CANARY^M HEALTH

Better Health. Lower Costs.

We are the leader in digital health self-management.

OUTREACH TO OUTCOMES, ACTIVATING PATIENTS TO LOWER COSTS

<complex-block>

- Introduction to Canary Health
- Desired outcomes at population level
- Self-management Support
- From outreach to outcomes
- Discussion

AGENDA



Neal Kaufman MD MPH Founder & Chief Medical Officer nkaufman@canaryhealth.com



Empower Self-Management

"Self-management relates to the tasks that an individual must undertake to live well with one or more chronic conditions. These tasks include gaining confidence to deal with medical management, role management, and emotional management."

1st Annual Crossing the Quality Chasm Summit

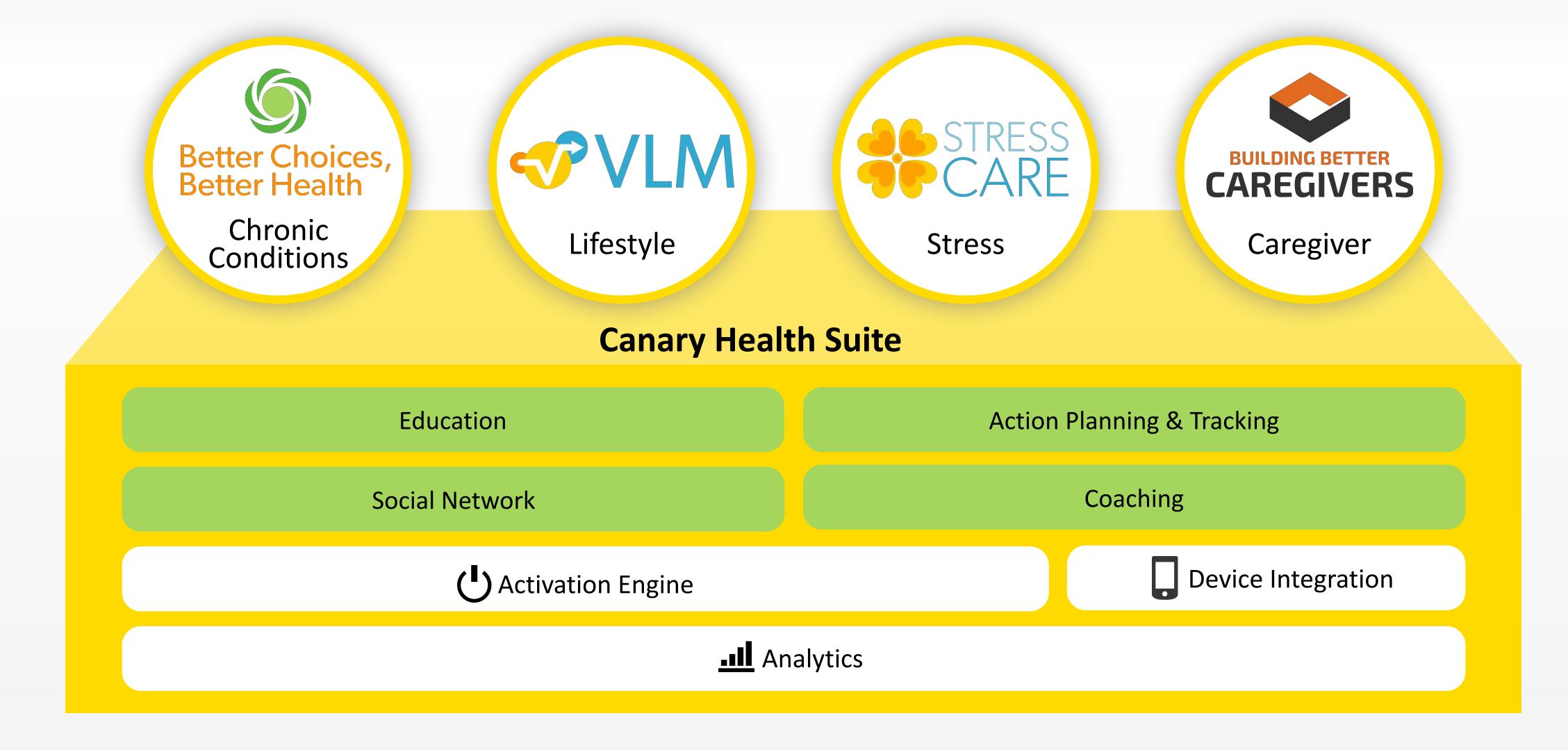


"Working with Canary Health, we can help individuals improve their self-management skills, develop healthier behaviors and improve their health."

Canary Health Client

BEHAVIOR CHANGE INTERVENTIONS

Broadest suite of evidence-based proven digital health self-management interventions





THINK OF SOMEONE IN YOUR LIFE...

5-10 years before they became very sick from a chronic condition



THE PERSON IN MY LIFE



My Dad's Story



CAPACITY TO MANAGE LIFE AND DISEASES IS KEY



Health is a Resource for Everyday Life

- How and where we live our lives determines when and how we die
- Behaviors determine health outcomes
- Trajectories for our life are being reset every day



OUTCOMES:





WHAT RESULTS ARE YOU LOOKING FOR?

