

“The partnership we have with Lirio has enabled our ministry to really up our game in how we are moving patients from reminders, to engagement, to activation.”

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 82% of Women Past Due For A Mammogram

### Lirio's Precision Nudging™ Solution:

- Reached 139,000 Past-Due Patients With Hyper-Personalized Interventions
- Converted 13,000 Patients With No Prior PCP Relationship
- Paid for Itself In Only 8 Months

According to the Centers for Disease Control, more than 33% of American women over 40

—over 22 million women—

are not attending screening mammograms on clinically recommended intervals.<sup>1</sup>

Among the documented commonality of diagnosis and risks associated with breast cancer, many women are being diagnosed at later stages which greatly increases both the 5-year mortality rate and the treatment costs.

## CHALLENGE

Breast cancer is the most diagnosed form of cancer among women in the United States, impacting nearly 1 in every 8 women. This year alone over 280,000 women will be diagnosed with invasive breast cancer.

While survivability is nearly 100% with a Stage 0-1 diagnosis, only one in five people diagnosed with Stage 4 breast cancer are alive after five years. Family history increases the risk of diagnosis by almost 2x; however, 80% of breast cancer cases occur in women with no family history.<sup>2</sup> This means many women falsely believe mammograms are not a priority for them, creating a barrier to timely screening and intervention.



The impact of early detection is clear.

Survivability also varied dramatically with a close to 100% survival rate in stages 0 & 1. That drops below 75% in stage 3 and below 25% in stage 4.

Mammograms are currently the only clinically viable method for detecting breast cancer, and early screening will save lives, increase survivability rates, and lower cost of care for health systems and patients.

# OPPORTUNITY

Bon Secours Mercy Health (BSMH), one of the largest Catholic health systems in the U.S., covering 7 states and over 1000 care locations in 2 regions, identified 140,000 women eligible for a mammogram in just one of their regions alone.

Department of Labor statistics show women make 80% of healthcare decisions for their family yet often deprioritize their own care. Anecdotal evidence suggests that once women have engaged with the health system for mammograms, they are more likely to engage with the system for other services.

▶ BSMH partnered with Lirio and their Precision Nudging solution for mammography to deliver hyper-personalized messages specifically designed to address patients' barriers to scheduling and attending their mammograms.

▶ The Lirio approach facilitates an ongoing touchpoint with patients throughout the year, engaging both empaneled (current PCP relationship within the system) and unempaneled (those without a BSMH primary care provider).

## Deepening Patient Relationships

Despite rapidly evolving protocols and barriers, BSMH focused on keeping their patients informed. Leaning into their role as a trusted source of information, BSMH worked with Lirio to update communications as needed to account for impacts on patient health priorities and timing of care.

Moreover, Lirio's AI approach uses reinforcement learning to learn and improve over time while supporting a holistic view of the patient health journey and its interdependent episodes of care.

**82.0%** ▶ Engaged

Thousands of patients received and engaged with Precision Nudging™ communications addressing their barriers to preventive screenings

**61.3%** ▶ Scheduled

In response to the tailored interventions and integrations like digital scheduling, over half of eligible women empaneled at BSMH have scheduled their mammogram so far

**96.4%** ▶ Screened To Date

As health systems seek to lessen the impact of postponed screenings, 96.4% of the women who scheduled have attended their screening and are re-engaged with their care journey

## RESULTS

In just two years, Lirio's Precision Nudging solution reached 139K patients past due for a screening and generated 4x payback. In moving them to schedule and attend mammograms, the solution paid for itself in only 8 months.

Additionally, their community-focused approach resulted in:

- 13,394 women with no in-system primary care relationship who received a past-due mammogram
- 120 of those women caught their diagnosis in a treatable stage

Continued expansion of the mammography and other Precision Nudging solutions will benefit patients across BSMH, driving a deeper understanding of patient behavior and barriers and (re)engaging them in their care.

Among patients past due for a screening

**240 women diagnosed with early-stage (0-2) breast cancer**

As compared to Stage 4 diagnosis

- ▶ Survivability increases to 93-100%
- ▶ Annual medical cost savings up to \$85K per patient

### References

1. Comparing breast cancer screening rates among different groups. Susan G. Komen®. (2021, November 10).
2. U.S. Breast Cancer Statistics. Breastcancer.org. (2021, February 4).



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