

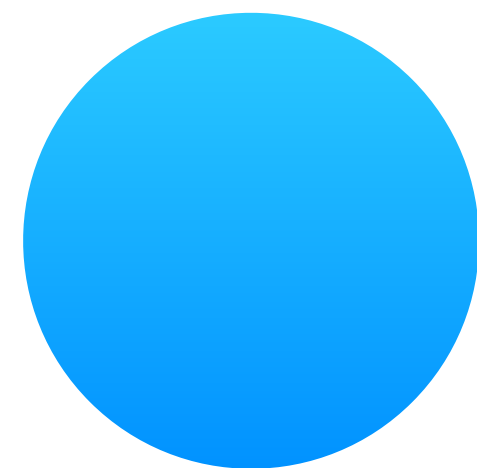
**caremessage**<sup>TM</sup>

NIHCM Presentation

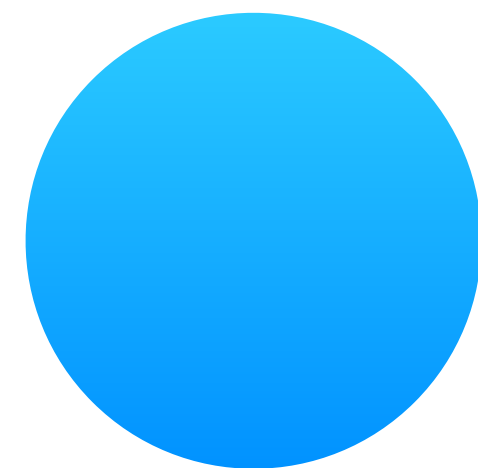
Those most at-risk and underserved include low-income, uninsured patients with following conditions:

Diabetes/Metabolic Syndrome  
COPD/Emphysema/Lung Cancer  
Hypertension/CHF and  
Anxiety/Depression/Loneliness

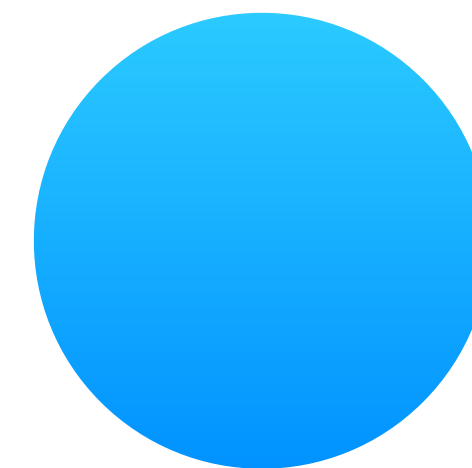
Resulting in....