START WITH THE END IN MIND.

HOW WOULD YOU LIKE TO...?



HOW WOULD YOU LIKE TO...?



HOW? SELF-MANAGEMENT SUPPORT

FOUR APPROACHES TO VALUE-BASED CARE

Clinical Management

Delivery System Design

Self-Management Support is The Missing Piece

Self-Management Support

Insurance Design



CAPACITY TO SELF-MANAGE IMPROVES OUTCOMES



"Self-management relates to the tasks that an individual must undertake **to live well** with one or more chronic conditions. These tasks include gaining confidence to deal with **medical management, role management, and emotional management.**"

1st Annual Crossing the Quality Chasm Summit (2004)



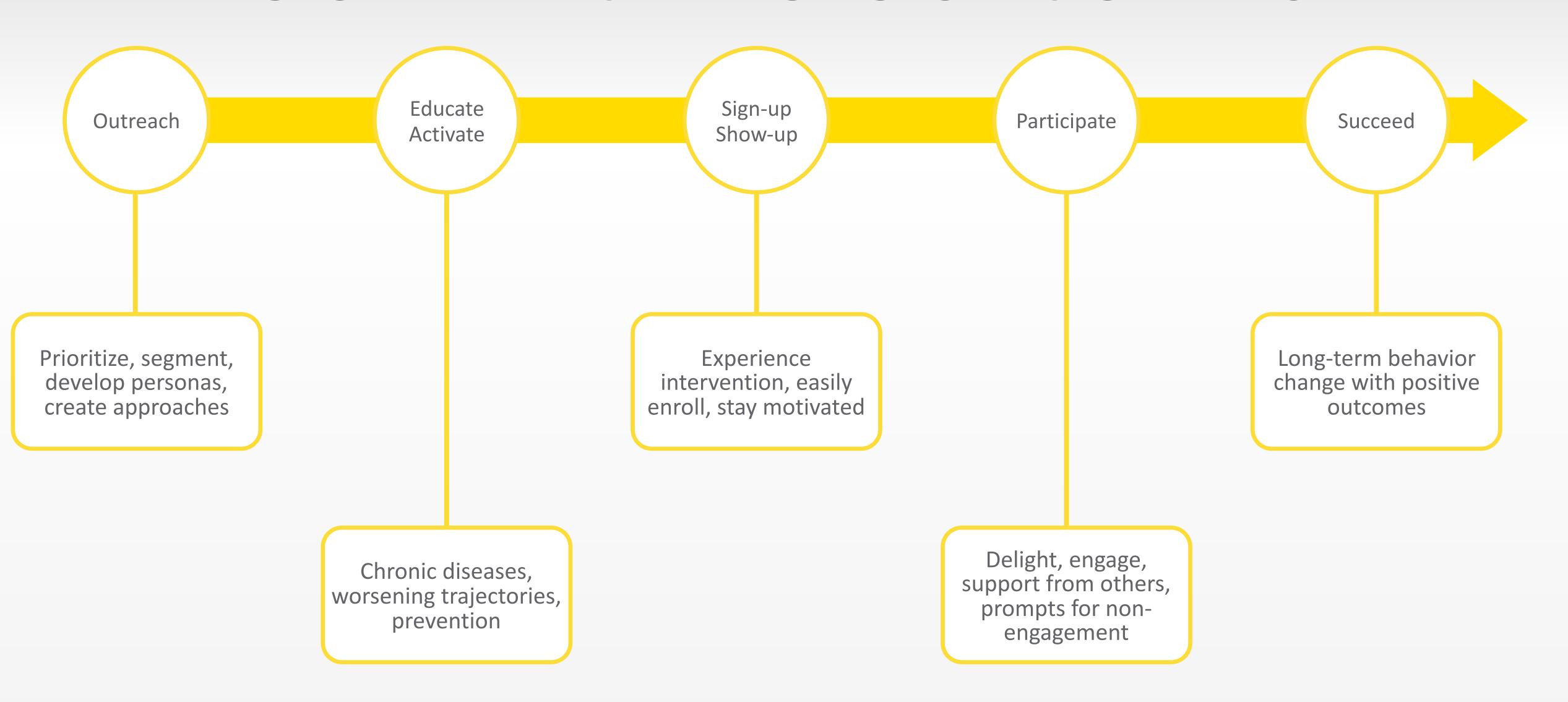
SELF-MANAGEMENT SUPPORT WORKS

People with chronic diseases who are confident and practice selfmanagement experience improved health status and use fewer healthcare resources.

J. H. Hibbard, J. Greene, R. Sacks et al., "Improving Population Health Management Strategies: Identifying Patients Who Are More Likely to Be Users of Avoidable Costly Care and Those More Likely to Develop a New Chronic Disease," Health Services Research, published online Aug. 23, 2016.





