

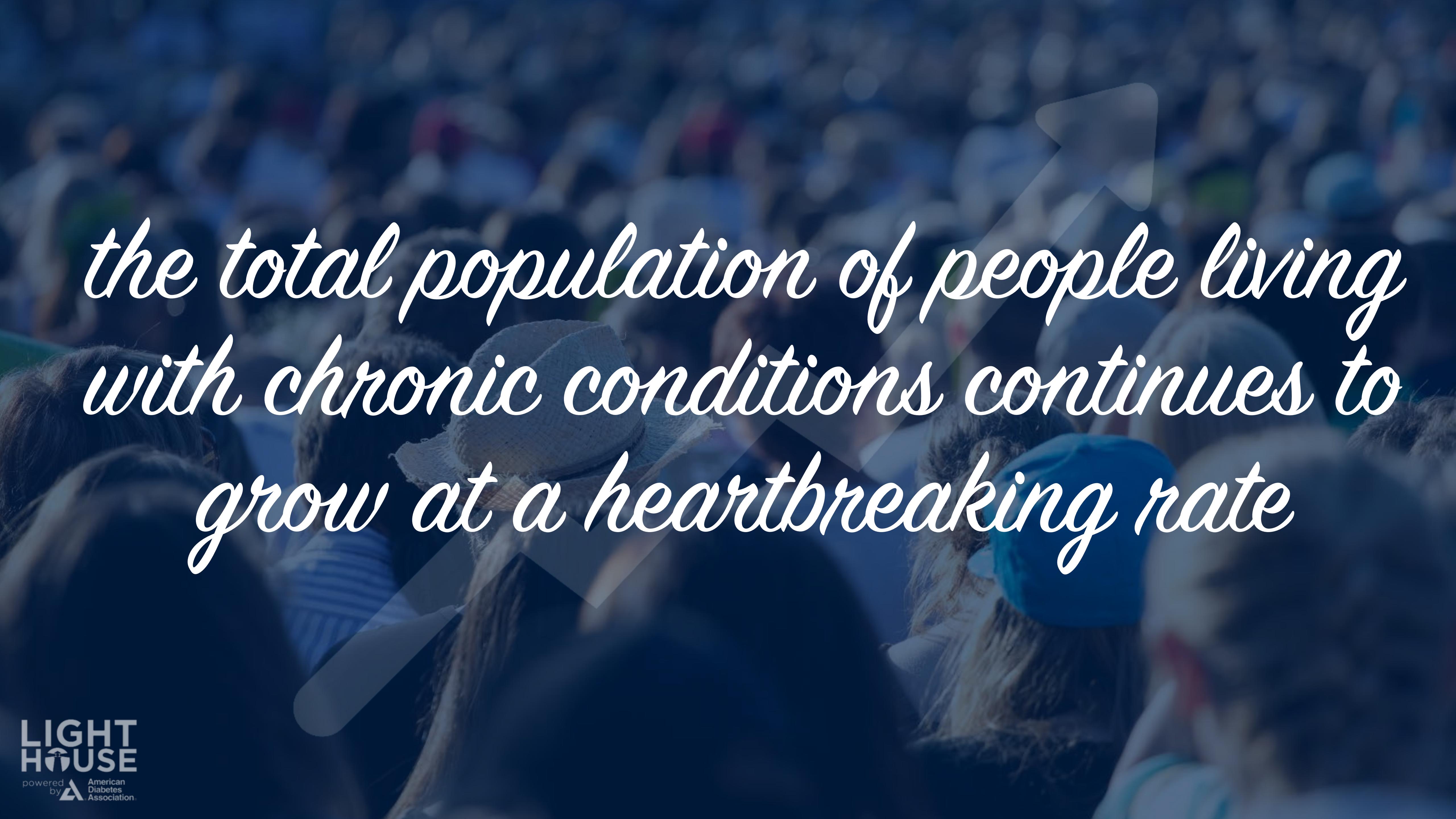


# LIGHT HOUSE

powered by  American Diabetes Association®

Provider User Experience  
Challenge





the total population of people living  
with chronic conditions continues to  
grow at a heartbreaking rate