Higher usage of emergency services



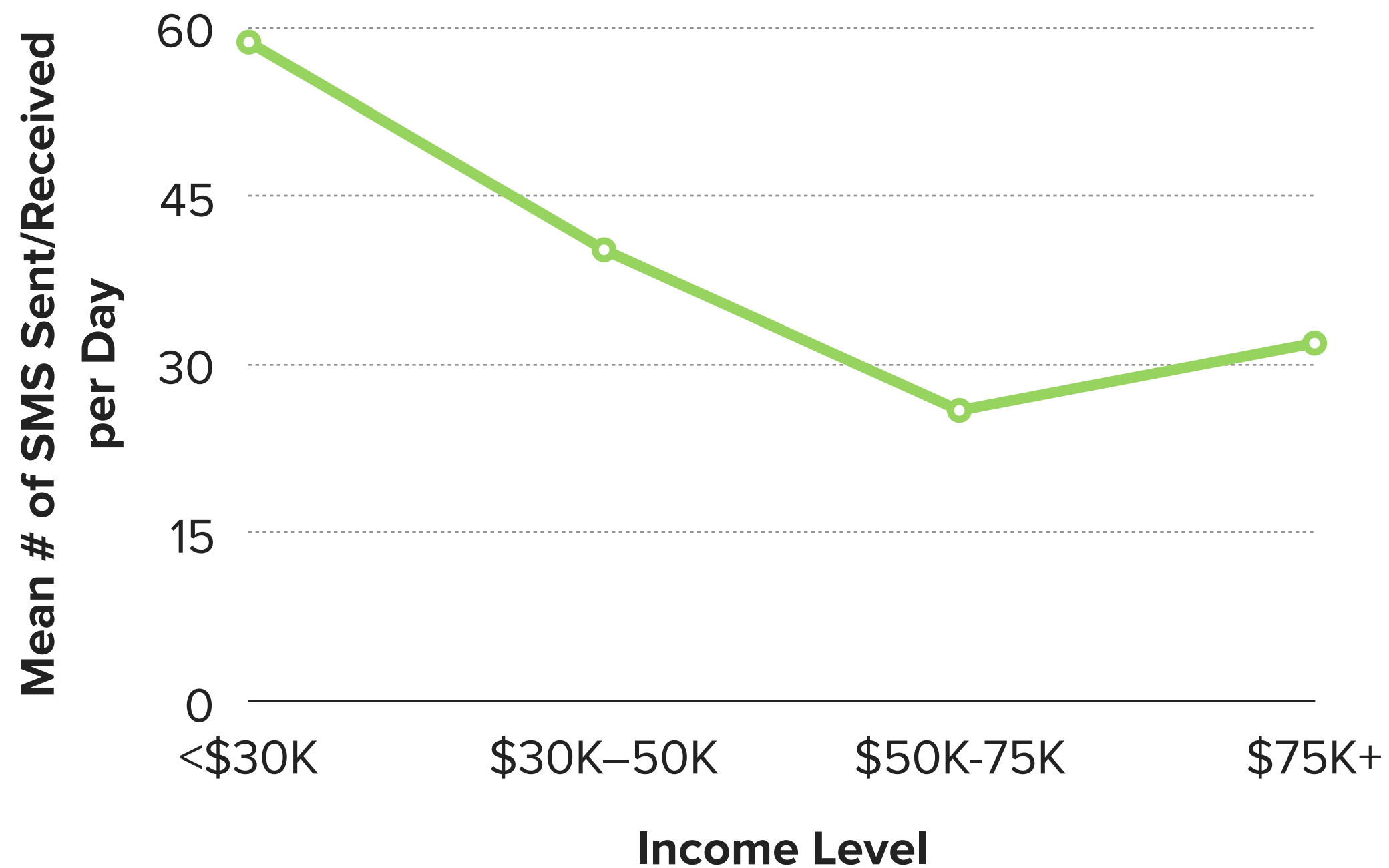
Greater risk of premature mortality



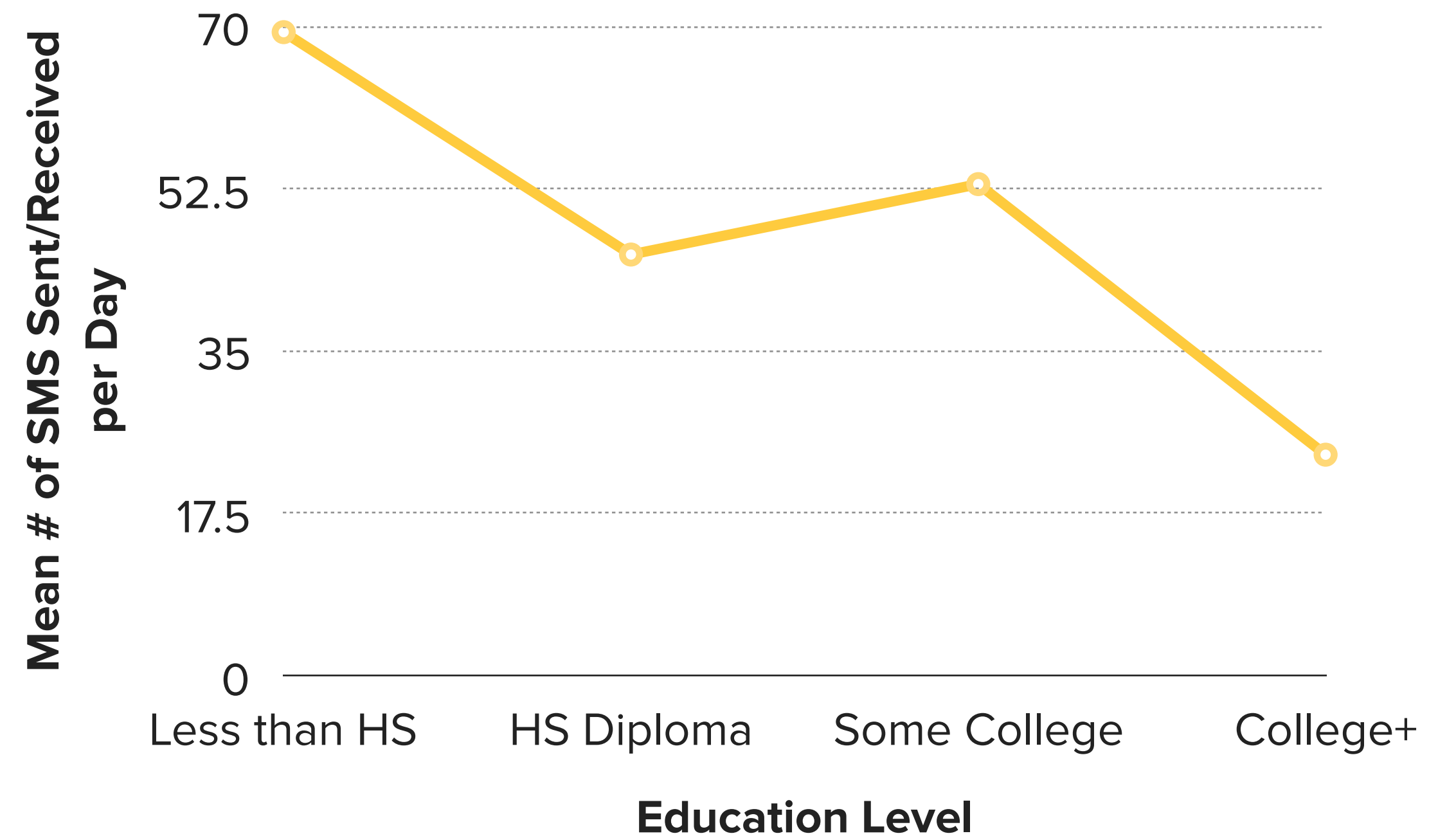
Significant preventable costs

Text messaging usage is 2-4x higher in lower income, less educated populations, and has a 99% open rate