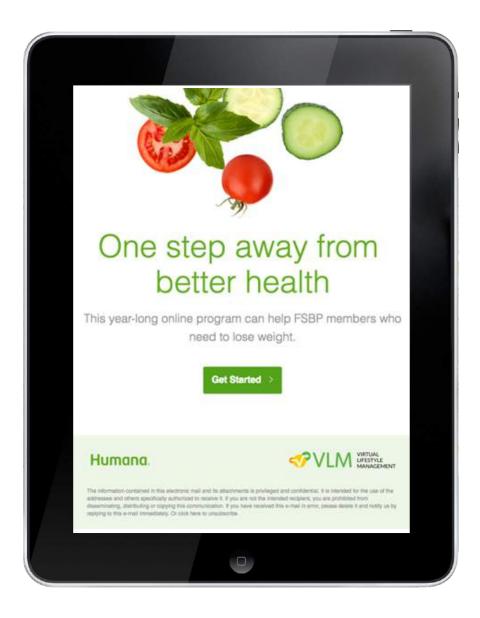


OUTREACH TO OUTCOMES



Email & Mail campaigns





OUTREACH TO OUTCOMES







OPEN TO ALL EMPLOYEES

EAT BETTER. EXERCISE MORE. LOSE WEIGHT.

Join VLM for the support, guidance and tools you need to build healthy habits that last a lifetime.





A CDC-recognized Diabetes Prevention Lifestyle Change Program, VLM is an effective to to prevent or delay type 2 diabetes. These programs can also lower your risk of having a heart attack or stroke, improve your overall health, and help you feel i

KP.ORG/FEDS

SPONSORED BY KAISER PERMANENTE.

YOU SET YOUR GOALS, WE'LL GET YOU THERE.

BCBH IS HELPING PEOPLE...





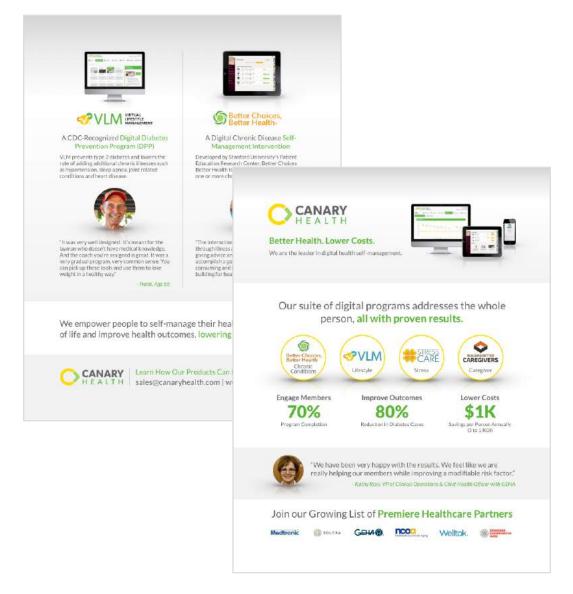


CHANGE YOUR LIFE T Get started at pebb.enroll.selfma

OUTREACH TO OUTCOMES

Branded Print Collateral









Better Choices, Better Health		A Stanford Ur	niversity Works	hop to help you manage your health.
Registration				
WORKSHOPS			_	Better Choices; Better Health is
	t a workshop you'd like to atte	and	- <u>1</u>	a program offered at no cost to you. Enroll in one of our upcom-
Select A Date	*			ing workshops! Workshops are 6 weeks long, and offer new activities each week
CONTACT INFORMATION			~	Receive Your FREE Workbook!
Please enter all the informatio			U/	A workbook will be mailed to the address you provide. Program
First Name Type Here	Last Name Type Here			reminders and updates will be send by email.
Email	Aboutero			
Type Here				
Street Address				
Type Here				
City	State	Zip Code		
Type Here	Select One *	Type Here		
User Name	ow will be used to create your a	account.	?	Remember the Username and Password you create. They will be required to sign in to the Workshop.
Type Here				
Password	Confirm Password	t		
Type Here	Type Here			
Password Hint				
Type Here				
	d agree to the Consent & Terms of Use	SUBMIT		

Custom Registration Pages





OUTREACH TO OUTCOMES

A personalized healthy lifestyle program brought to you by Humana.

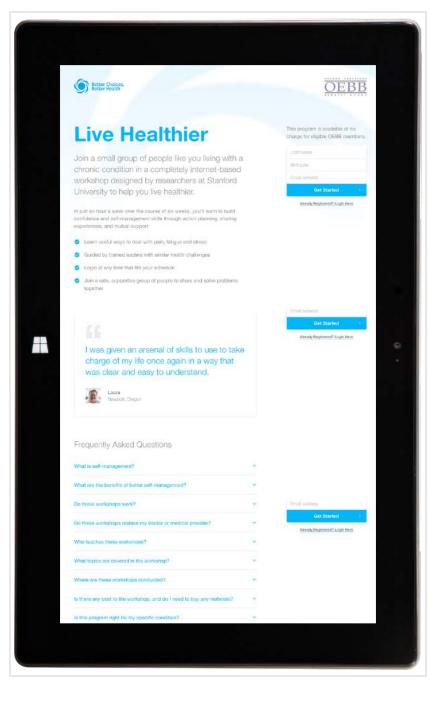
Need Help? Contact support@vlmservice.com or call (844) 213-6262

