"Specifically created for people with diabetes, our goal in partnering with Lirio is to move these patients from disease management to prevention using the best behavioral science, data-driven personalization, and technical capabilities that exist,"

Erin Hurlburt, M.D., Chief Medical Officer of Population Health and Community Health at Bon Secours Mercy Health

# lirio

Precision Nudging™

## CASE STUDY

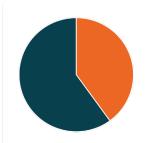
Bon Secours Mercy
Health Engages
84% Of Unengaged
Patients With Diabetes



## Tailored Interventions Drive Alignment With Primary Care and Chronic Disease Management for Unengaged Patients

The CDC's 2020 National Diabetes Statistics Report finds that over 34 million U.S. residents (10.5% of the population) are currently living with diabetes. Additionally, 1.5 million adults annually are expected to be newly diagnosed with diabetes.<sup>1</sup>

The risk factors to these individuals are further increased by the high prevalence of co-morbidities including obesity (61.3%), high blood pressure (68.4%), and high cholesterol (43.5%).



40%

Adults with diabetes have at least three comorbid chronic diseases<sup>3</sup>

## **CHALLENGE**

Managing diabetes and the related co-morbidities requires consistent physician care to monitor key factors like A1C and ensure proper medications are available to the patient.

Studies have shown that up to 3.4 million patients with diabetes lack primary care and as much as 30% will delay care due to inadequate primary care.4

Patients not utilizing consistent primary care has multiple downstream effects, straining emergency rooms and leaving patients in a higher risk state that will require more costly interventions to manage the resultant symptoms. The rate of patient admissions for people with diabetes averages 33.9% in a year.

### **OPPORTUNITY**

Bon Secours Mercy Health (BSMH), one of the nation's largest Catholic health systems, has 43 hospitals across 7 states—many of which care for an above-average number of patients with diagnosed diabetes. Recognizing the difficulty in addressing these challenges, BSMH partnered with Lirio to co-develop a Precision Nudging<sup>TM</sup> solution utilizing hyper-personalized patient communications for people with diabetes.

The solution focuses on patients with a diabetes diagnosis who are classified as unengaged in their care, driving them to schedule and attend a visit with a primary care physician (PCP) at the frequency recommended for the patient's A1c level.

The solution leverages behavioral science techniques to address the barriers people with diabetes experience with attending primary care visits, including raising awareness of the benefits to the patient and providing encouragement and goalsetting support.

### **Driving Long-Term Digital Engagement**

Given the need for continual care and management, Lirio's solution brings the ability to maintain engagement with the patient both throughout the course of the year and as their diabetes care needs change over time. Lirio's Al approach takes personalization to a new level, leveraging reinforcement learning to continually optimize for successful outcomes over time and automatically sharing data-driven insights across the patient's health journey.

To further build the connection between the patient and BSMH, Lirio included messaging tailored toward activation and engagement with BSMH's digital patient portal.



84.8%

#### Engaged

The Precision Nudging™ solution focused on engaging BSMH patients managing elevated A1C and out of clinical care recommendations

69.9%

#### **Scheduled**

Tailored interventions addressing the barriers to a consistent schedule of care moved almost 70% of these now-engaged patients to schedule a checkup

89.3%

#### Attended To Date

Hyper-personalized communications scale sustained change over multiple behaviors to drive ongoing care management

#### References

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- Jackson, B. M., Gutierrez, M. L., Relyea, G. E., Carlton, E. L., Ahn, S., Binkley, B. L., & Bailey, J. E. (2017, May 11). Unet Primary Care Needs in Diabetic Patients with Multimorbidity in a Medically Underserved Area.

## **RESULTS**

Lirio's Precision Nudging<sup>TM</sup> has successfully moved unengaged patients with diabetes to schedule and attend their diabetes care PCP visits. BSMH continues to expand the diabetes solution into additional markets to positively influence even more unengaged patients to seek their regular screenings, and Lirio's Precision Nudging<sup>TM</sup> will grow smarter as the health system launches other solutions to drive even deeper understanding of their patients' behaviors and barriers to acting on health recommendations.

- The solution paid for itself in just three months and generated 10x payback in the first year.
- In 5 months, Precision Nudging has resulted in almost 85% of patients reached attending new PCP appointments.



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