USAGE BY INCOME LEVEL



USAGE BY EDUCATION LEVEL





## Health Affairs

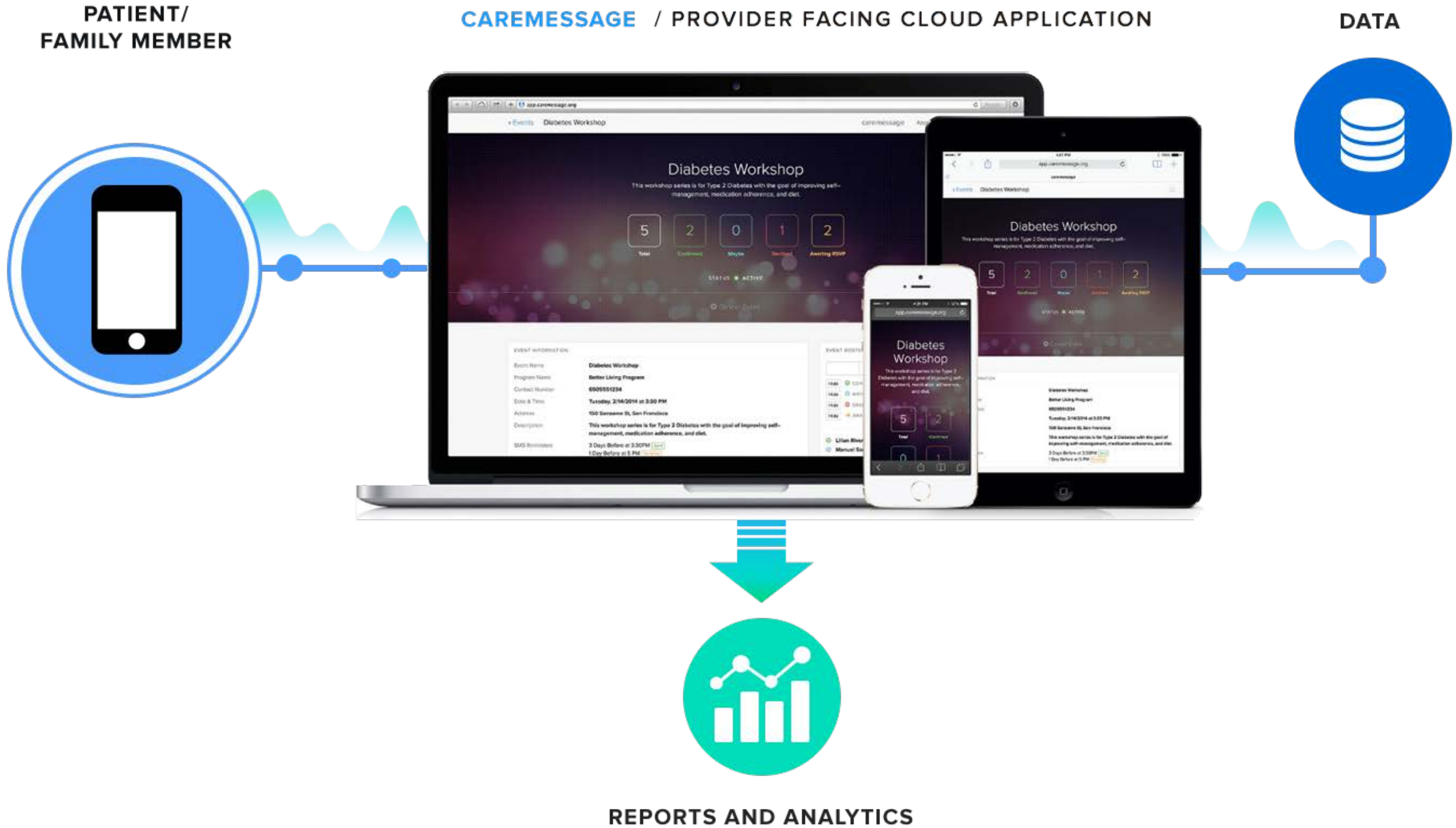
By Shantanu Nundy, Jonathan J. Dick, Chia-Hung Chou, Robert S. Nocon, Marshall H. Chin, and Monica E. Peek