# Within the current EMR environment, providers struggle to easily answer two questions...



1 WHO WITHIN MY POPULATION MIGHT NEED MORE HELP IN THEIR CHRONIC HEALTH JOURNEY?

2 HOW CAN I CLEARLY COMMUNICATE TO A PATIENT "HOW ARE YOU DOING" AND "WHAT DO YOU NEED TO DO"?



# In our patient research, we received some very specific feedback...



We interviewed over FIFTY patients either newly diagnosed or not-committed phase of living with Diabetes

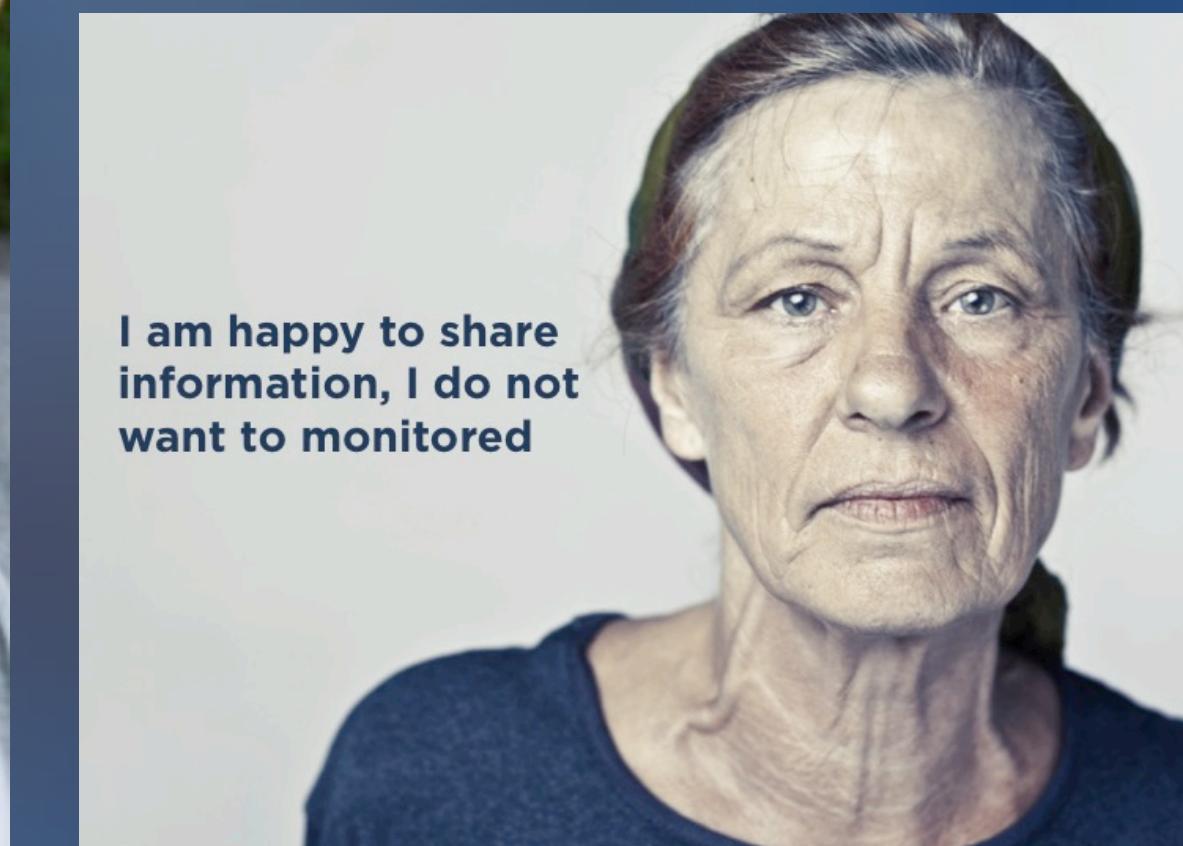
HERE IS SOME OF WHAT WE HEARD



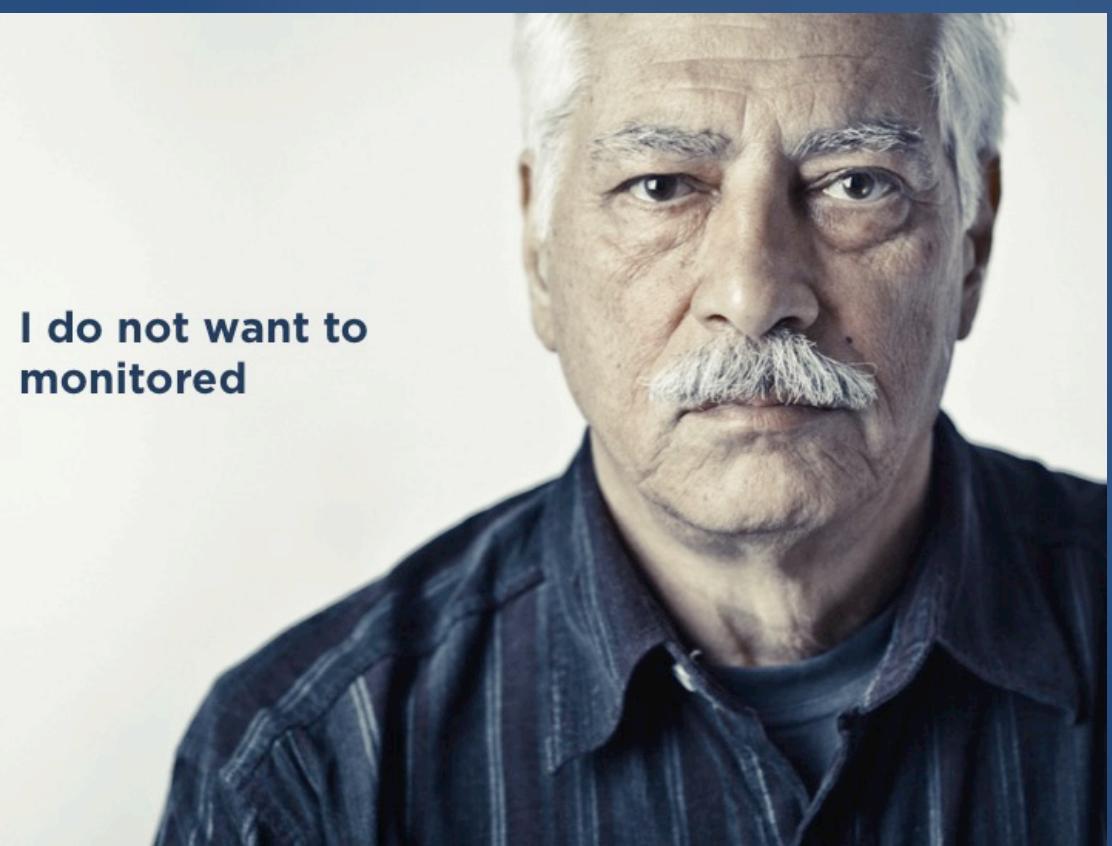
#1: Big print please, and big buttons  
#2: I don't really care about fancy statistics, I just want to know "how am I doing?"



Enough with the graphs and charts. How about just green, yellow, red, and holy crap you need to call the doctor?



I am happy to share information, I do not want to monitored



I do not want to monitored

# We are partnering with the ADA to help doctors deliver better care to their chronic patients

- EMR-integrated tools to identify opportunities for care, develop chronic care plans and communicate to patients
- Nurse/educator/advisor teams to support care between appointments
- Patient education programs to put data collection in "context"
- Qualifies doctors for CMS 99490 (~\$42/patient/month)
- Joint sales and promotion

# THE BUSINESS



In the next **10** minutes, two people in the US will die from diabetes. **1** person will lose a limb. **35** people will hear for the first time that they have diabetes and 2 out of 3 of them will eventually have a diabetes related heart attack.

**Diabetes** is the **#1** word that appears on death certificates in the United States. Dozens of studies beginning with the DPP quantify the immense benefit of even slight lifestyle changes, yet more than **80%** of people living with diabetes do not follow even basic ADA guidelines for care.

Resources flow to acute patients in chronic care, and the average 8 minutes a GP spends with a patient does little to stop the progress of chronic conditions.

