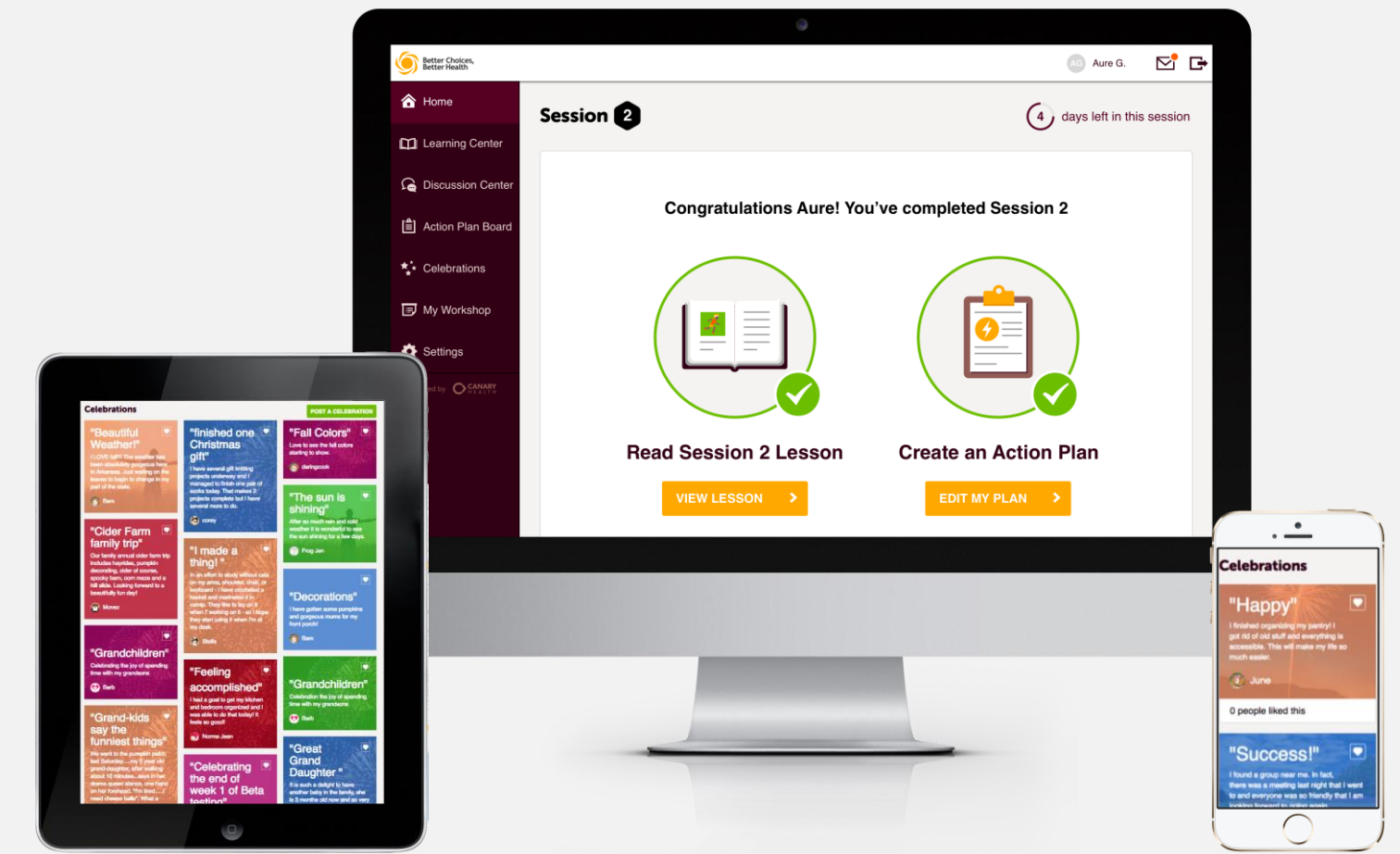


# Canary Health Introduction

June, 2019

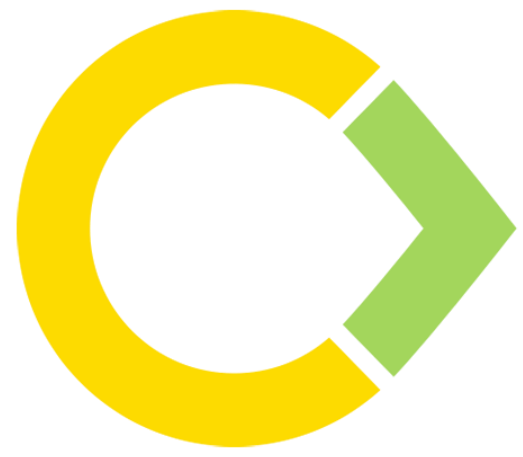
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**CANARY**  
HEALTH®

# Outline

- Canary Health Intro
- Increasing self-efficacy
- Better Choices, Better Health
  - Overview
  - Demo
  - outcomes
- Building Better Caregivers
- Virtual Lifestyle Management (DPP)
- Discussion



**CANARY**<sup>™</sup>  
HEALTH

# Digital Therapeutics Leader

- **Mission:** Increase self-efficacy
  - Improve quality of life
  - Decrease the frequency and severity of chronic conditions
  - Reduce healthcare costs
- Delivering at scale
  - More than 70,000 lives impacted



# Mission: Increase Self-efficacy

Perceived self-efficacy is defined as people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives. Self-efficacy beliefs determine how people feel, think, motivate themselves and behave.

- Albert Bandura 1994

The basic premise of self-efficacy theory is that people's beliefs in their capabilities to produce desired effects by their own actions are the most important determinants of the behaviors people choose to engage in and how much they persevere in their efforts in the face of obstacles and challenges.

