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Catholic Health Services of Long Island (CHSLI)

Diabetes Self-Management Program in Ambulatory Care settings:

An innovative model

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Catholic Health Services of Long Island (CHSLI)

- 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

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Impact of Diabetes in United States

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]**

[1] Centers for Disease Control and Prevention. *Diabetes Report Card 2017*
[2] American Diabetes Association. Economic Costs of Diabetes in the US in 2017. *Diabetes Care*, 41 (5), 917-928.
[3] Wagner EH, Sandhu N, Newton KM, McCulloch DK, Ramsey SD, Grothaus LC. Effect of improved glycemic control on health care costs and utilization. *JAMA.* 2001;285(2):182-189.
[4] Funnell, M.M., Anderson, R.M. The Problem with Compliance in Diabetes. *JAMA*.2000;284(13), 1709.

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Impact of Diabetes in New York

New York State Diabetes Data & Forecasts[2]

	Total Population			Senior Population (≥ 65 Years)		
	2015	**2020**	**2025**	**2015**	**2020**	**2025**
Total Patients with Diabetes[1]	2,105,600	2,464,000	2,728,200	762,400	841,800	934,100
Diabetes Complications						
Renal Failure	3,660	4,190	4,540	1,710	1,830	1,960
Visual Impairment	252,100	290,300	316,200	104,100	111,900	121,100
Leg Amputations	3,180	3,470	3,580	1,290	1,310	1,340
Total Cost (2015 dollars)*	$24.7 B	$28.7 B	$31.8 B	$9.7 B	$10.8 B	$11.9 B
Annual Medical Costs	$17.7 B	$20.4 B	$22.5 B	$9.1 B	$10.1 B	$11.2 B
Per Person Medical Costs	**$8,406**	**$8,279**	**$8,247**	**$11,936**	**$11,998**	**$11,990**

[1] *10.5% of NYS adults are diagnosed with diabetes Diabetes Rate by State, 2017 . Retrieved from https://www.stateofobesity.org/diabetes/*
[2] New York Diabetes Data & Forecasts *Retrieved from* www.altfutures.org/diabetes2030
* Includes indirect costs: e.g., loss of productivity

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Diabetes Self-Management Education Program (DSME)

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]

Powers, M. A., Bardsley, J., Cypress, M., Duker, P., Funnell, M.M. (2015). Diabetes Self-management Education and Support in Type 2 Diabetes: A Joint Position Statement. *The Diabetes Educator*, 41(4), 417–430.

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DSME Goals in Primary Care

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

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Planning

- 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

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Execution

- 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

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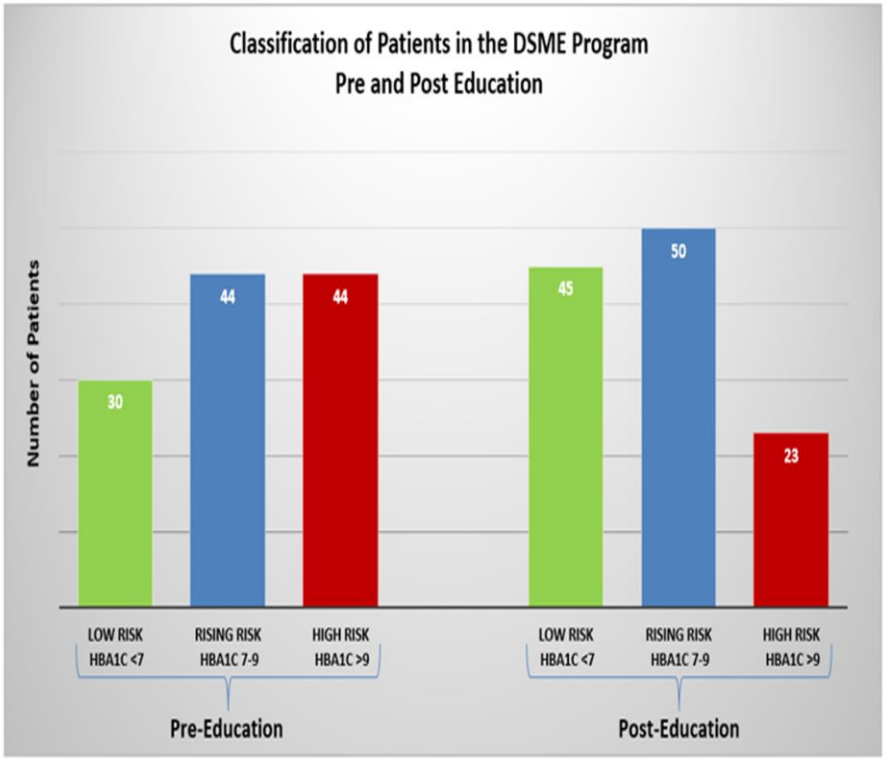
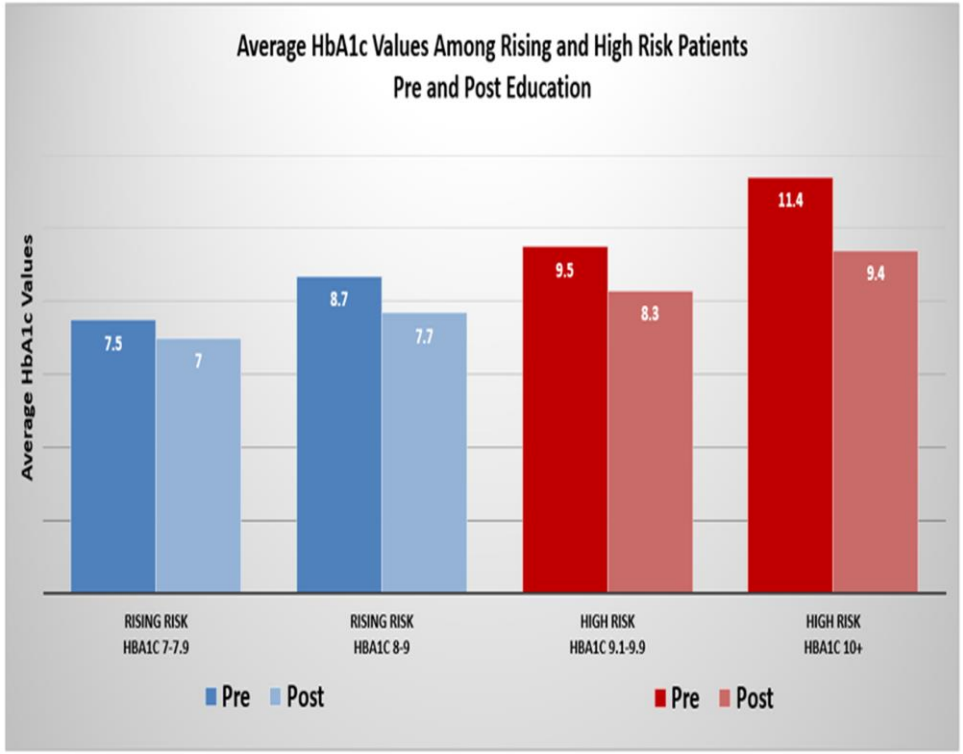
Clinical Outcomes

- 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





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Innovation & Sustainment

- 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

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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

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Engage and Empower

- 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[1]"

Funnell, M. and Anderson, R "Empowerment and Self-Management of Diabetes." *Clinical Diabetes*; July 2004 vol. 22 (3): 123-127

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Questions ?

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