**LIGHTHOUSE** can be a hospital or doctor group's **#1** tool to drive value based care in chronic conditions. Almost no care group is set up to handle the requirements of coordinated care at scale, or have in place the ability to learn with each patient interaction. **LIGHTHOUSE** is the solution.

# Our story to doctors is very simple

- High, we're **LIGHTHOUSE**, partners of the **American Diabetes Association**, and we'd love to help translate more of your great doctor instruction into real patient action through some Coordinated Care services
- We're integrated into your EMR, and our program is designed to be as operationally invisible as possible
- We're going to help your patients manage against a care plan, and deliver "light monitoring" data back to your EMR
- Our service qualifies you to bill CMS 99490, at \$42/patient/month after a 5-minute enrollment that can be done by your receptionist
- A typical family doctor should make an incremental \$250,000 PLUS deliver higher quality care

# Opportunity Report

**NEAR TERM** Medicare has introduced a new reimbursement code (99490) around coordinated care of chronic conditions. Just like the **EMR** incentives of the past five years, it is driving a critical industry strategy (interoperability and cost reduction). But also like the **EMR** program, few large hospitals (or even small ones) can staff or operational manage a program of this size and make the economics work. We know because we're working with one of the largest hospital groups in California following on to their initial self-launch.

The incentive is **~\$500/patient/year**. To someone like Sutter Health, that's about **\$200MM** in incremental revenue towards the health of their patients. But even more important, it is a funding source to build a critical base of knowledge around how tech plus human care programs can drive health change. Lighthouse is building the definitive body of **digital/human care knowledge** to support accountable care.

**It's big.**

# You can't accomplish anything in health by yourself.

powered by  American Diabetes Association®

The ADA is our side-by-side partner in **LIGHTHOUSE**. They review every patient and provider program, have skin in the game, bring us into major health and corporate partnerships and are marshaling about 300K passionate volunteers.

They bring instant credibility with health institutions and brand recognition with patients.



We just got selected to be part of their initial “accelerator class” to find the future of pharma



Alsoooooo, in their first class to discover new models of engaged digital care



Allscripts™

We won their last hack-a-thon head to head with a direct competitor. You have to be in the EMR to win.



Last year we got the top award for provider-facing cardiology tools at their innovation sessions

vator  
splash

We just took first in a Bay Area health startup showcase from a competitive field of 250+ startups

# LIGHTHOUSE : how the parts fit together

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Diabetes  
Association.



## PROVIDERS/Digital

Our web- and tablet-based experiences connect to the EMR data store to surface opportunities for care and manage the LIGHTHOUSE population



## PATIENTS/Digital

The **LIGHTHOUSE** mobile experience is one part chronic care bootcamp, one part graduate program in self management with a focus on diet, physical activity, adherence and logging.

Data collected here against care plan goals makes it way back into the PCP EMR



## PATIENTS/Human

The **LIGHTHOUSE** care team is a mix of nurses, diabetes educators, nutritionists and counselors that call our patients each month to support the patient care plan.

## CARE TEAM

Patients have the ability to give access to their health record with controls on record sections, read/write and access length

# Any provider solution must feel like a natural part of the provider/patient workflow to get traction

We have live versions of **LIGHTHOUSE** for several EMRs with true two-way sync where LIGHTHOUSE builds to the EMR...





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Association®

The full program is also available through APIs for integration into existing programs...

[api.lighthouse247.com/enroll](http://api.lighthouse247.com/enroll)

[api.lighthouse247.com/glucose](http://api.lighthouse247.com/glucose)

[api.lighthouse247.com/FHIRsync](http://api.lighthouse247.com/FHIRsync)

[api.lighthouse247.com/AHStandards](http://api.lighthouse247.com/AHStandards)

[api.lighthouse247.com/adherence](http://api.lighthouse247.com/adherence)

[api.lighthouse247.com/status](http://api.lighthouse247.com/status)