## Mobile Phone Diabetes Project Led To Improved Glycemic Control And Net Savings For Chicago Plan Participants

**ABSTRACT** Even with the best health care available, patients with chronic illnesses typically spend no more than a few hours a year in a health care setting, while their outcomes are largely determined by their activities during the remaining 5,000 waking hours of the year. As a widely available, low-cost technology, mobile phones are a promising tool to use in engaging patients in behavior change and facilitating self-care between visits. We examined the impact of a six-month mobile health (mHealth) demonstration project among adults with diabetes who belonged to an academic medical center's employee health plan. In addition to pre-post improvements in glycemic control ( $p = 0.01$ ) and patients' satisfaction with overall care ( $p = 0.04$ ), we observed a net cost savings of 8.8 percent. Those early results suggest that mHealth programs can support health care organizations' pursuit of the triple aim of improving patients' experiences with care, improving population health, and reducing the per capita cost of health care.



CareMessage is an intelligent cloud-based software that transforms patient communication in underserved healthcare settings



CareMessage has built a sophisticated care management solution for this new era of healthcare



## FOR THE PROVIDER

An intuitive, web-based interface to manage patients, groups, appointments, and events.

## FOR THE IT MANAGER

A cloud-based solution with no on-site software and simple data management interfaces.

## FOR THE PATIENT

Personalized, interactive health messages designed to educate, remind, and motivate.

CareMessage's various products help fundamentally transform ongoing patient care

## **Reducing No-Shows through Reminders and RSVPs**

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Providers can reduce no-shows by using automated text and voice reminders, automatically collecting RSVPs.

## **Automated Data Collection Pre and Post Visit**

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Providers can collect and report relevant survey and clinical data, and receive notifications about adverse changes in patients' health.