Getting Started with VLM

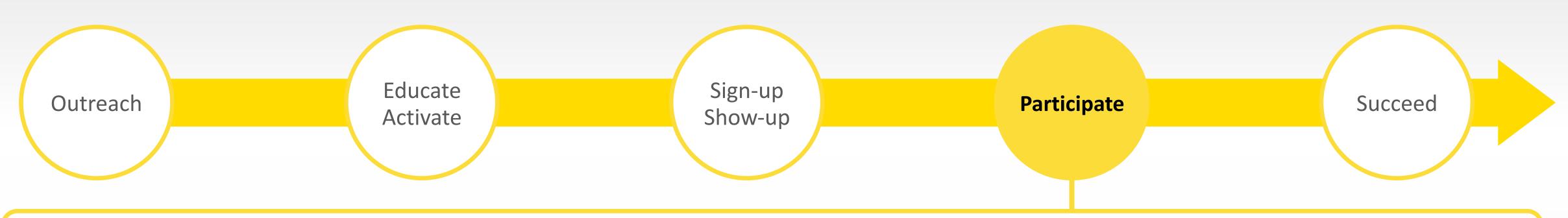
Congratulations on taking a first step toward your urney to better health! Complete the form below t

the program at your own pace and you'll see ho

VLM is only for eligible Humana members. Please enter your information to confirm.

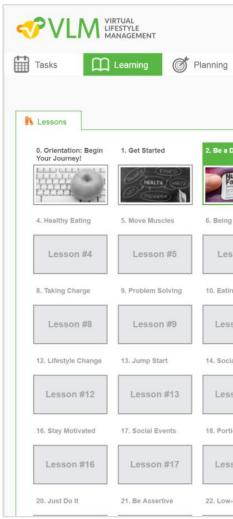






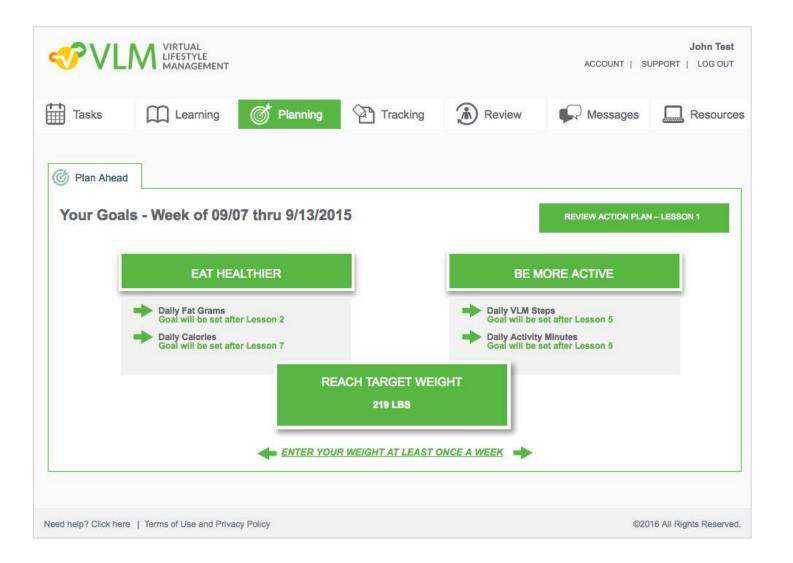
Virtual Lifestyle Management - Behavior Change Program

Tasks 🔲 Learning 🎯 Plannin	g 🎦 Trad	cking 🔊 Revie	ew 💭 Messages 🛄 Resourc
Today's Date: 9/8/2015			Coach Messages
PENDING TASKS	STATUS	COMPLETE BY	Mary T.
Track Your Day	Complete	09/08	Send a Message 🔯
Plan Ahead	Overdue	09/07	Hil Our live chat discussion is almost 08-25 here! I hope you can attend. Your VLM Chat Room Display Name is:
Lesson 2: Be a "fat" detective	Overdue	09/06	VLM Chat Room Display Name is: CLIENT 4, 0 Read this message Sent August 25 at 1:49 AM
Review Your Progress	Complete	09/06	NEW Hello Sammyl My name is Mary T To contact me, simply reply to this
Next VLM+ Lesson Be a "fat" detective		Nutrition hard	MessAges visit the CONNECT MESSAGES sectio, Read this message Sent August 24 at 9:21 PM
In this lesson, you will: Talk about graphing your weight Learn what foods are high in fat Talk about why the self-monitoring of fat Learn how to self-monitor fat grams	is important	This lesson should take less than 20 Min to complete.	