# EMR struggle #: Who within my population might need more help in their chronic health journey?

- Even before the current burst of patient generated data, EMRs are packed with an overwhelming amount of information
- “Navigation” has barely progressed past “name search” and pre-baked reporting templates
- LIGHHOUSE enables providers to drill down on their population based on trends (e.g., whose BP is going up?) or current condition (e.g., who this week has an A1C > 8.0?) to identify opportunities for care
- More important, LIGHOUSE takes internal and external data (e.g., Fitbit, blood glucose, carb counting, home BP) and translates that data into the “context” of health — for example, we map internal + external data against the ADA standards of care, so instead of building a chart of Fitbit steps, we translate that input against recommended minutes of physical activity per week from the ADA Standards of Care
- We have surveyed a deep list of providers to understand how to make this most valuable (e.g., don’t “live report” blood glucose, that creates an obligation even if there is patient error)



# EMR struggle 2a: How can I clearly communicate to a patient “how are you doing”

- Sometimes the provider challenge is using the patient data in the EMR to drive an understandable story for the patient
- We operate an API endpoint that will translate a CCDA/FHIR patient record into a patient-friendly (PDF) instance of a health record — we offer summaries for full health records, labs and care standards from the ADA, AHA and COPD foundation

**LIGHTHOUSE** powered by American Diabetes Association

+ Dave Vockell

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May 10, 2016

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## STANDARDS OF CARE

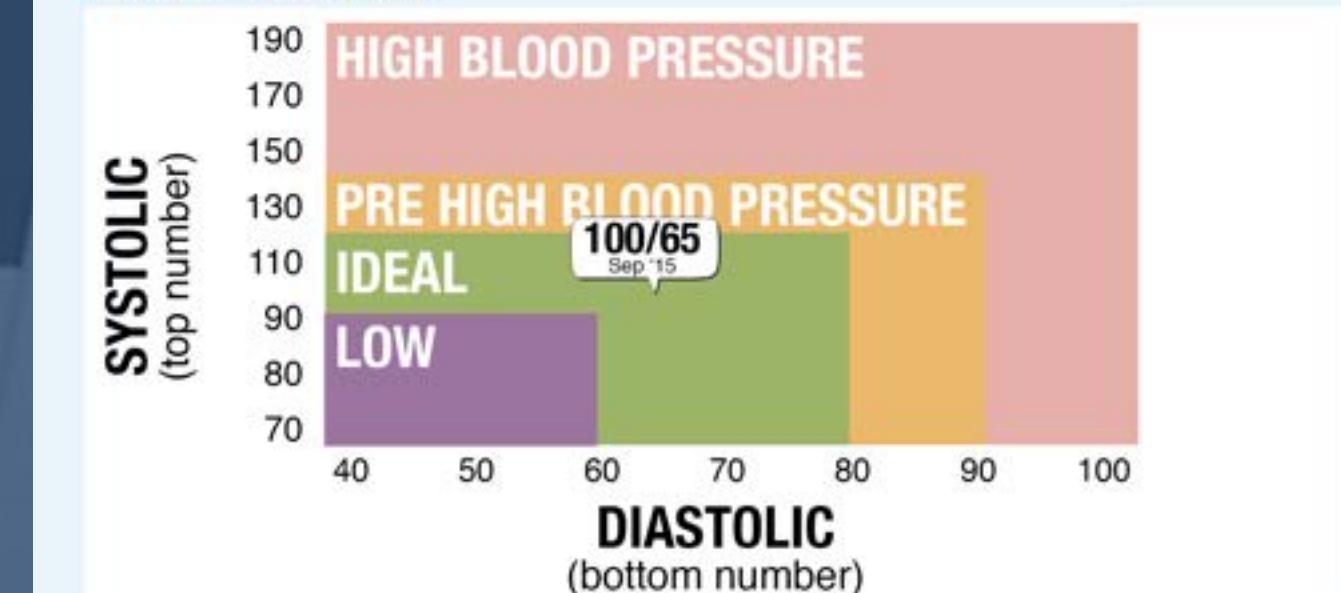
Guidelines from the American Diabetes Association (ADA) describe what should happen with your diabetes care throughout the year. These guidelines are called the **Standards of Care**. They list what you and your doctor need to do to take care of your diabetes. For example, some things, such as your blood pressure, should be checked every time you see your doctor. Other things, such as a dilated eye exam, should be done once a year.

