Diabetes Self-Management Program in Ambulatory Care settings: An innovative model

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- 6 Hospitals
- 3 Skilled Nursing Facilities
- Home Care
- Hospice
- Clinics and Practices
  - 75 employed physician practice locations
  - 485,000 visits (2017)

Population Health: ACO, DSRIP, Commercial
National Diabetes Statistics:

- 30.2 million adults (12.2% of all U.S. adults) with diabetes
  - 23 million diagnosed
  - 7.2 million (23.8%) currently undiagnosed \(^1\)
- Most costly chronic disease in the U.S.
  - 1 in 7 health care dollars is spent treating diabetes and its complications \(^2\)
  - 1% reduction in A1C lowers health care costs by $680-950/ year \(^3\)
- 95% of Diabetes care is self-care \(^4\)

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## New York State Diabetes Data & Forecasts

<table>
<thead>
<tr>
<th></th>
<th>Total Population</th>
<th>Senior Population (≥ 65 Years)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2015</td>
<td>2020</td>
</tr>
<tr>
<td><strong>Total Patients with Diabetes</strong></td>
<td>2,105,600</td>
<td>2,464,000</td>
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<tr>
<td><strong>Diabetes Complications</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>Renal Failure</strong></td>
<td>3,660</td>
<td>4,190</td>
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<tr>
<td><strong>Visual Impairment</strong></td>
<td>252,100</td>
<td>290,300</td>
</tr>
<tr>
<td><strong>Leg Amputations</strong></td>
<td>3,180</td>
<td>3,470</td>
</tr>
<tr>
<td><strong>Total Cost (2015 dollars)</strong></td>
<td>$24.7 B</td>
<td>$28.7 B</td>
</tr>
<tr>
<td><strong>Annual Medical Costs</strong></td>
<td>$17.7 B</td>
<td>$20.4 B</td>
</tr>
<tr>
<td><strong>Per Person Medical Costs</strong></td>
<td>$8,406</td>
<td>$8,279</td>
</tr>
</tbody>
</table>

1. 10.5% of NYS adults are diagnosed with diabetes. [Diabetes Rate by State, 2017](https://www.stateofobesity.org/diabetes/). Retrieved from: [https://www.stateofobesity.org/diabetes/](https://www.stateofobesity.org/diabetes/).

* Includes indirect costs: e.g., loss of productivity.
DSME is a **cost-effective, evidence-based** approach to manage diabetes:

- Reduces avoidable hospital admissions and ED visits
- Improves clinical outcomes (e.g. A1C)
- Delays/prevents the onset and advancement of complications related to diabetes
- Engages patients to increase their knowledge about the disease and **empowers** them to be active participants in their own care\(^1\)

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Goals:

• Increase the *accessibility* of high quality diabetes care in primary care settings
• Improve the *overall health* of patients with diabetes
• **Reduce** diabetes-related complications
• **Empower patients** to be full participants in their care which results in improved outcomes

Secondary goals:

• Enhance the knowledge base and skill-set of the primary care providers
• Foster continuity of care between specialists and primary care
• Adapted American Diabetes Association’s (ADA) evidence-based curriculum to meet the needs of primary care
• A large primary care site was selected as the demonstration site
• Identified patients via diabetes registry
• Stratified patients by risk / HbA1C levels
• Workflow modifications including new templates, order sets, and scripts for patients phone calls were developed
• Two mid-level primary care providers (MLPs) were selected

• Mentored by RN - Certified Diabetes Educator (CDE©) to provide DSME and become CDEs

• Medical Assistants (MAs) were trained to outreach patients

• ADA recognition achieved allowing the delivery of DSME as a billable service

• Focused on High-risk patients followed by rising-risk cohort
Clinical Outcomes

- 15% (n = 158) of all patients with diabetes in the demonstration site participated in the DSME including 33% (n = 53) of high risk patients (HbA1C > 9)
- 64% of patients with pre/post DSME lab testing had a reduction in HbA1C
- The most dramatic reduction in HbA1C was observed in patients whose HbA1C was 10 or higher
• Utilized the RN-CDE subject matter expert on the Quality team to facilitate MLPs to deliver care and education

• Expand the role of MLPs providing care in the practice settings; no additional personnel

• Motivated MLPs to become CDEs to advance their professional growth and program sustainment

• DSME program has inspired the development of a Health Coach program that will use medical assistants functioning at a higher level to engage and encourage patients with chronic conditions
Next Steps

- Expand patient access to diabetes education
  - Day and evening sessions
- Spread program to other PCP practices
- Continuous glucose monitoring (CGM) introduced
  - Better glycemic control
  - Improve patient engagement and satisfaction
• Engagement is the first step

• Empowerment is about helping patients to figure out what they can do for themselves

• “An empowered patient is one who has the knowledge, skills, attitudes and self-awareness necessary to influence their own behavior and that of others to improve the quality of their lives”

Questions?

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