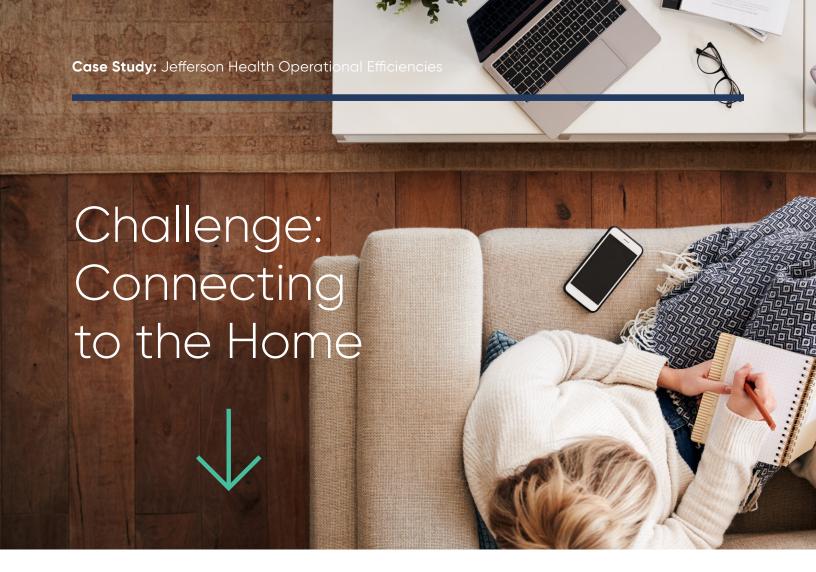# Jefferson Health
"Manages by Exception" to Extend Reach into the Home

Dina Helps Population Health Team Drive Cost Savings, Increase Outreach Capacity by 50%

Challenge: Connecting to the Home

COVID-19 exposed systemic challenges within the healthcare provider ecosystem. Faced with a limited number of inpatient beds and an ongoing shortage of nurses, health systems needed an easy way to extend care to COVID-positive patients who were recovering in their homes.

Most hospitals can't hire large care coordination or discharge teams, so they need technology to track hundreds, or even thousands, of people at scale, and do so efficiently at the health system level.

In addition to the need to manage acute conditions like COVID-19, there is a growing number of people with chronic conditions who don't need episodic care, but need to stay connected to their providers to manage their health at home. People need support - not just when they are sick, but also when they are trying hard to stay well.

Solution: Leverage Technology to Expand Outreach

> **"**
> We need to meet people where they are, especially when they're in their homes and communities. With Dina as our technology partner, we are working with our patients before a minor concern turns into a major health event.
> **"**

Dr. Kate Behan, SVP and Chief Population Health Officer, Jefferson Health

In April 2020, at the start of the pandemic, two Jefferson Health campuses (Jefferson Health – Abington and Jefferson Health – Northeast in the Philadelphia area) needed to rapidly scale home monitoring capabilities and leverage technology to connect with COVID-positive patients in their homes. The 14-hospital health system wanted a remote patient engagement tool that required little to no training, was easy for patients and care coordinators to use, and provided simple escalation routes to identify people who needed additional support.

In response, Jefferson launched Dina's COVID Care-at-Home program, using an SMS-based remote engagement tool called Dialogs, to help connect with patients every day to track symptoms related to their diagnosis.

Jefferson enrolled 3,280 patients in the COVID screening program following a positive test result or discharge from a COVID-related inpatient stay. Patients opted-in to the program and could opt-out at any time.

Digital outreach with Dialogs began with a set of symptom-specific screening questions. AI-powered care pathways guided patients to either schedule a telehealth visit with their primary care physician, wait for a live phone call from a registered nurse, and/or review mobile-friendly self-care instructions until the next check-in.

Program Expansion:
ED-to-Home

With the success of the initial launch in July 2020, Jefferson Health expanded the program to include COVID-positive patients who were discharged from the Jefferson Health – Abington emergency department (ED) and required a pulse oximeter. Five months later, the program expanded again to include patients from the Jefferson Health - Northeast ED.

As part of the program, patients were asked: "Is your reading below 92? Reply Yes or No." Based on responses, nurses were able to triage their outreach to those who needed immediate attention.

If patients were unable to take their measurements, Jefferson's RNCC team provided telephone outreach and support. Daily screenings continue until the patient opts out of the program or clinical judgment removes them from the program.

> Of the 300 patients enrolled between August 2020 and April 2021, 75% did not return to a Jefferson facility within 30 days.

Next Steps: Managing Chronic Conditions at Scale

Continuing its commitment to deliver more care at home and in the community, Jefferson Health's population health team expanded the use of Dina technology to remotely engage and monitor patients with congestive heart failure (CHF). Leveraging Dina's ability to rapidly configure and deploy its technology, CHF patients received clinically relevant, intuitive check-ins and tailored education in a matter of weeks.

Building off of the successes of the COVID Care-at-Home and ED-to Home programs, CHF remote patient engagement is expected to produce significant ROI, including a reduction in avoidable ED visits and condition-associated re-admissions.

> "
> We have a nursing shortage and a healthcare provider shortage, and no one has the workforce to adequately manage a remote patient population. Managing by exception ensures no one falls through the cracks.
> "

Dr. Maryann Lauletta, Chief Medical Officer, Dina

Dina and Jefferson:
Doing the Right Thing for Patients

Care-at-home models offer a patient-centered, cost-effective approach to improving outcomes, particularly for vulnerable people. Especially since COVID-19, many people feel safer in the confines of their own home and report greater satisfaction with the care they receive when they are in familiar and comfortable surroundings.

While interest in this type of care delivery continues to grow, not every patient is a candidate for in-home services. But for those who are interested and able to receive care on this track, there are some big benefits.

One thing is certain: in-home programs cannot flourish without nursing engagement. Dina's technology uses triggers from predictive modeling and patients to help determine in real-time who may need intervention. Nurses are critical to guide and intervene when signals indicate that an escalation is needed. Using technology to "manage by exception" ensures no one falls through the cracks.

What did we learn from sending more than 50,000 text messages to Jefferson Health patients? We were able to connect different points of care and different providers of care and align them with the same goals, all while keeping the patient at the center. And this has positively influenced outcomes and kept more patients safe and well cared for in their homes.

Jefferson's COVID Care-at-Home and ED-to-Home Programs

(April 2020-May 2021)

BY THE NUMBERS

50,695 | Messages sent to patients

12,233 | Responses reviewed by care team

5% | Responses that required escalation by care team

RESULTS

54% | Increased outreach capacity without adding staff

8,960 | Staff hours saved (the estimated time of 3 full-time employees)

$396,670 | Salary dollars reallocated by using Dina technology