## **Automated Patient Followups Pre and Post Visit**

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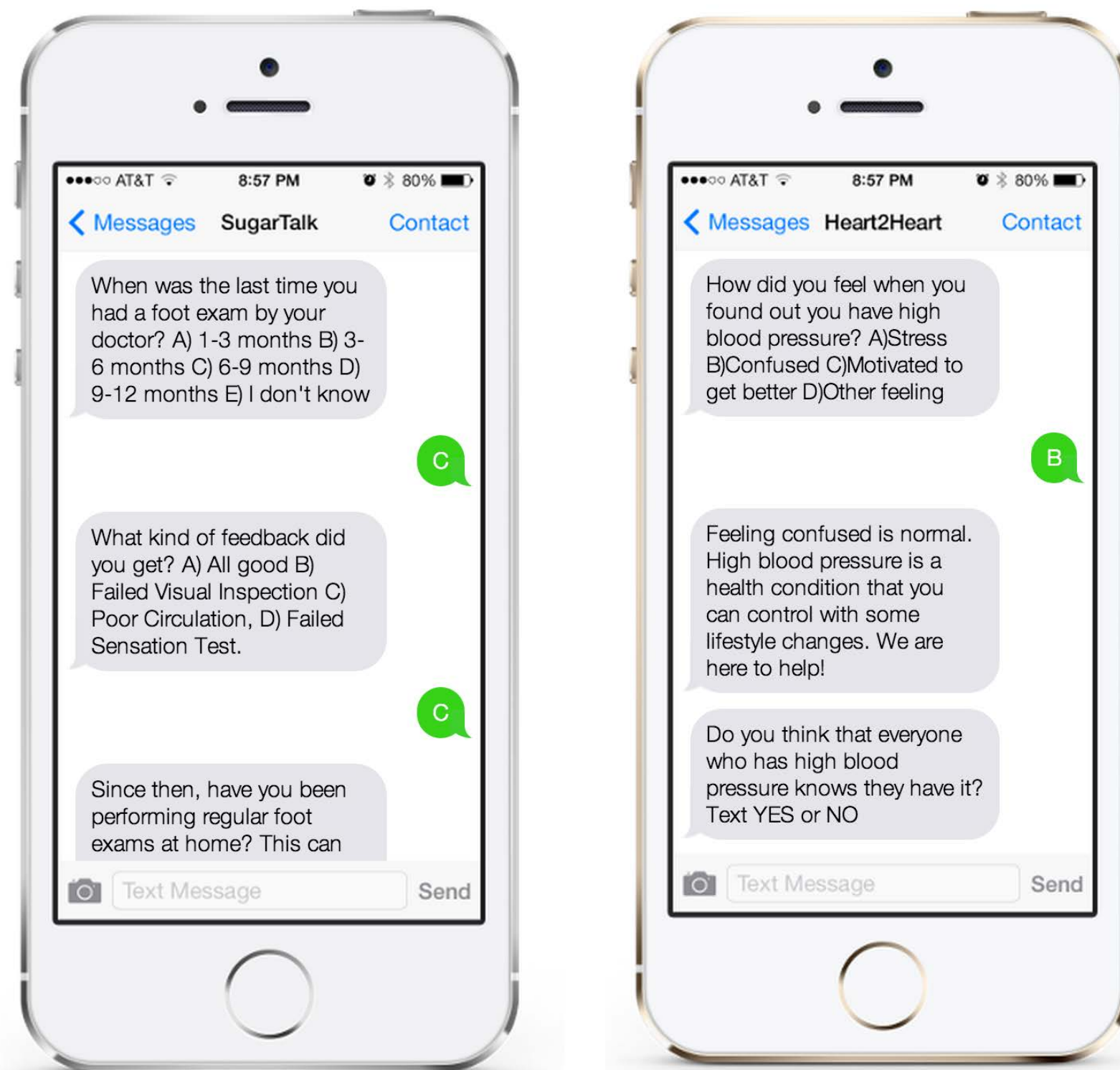
Providers can automatically check-in with patients regarding specialty referrals, prescription re-fills etc, improving recall rates for clinic services.

## **Automated Disease Management for High Risk Patients**

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Providers can automate aspects of population health management by integrating our communication capabilities within existing population health management systems.

CareMessage's patent-pending mobile engagement programs enable providers to fundamentally transform disease management



## SUPPORT

Guide patients through the process of managing a difficult chronic health condition.

## EDUCATE

Provide patients with individualized educational programs tailored to their current health needs.

## EMPOWER

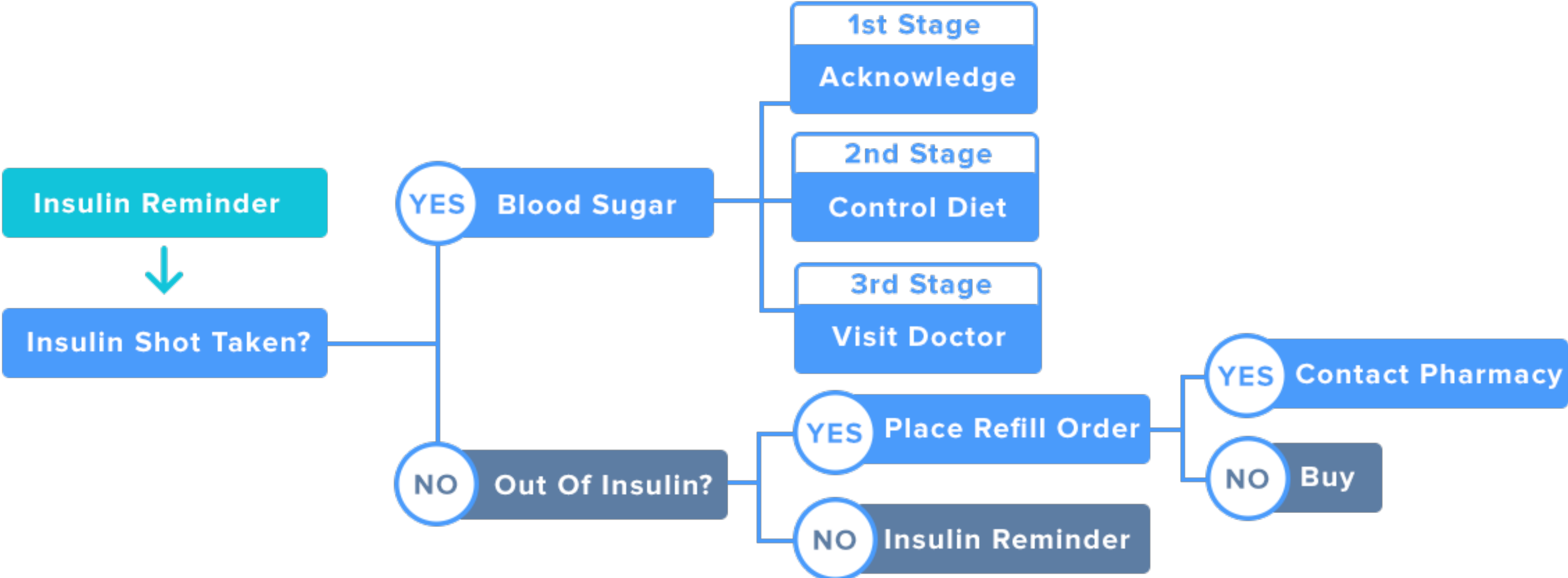
Give patients the tools and education they need to take control of their own health- care.