OUTREACH TO OUTCOMES

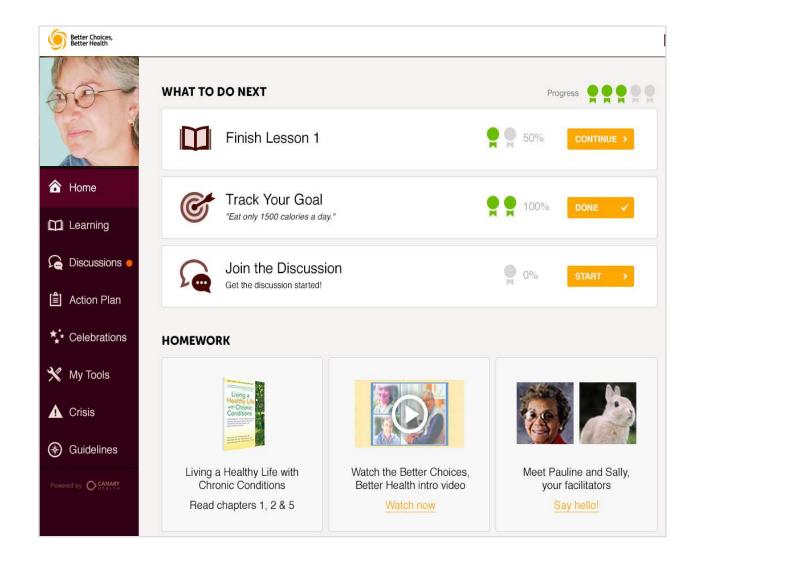
Track	king 🔊 Revie	w Messages	Resources
3	. Eat Less Fat	Lesson #2 Be a Detective	
國	Lesson #3 Coming Soon!	Nutrition Take to	START
7	. Tip the Balance	Antipolity of the second secon	LESSON
	Lesson #7	In this lesson, you will: Talk about graphing Learn what foods are	
1	1. Talk Back	 Talk about why the s fat is important Learn how to self-me 	elf-monitoring of
	Lesson #11	This lesson takes approxim complete.	0.000000000000000000000000000000000000
1	5. Manage Stress		
ļ.	Lesson #15	L	
1	9. Manage Time		
	Lesson #19		
ing 2	3. Stay Active		

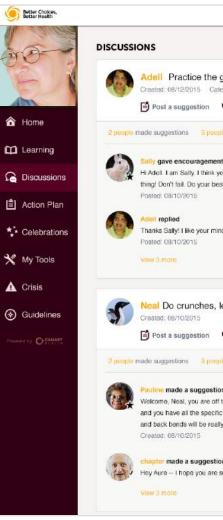






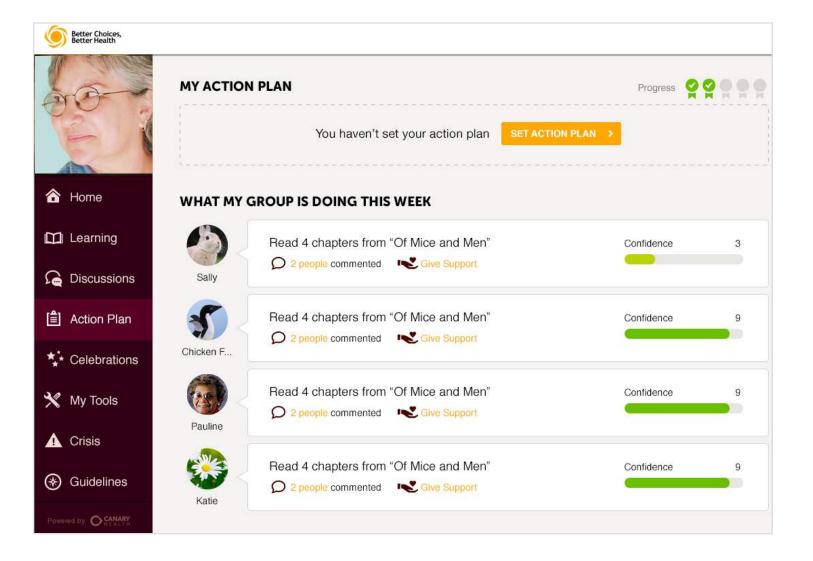
Better Choices, Better Health - Chronic Conditions Self-Management





OUTREACH TO OUTCOMES

	Progress 🦉 🧟 🚔	
guided imagery technique	Confidence Level 3	i.
gories: Stress		
Give encouragement OC Congratula	Adell asked for help regarding ate Stress	
e gave encouragement		
t.		
u should be more confident in your goals. You	have the power within to do any-	
t. Don't quit on you.		
dset!		
eg lifts and back bends	Confidence Level 9	
Give encouragement OC Congratula	ute	
e congratulated you		
n		
o a great start with your first action plan. You ha	ave a really high confidence level	
parts listed so you surely be successful. I am s		
good for you. Go for it, and we look forward to) hearing about your success.	
n		
uccessfull Have you ever tried the 7-Minute wo	orkout?	
and the feature for the first the first the first the		







Successful Participants Leading Healthy Lives

Frank Faecke, age 68, lost 30 pounds with VLM

"It was very well designed. The tips that they give you are very practical. Plus the coach that you're assigned from the very beginning is great."



OUTREACH TO OUTCOMES



"I was able to make and start an exercise plan. I will continue to exercise more."

- Sidney Moseley



"The resource section was helpful as well as the forms and places to keep track of medications." - Karen Garibay



"The skills I learned are too many to list here! I learned stress-relaxation skills, a seven-step method to solving problems, ways to distract myself when I am in pain, and what to do if I find myself feeling anxious, depressed, or angry."

