhood Obesity Project
  - Cardiovascular and Diabetes