To see an interactive overview of our programs including more sample messages and our design process, visit <http://caremessage.org/programs>



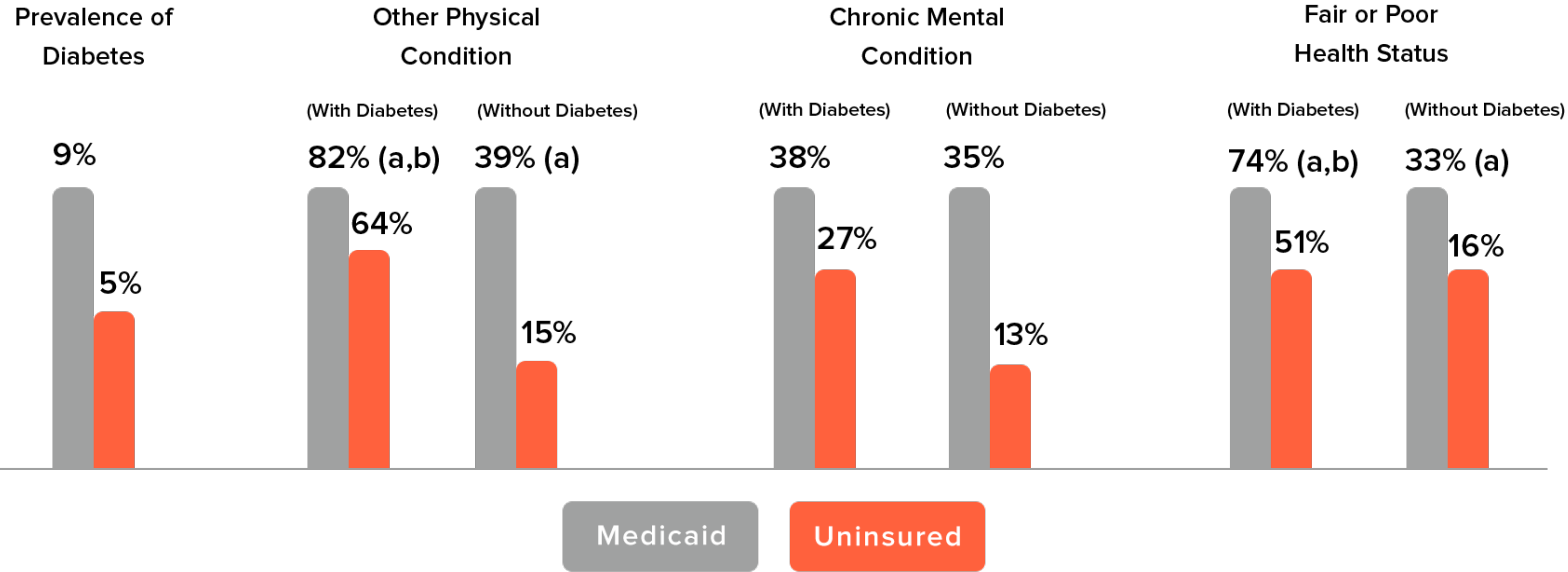
1. SMARTER ENGAGEMENT

Our patent-pending software pushes the boundaries of automated disease management to create ‘smart’, personalized feedback loops.