- Barbara Forrest-Ball



Improved

Self-Efficacy

Communication With Physician

Aerobic Exercise

Stress Management

Health Behavior Adherence

> **Medication** Adherence

Reduced

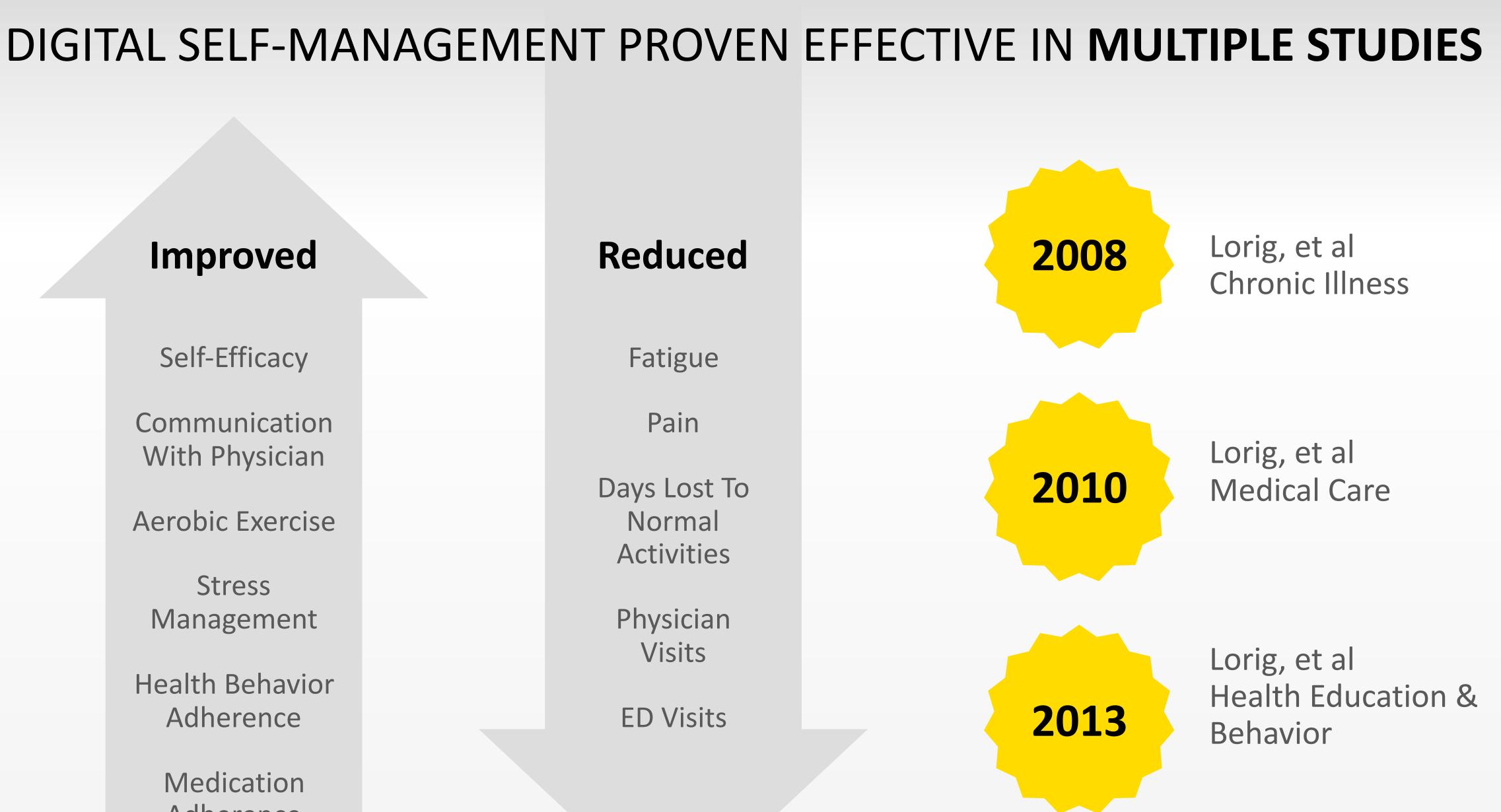
Fatigue

Pain

Days Lost To Normal Activities

> Physician Visits

ED Visits



DIGITAL SELF-MANAGEMENT PROVEN EFFECTIVE IN DIABETES

One thousand person study conducte (second largest US Health Insurer)

- 1. HbA1c decreased 0.93% for those >9
- 2. Depression improved
- 3. Frequent hypoglycemic symptoms de
- 4. Medication-taking adherence improv
- 5. Exercise increased 43 minutes per w