- James E. Maddux 2000

# Increasing Self-Efficacy:

1. Accelerates health behavior change (e.g. adherence)
2. Catalyzes healthy lifestyle modification (e.g. diet)
3. Reduces depression, anxiety & stress-related disorders
4. Diminishes social isolation & loneliness
5. Improves health program uptake & system navigation

Which improve quality of life, reduce the incidence, prevalence and burden of chronic conditions and decrease healthcare costs.



# Canary Health - Delivering at Scale

10,000 participants in 2018 across 22+ clients and partners





Better Choices,  
Better Health®

# Extends Population Health

- 25-30 participants
- 6-week peer-led workshop
  1. Tailored self-discovery and education
  2. Guided action planning
  3. Group interactions and support
  4. Peer facilitation and coaching
- Graduates are coach moderators/facilitators



Complements and extends existing population health  
& chronic condition management programs



## Exclusive digital version of Chronic Disease Self-Management Program (CDSMP) Originally developed at Stanford University

- Originally developed at Stanford Patient Education Research Center
- 3+ decades of research from Dr. Kate Lorig and team
  - Over 1 million participants
  - Worldwide deployment in 30 countries; 17 languages
- Research team deeply engaged with Canary health and service evolution



# BCBH Engages & Delights Participants

**42  
NPS**

**50-60%  
Complete  
Rate**

**80%  
Greatly  
Increase  
Confidence**



# Demonstration



**Better Choices,  
Better Health<sup>®</sup>**

- Demo from Health 2.0 Conference: <https://goo.gl/Av6R5g>
- User story: <https://vimeo.com/192045797>

# Drives Healthy Behavior Change Improves Clinical Outcomes

**16%**  
Increase  
Adherence

**43 Min.**  
Increase  
Weekly  
Exercise

**1.27%**  
A1c  
Reduction

**27%**  
Decrease  
Depression

# BCBH Works

## Reduces Healthcare Costs

**\$815**  
**12-month**  
**savings**

**3:1**  
**12-month**  
**ROI**

# And the Program Works at Scale

- 4 Major Studies – 13 peer-reviewed articles
  - Diverse populations: Arthritis, Diabetes, Depression, rarer conditions, multiple chronic conditions
- 2014-2016 Anthem-Stanford study
  - Significant Clinical Impact
    1. Decreased A1C 0.45% at 12 months
    2. Decreased A1C 1.27% at 12 months (Initial A1C $\geq$ 9%)
    3. Reduced incidence of Depression 27%
    4. Improved Medication Adherence by 16%
    5. Increased Exercise 43 minutes Per Week
  - Significant utilization reduction and cost-savings
    1. Reduced 12-month all-cause utilization and costs
    2. Reduced ED, inpatient and outpatient services
    3. Reduced 12-month total healthcare costs by \$815
    4. Delivered 3:1 return on investment



Benefits of Diabetes Self-Management for Health Plan Members: A 6-Month Translation Study  
- Lorig, KL, et; J Med Internet Res 2016;18(6):e164 doi:10.2196/jmir.5568

A Diabetes Self-Management Program: 12-Month Outcome Sustainability From a Nonreinforced Pragmatic Trial - Lorig, KL; J Med Internet Res 2016 | vol. 18 | iss. 12 | e322

Evaluation of a Diabetes Self-Management Program: Claims Analysis on Comorbid Illnesses, Health Care Utilization and Cost – Turner, et al, J Med Internet Res 2018 | vol. 20 | iss. 6 | e207



# Building Better Caregivers



Originally developed by Stanford University in collaboration with Veterans Administration.

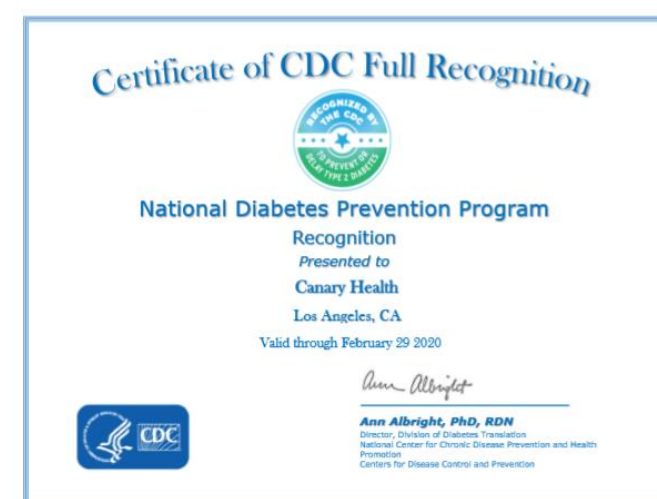
Proven effective at reducing caregiver stress, improving caregiver health & improving care partner health (reducing hospital days).

## Six-Week Workshop

- Led by two trained facilitators with caregiving experience.
- Online peer group of 20-30 caregivers.
- log on 2-3 times per week. Total time spent 2 hours a week. No upper limited to time spent online.
- Facilitators help guide the workshop, facilitate discussions, and provide support.
- Deployed since 2012 by Veteran's Administration
- Served-to-date: 6,000 caregivers

# Virtual Lifestyle Management (VLM) online Diabetes Prevention Program

- Year-long digital lifestyle change & weight loss intervention based on NIH's DPP
- 16 weekly core / 8 monthly maintenance lessons
- Behavioral goal-setting, planning and tracking
- Digital coaching – secure messaging, moderated chat
- Group dynamic
- Launched in 2006 (currently version 6)
- More than 45,000 users
- CDC fully recognized Diabetes Prevention Program



# Thank you



**Adam Kaufman PhD**

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