### A1C (%)



The A1C is a blood glucose test that may also be reported as estimated average blood glucose (eAG). It tells you what your average blood glucose levels have been for the past 2 to 3 months. It does this by measuring how much glucose gets attached to red blood cells. Because new red blood cells are always being made to replace old ones, your A1C can change over time as blood glucose levels change.

### Blood Pressure mm Hg

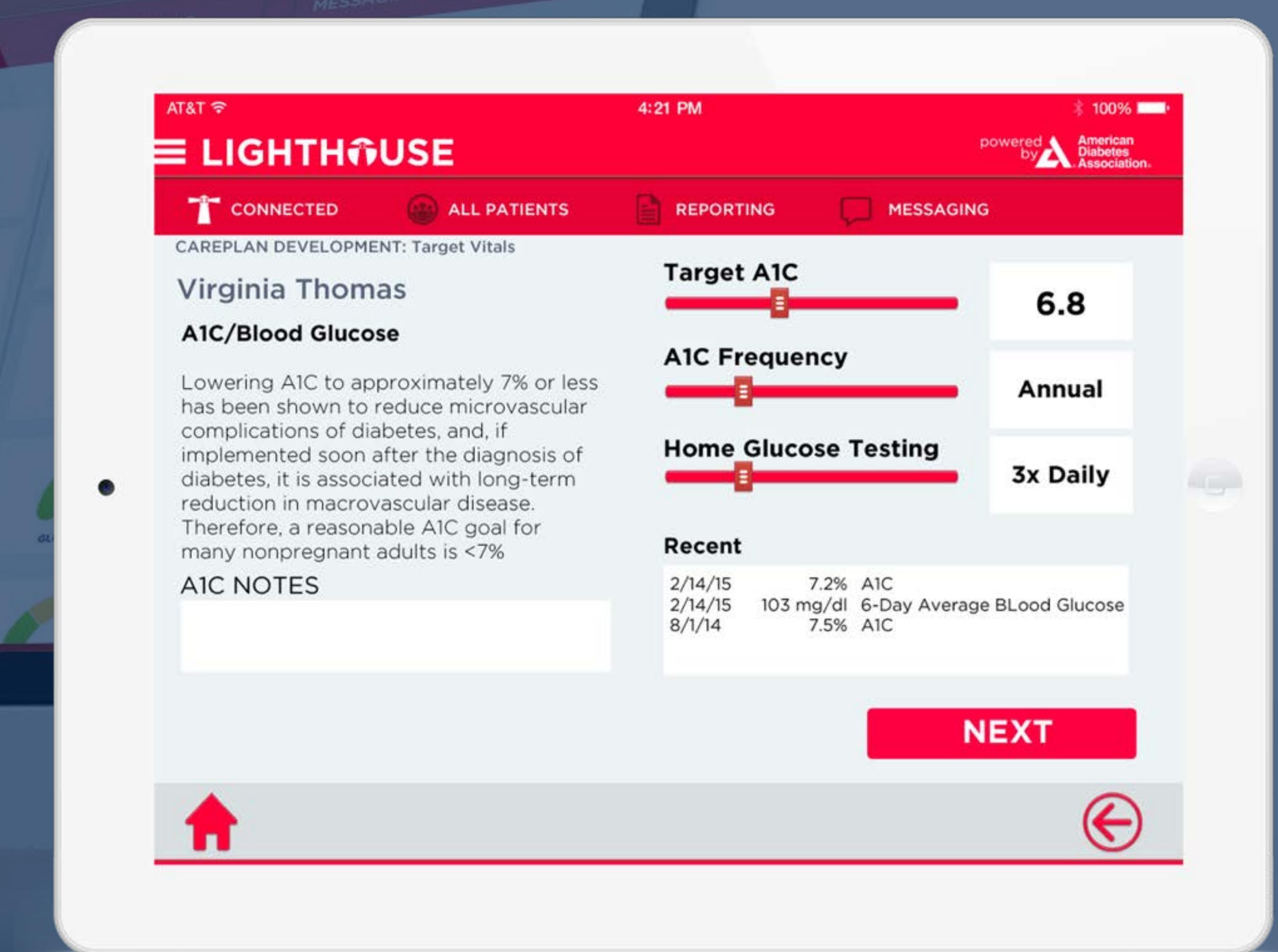


Blood pressure is the force of blood flow inside your blood vessels. Your doctor records your blood pressure as two numbers, such as 120/80, which you may hear them say as “120 over 80.” Both numbers are important.