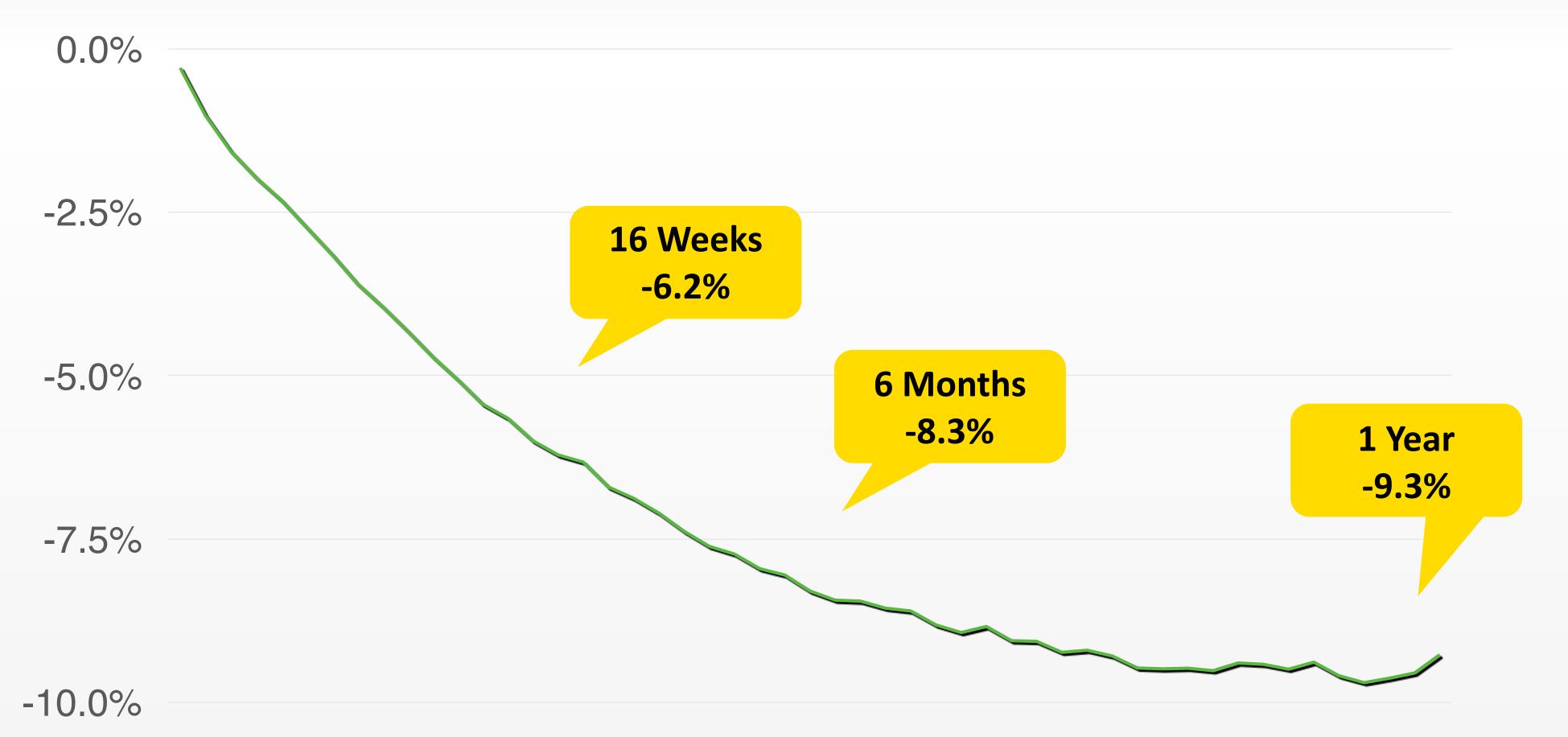
Benefits of Diabetes Self-Management for Health Plan Members: A 6-Month Translation Study Kate Lorig, Dr PH; Philip L Ritter, PhD; Ralph M Turner, PhD; Kathleen English, MBA; Diana D Laurent1, MPH; Jay Greenberg, ScD; J Med Internet Res 2016;18(6):e164) doi:10.2196/jmir.5568