2. TARGETING CO-MORBIDITIES

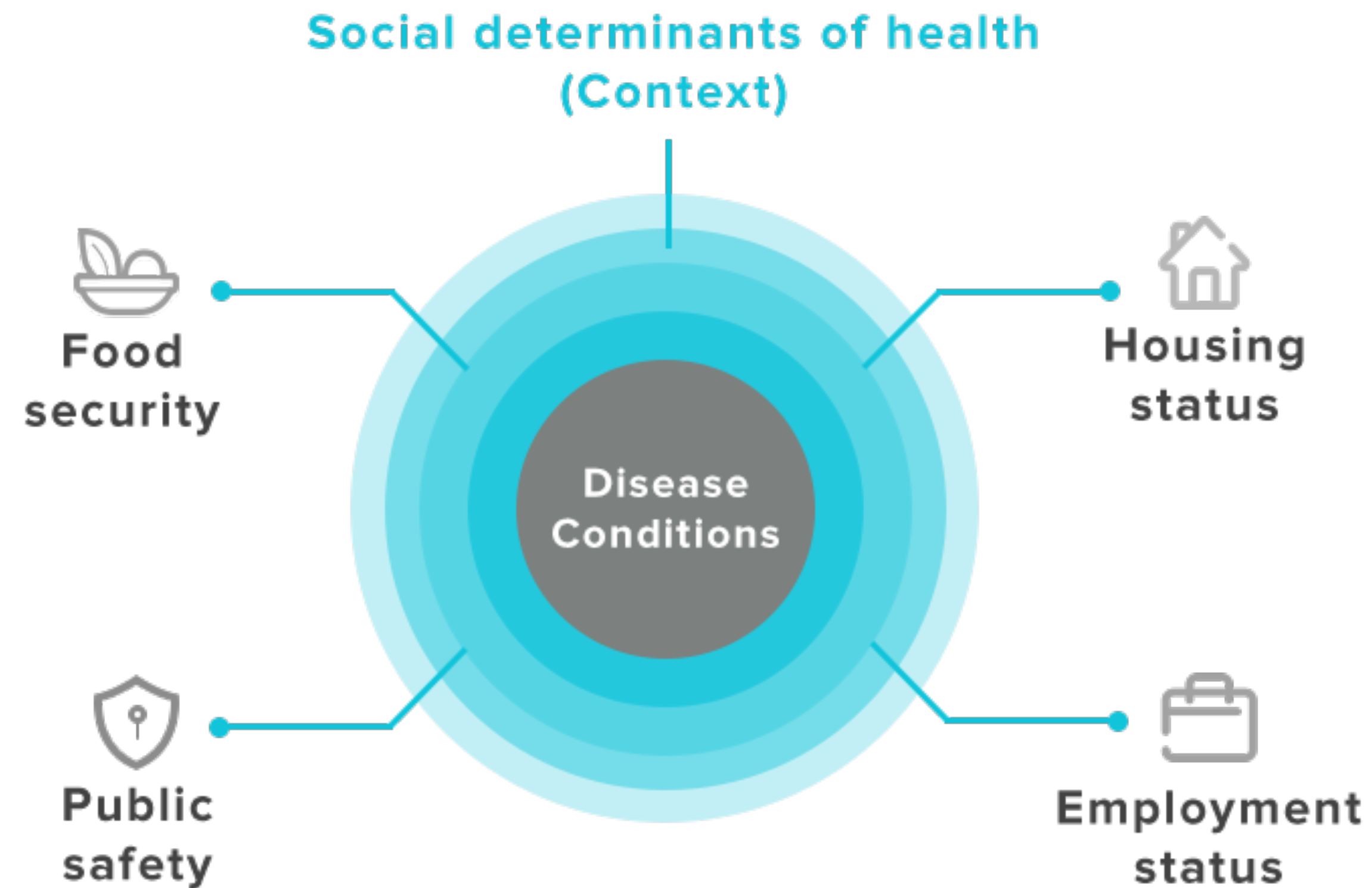
We go beyond the current ‘one patient, one disease’ paradigm in disease management, realizing that our target population serves from multiple co-morbid conditions, especially mental health disorders



(a) statistically significant difference from uninsured population,  $p < 0.05$ , (b) statistically different from Medicaid population without diabetes,  $p < 0.05$ . Source: Kaiser Family Foundation analysis of 2009 Medicaid Expenditure Panel Survey data

## 3. SOCIAL DETERMINANTS OF HEALTH

We focus on a patient population with unique challenges stemming from social determinants of health, and therefore, it is much more targeted to this market.