The first number is the pressure as your heart beats and pushes blood through the blood vessels. Health care providers call this the “systolic”

# EMR struggle 2b: How can I clearly communicate “what do you need to do”?

- For the patient, a clear care plan begins with the context of “what are my numbers”, followed by “what are my goals” and “how am I going to get there”
- We facilitate the care plan articulation and presentment through the EMR integrated LIGHHOUSE



To improve data collection from patients, we put it in the context of health program - people do not want to be monitored, they want understanding



# Best user-testing data lesson so far: cool to us doesn't make it great

- We connect to all the usual suspects for patient generated data - Fitbit, withings, HealthKit
- No one has made great inroads into increasing logging of blood glucose levels
- We built something super cool that read the numbers off the meter screen into the app
- **Users hated it**
- They also met our AppleWatch version with a “so what...”



# Economics in perspective: Part I

1 patient = ~\$250/year for Lighthouse

LIGHT  
HOUSE

powered by  
American Diabetes Association.

16  
Lighthouse Diabetes Program



Doctor splits Medicare  
\$42/PPM with Lighthouse

PILOT 1  
24% Conversion

PILOT 2  
84% Conversion



Practice Value

\$135K/year



\$475K/year

# Economics in perspective: Part 2

A local IPA with just over 200 relevant care providers could generate significant revenue over the next 12 months

**Brown + Toland**

**130 Family Doctors**

30K Medicare Patients

**84 Cardiologists**

45K Medicare Patients

\$6MM

\$9MM

24 Month  
Ramp

# FORECAST: Revenue + Drivers

over the next 12 months, **LIGHTHOUSE** will grow to serve 100K+ people living with diabetes (<1% of market)

Doctors

Enrolled Patients  
(000s)

Revenue  
(\$000s)

Q3

Q4

Q1

Q2

TOTAL

137 Total Lighthouse Population  
80 TREND 30 DAY ACTIVITY RATE  
250

600 APPROVED PLAN  
1,400

120

15 STATUS BLOOD PRESSURE  
2

50 STATUS GLUCOSE LOGGING

\$75 \$500 \$1,900 \$5,100

\$7,575

# FORECAST: Expenses

- The majority of our costs are directly tied to revenue (e.g., more patients = more nurse coverage)
- We have already added a significant “scale multiple” to our nursing team
- Even at current low scale, we break even on a patient in 60 days
- For underserved patients and non-medicare patients struggling with chronic conditions, we have negotiated all of our content licenses to serve these groups for free

# Going to Market

**TARGET**  
**90K**  
**30MM**

► **\$17B**  
► **\$250B**

Medicare Chronic Care Incentives  
cost of US Diabetes

We are testing a combination of sales channels ranging from doors opened at the largest hospitals by the American Diabetes Association to native EMR solutions to inside sales teams packed with ex-pharma reps

# TECHNOLOGY

- We offer/require Business Associate agreements to all of our provider partners
- Allscripts integration requires a significant security review, and we have met all the requirements ranging from persistent AES256 encryption (unique key per provider generated in accordance to NIST 800-133) to well-articulated breaking glass audit trails
- Each quarter we update our HIPAA compliance assessment against 45 CFR § 164.300
- We hold de-identified versions of patient health records from the EMR and patient generated data from sources ranging from HealthKit to wearable APIs to manual entry
- Most of this data has no “home” in an EMR, so we run a parallel data set that resides in a HIPAA compliant AWS environment and we keep copies of patient HIPAA release forms with our service and with the doctor

# WHAT'S NEXT

- To improve the ability of providers to translate a ton of EMR and patient-generated data we will continue to add “context” in the form of recipes that translate data into information, like the ADA Standards of Care, to support provider insight and patient understanding
- We continue to expand our EMR coverage and are seeking partners to work with across a number of EMRs
- We have opened our API to other innovative data sources (e.g., a connected insulin pen) and are putting in place quality and security measures to include them in the patient story
- Our current care programs cover diabetes, heart and COPD and we are expanding our content to address a larger list of conditions



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