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	JOURNAL OF MEDICAL INTERNET RESEARCH Lorig et al
	Original Paper
ed with Anthem	Benefits of Diabetes Self-Management for Health Plan Members: A 6-Month Translation Study
	Kate Lorig ¹ , Dr PH; Philip L Ritter ¹ , PhD; Ralph M Turner ² , PhD; Kathleen English ³ , MBA; Diana D Laurent ¹ , MPH; Jay Greenberg ⁴ , ScD ¹ Stanford School of Medicine, Stanford University, Palo Alto, CA, United States ² HealthCore, Wilminton, DE, United States
	³ Anthem, Inc. Indianapolis, IN, United States ⁴ NCOA Services, LLC, National Council on Aging, Arlington, VA, United States
9%	Corresponding Anthor: Philip L Ritter, PhD Stanford School of Medicine Stanford University 1000 Welch Rd., Suite 204 Palo Alto, CA, 94304 United States Phone: 1 650 725 2873 Fax: 1 650 725 9422 Email: philir@stanford.edu
ecreased	Abstract Background: Diabetes self-management education has been shown to be effective in controlled trials. However, few programs that meet American Association of Diabetes Educators standards have been translated into widespread practice. Objective: This study examined the translation of the evidence-based Better Choices, Better Health-Diabetes program in the translation of the evidence-based Better Choices, Better Health-Diabetes program in the Mathematican (measured the Internet program nationally in the United States (me100). We conducted face-to-face working in Atlanta, Geograp, Indiana, and St. Louis, Mitsouri (me232). Self-report questionnaires collected health indiates and States (methods). We doministered the laternet program nationality in the United States (me100). We conducted face-to-face working in Atlanta, Geograp, Indiana, and St. Louis, Mitsouri (me232). Self-report questionnaires collected health indiates and States (methods). We doministered the laternet program nationality is the analytic text deterministered on the Web or by mail. We determined and 6 months differed significantly from no change. Subgroup analyses determined whether changes. We determined whether changes (in the Mathe, depression, hypophycema, nonadbeeprogram, and addet text determined whether changes). We determined the promise of purticipants with improvement.
ved	base months differed significantly from no change. Subgroup analyses determined a tests determined whether changes and the percentage of participants with immersion and subgroup analyses determined a tests determined whether changes and the percentage of participants with immersion of the percentage of
veek	improved at lass of the control of t
	In next 0.4 effect size in at least one criterion, and 327 (37,1%) and in 7 of 7 behaviors. For each of the 5 conditions, significant is a size of the backets Self-Management Program, offered in two modes, was successfully disseminated to a heter oparticipant of administered health plans. Participants had small but significant to a heterogeneous the discator; self-management; type 2 diabetes; translation and dissemination
	dissemination
Study	



DIGITAL DPP SIGNIFICANT & SUSTAINED WEIGHT LOSS

Weight Loss by week on program (Starters)





DIGITAL DPP PREVENTS TYPE 2 DIABETES

Without Intervention



Developed Diabetes With Intervention 1.1%

Developed Diabetes

Comparison After a 2 Year Period



DIGITAL DPP PREVENTS CHRONIC CONDITIONS

M

Cardiovascular Disease

Hypertension

Hyperlipidemia

Sleep Apnea

Joint Related

Type 2 Diabetes

Study received Gold Standard from

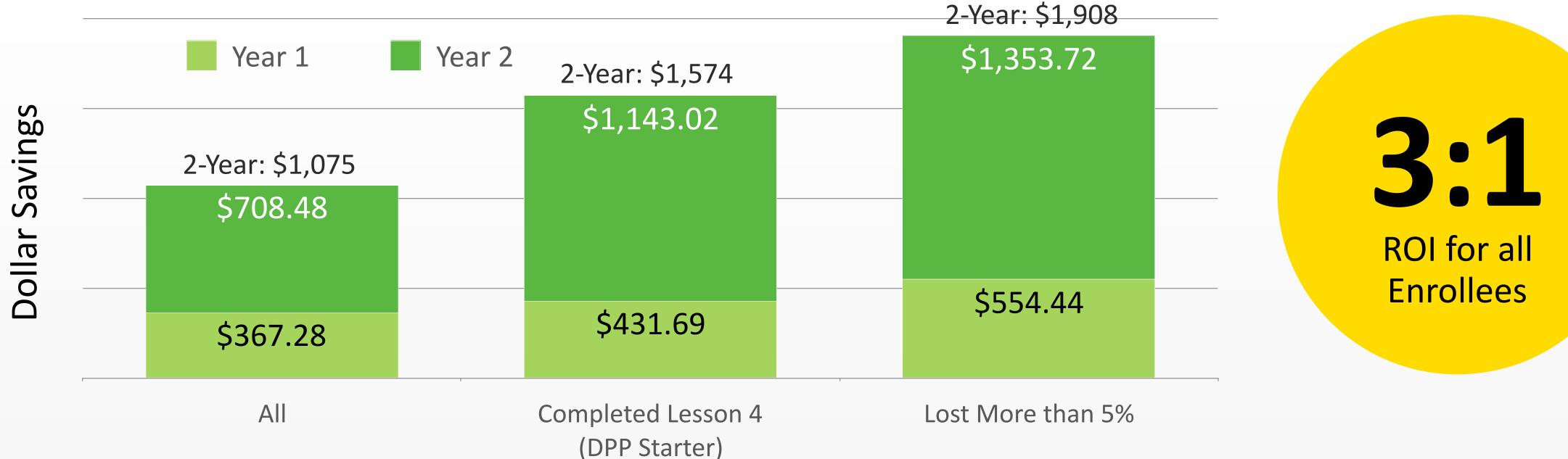
2-Year Prevalence Increase

Vithout Intervention	With Intervention	
3.9%	-1.3%	
3.2%	-1.3%	
2.1%	-1.1%	
5.7%	1.6%	
4.5%	1.6%	
5.5%	1.1%	



DIGITAL DPP REDUCES UTILIZATION

Savings over 2 years with Intervention



Study by Ross & Kaufman Published results at Care Continuum Alliance in partnership with Government Employees Health Association



DISCUSSION





Neal Kaufman MD MPH Founder & Chief Medical Officer nkaufman@canaryhealth.com

CONTACT US

CANARY^M HEALTH

For more info, visit www.canaryhealth.com



Bruce Peterson Vice President, Sales-Midwest bpeterson@canaryhealth.com