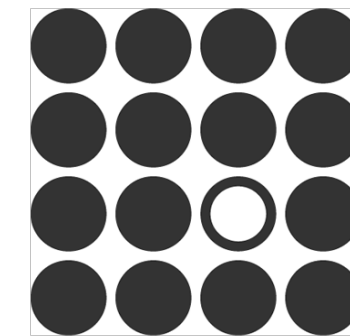


CareMessage employs a unique, interdisciplinary approach to patient engagement and disease management



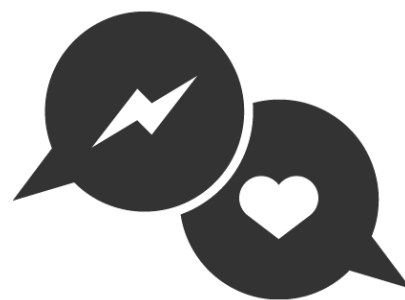
## HUMAN CENTERED DESIGN

We tailor our interactions to the unique circumstances of our patients and their caregivers.



## FOCUS ON EXTREME USERS

Developed for patients with multiple co-morbidities, and other social challenges.



## TAILORED ENGAGEMENT

Every single message has a unique purpose: to incite a behavior or collect data.



## CLINICAL EXPERTISE

We use motivational interviewing and values-based affirmation which are clinically proven approaches to behavior change.

# IMPACT

IMPROVED FOLLOWUP WITH CARE

A Managed Medicaid Health Plan based in CA



2 X



Doubled their ability to reach members to help them with Medicaid re-enrollment utilizing CareMessage over traditional modes of outreach (phone calls, letters etc.)



[The results are] encouraging...here was a high rate of individuals with usable cell phone numbers who did indicate that they needed help with their enrollment.

- Enrollment Coordinator



Large Federally Qualified Health Center in Los Angeles

>40%

saw a >40% recall rate for patients that had been dropped off their eligibility list (403/1001, 40.26%), compared to a 15% baseline recall rate.

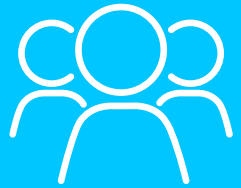
This is projected to result in >\$40,000 in additional reimbursement revenue for the health center, along with improved health outcomes for patients that are seen at the health center.



REDUCED NO-SHOWS



A Free Clinic in Boston, MA



1.8 X

Uninsured patients enrolled in CareMessage were 1.87 times more likely to attend their appointment



Preliminary data suggests that reminders may reduce the Clinic’s no-show rates. We plan to expand this pilot by offering CareMessage to all of our patients.

- Senior Clinical Research Coordinator



Community Health Clinic in Brenham, TX



20%

Reduced no-shows by 20% (relative to baseline) after implementing CareMessage



I like to be able to make a quick personal contact with a patient about an issue or information. I like that they can reply to text and they feel like they have had a personal time with you in only a few seconds.

- Deborah, Nurse Practitioner

## INCREASED PATIENT ENGAGEMENT/BEHAVIOR CHANGE



A Packard Foundation-funded evaluation at a free clinic in San Francisco

94%

of diabetic and hypertensive patients reported that CareMessage helped them better manage their health

71%

of participants reported sharing the text messages with family and friends

“

In short, it has been a great experience for our patients to be more linked in to their home clinic on appointments, health education tips regarding their chronic disease and knowledge on different programs that we offer. This works well for our population who live busy lives and don't always have time to answer their phones.

- Jaime, Care Coordinator



Stanford-led and NIH-funded pilot study

94%

of sedentary patients increased their physical activity over the study period (based on accelerometer data) using CareMessage

“

This pilot demonstrates feasibility of text messaging with our target population, the acceptability of the format, the technological capability of our partner, and the value of refining content to facilitate use by the target population.

Citation: King, A et al. Innovative Physical Activity Interventions for Overweight Latinos. Stanford University. Grant #: 1R01DK10201601A1



## TOMASA C.

Hotel Worker, Married with two kids

• ON MOBILE TEXT MESSAGES •

“It helps me when I get the messages.”

“Sometimes it only takes one word if you're down to elevate yourself.”





CareMessage is a 501(c)3 organization with a number of major blue chip institutional and individual philanthropic investors.

**Institutional:** Google.org, the Pershing Square Foundation, Y Combinator, Stanford, the Packard Foundation, Draper Richards Kaplan Foundation, Echoing Green; **Individual:** current and former executives at Google, Facebook, Goldman Sachs, Ares Management, US Venture Partners, Johnson and Johnson, Agilent Technologies, Three Arch Partners and Stanford Health Care.

