AGENDA

State and Public School Life and Health Insurance Board
Quality of Care Sub-Committee
Meeting

June 13, 2017

1:00 p.m.

EBD Board Room – 501 Building, Suite 500

I. *Call to Order..... Michelle Murtha, Vice-Chair*

II. *Approval of May 9, 2017 Minutes ..... Michelle Murtha, Vice-Chair*

III. *ACHI Updates .....Mike Motley, Izzy Whittington, ACHI*

IV. *ComPsych Discussion.....Jennifer Vaughn, ComPsych*

V. *Omada Health, Diabetes Discussion.....Mike Yarnall, Omada*

VI. *New Topics ..... Michelle Murtha, Vice-Chair*

VII. *Director's Report..... Chris Howlett, EBD Executive Director*

Upcoming Meetings

July 11, 2017, August 15, 2017, October 10, 2017

NOTE: All material for this meeting will be available by electronic means only ASE-PSE BOARD@dfa.arkansas.gov. Please silence your cell phones. Keep your personal conversations to a minimum.

State and Public School Life and Health Insurance Board Quality of Care Sub-Committee
Minutes
June 13, 2017

Date | *time* 6/13/2017 1:10 PM | *Meeting called to order by* Michelle Murtha, Vice-Chair

Attendance

Members Present	Members Absent
Michelle Murtha – Vice-Chair	Dr. John Vinson
Pam Brown	Dr. Andrew Kumpuris
Zinnia Clanton	Frazier Edwards
Dr. Bala (Proxy for Dr. Zohoori)	Don Hollingsworth
	Dr. Joseph Thompson
	Robert Boyd
	Margo Bushmiaer - Chair

Chris Howlett, EBD Executive Director, Employee Benefits Division

Others Present:
Geri Bemberg, UAMS; Ethel Whittaker, Cecilia Walker, Eric Gallo, Matt Turner, Shalada Toles, Linda Sherman, EBD; Kristi Jackson, Jennifer Vaughn, Jessica Jackson, ComPsych; Marc Watts, ASEA; Karyn Langley, Win Hammerly, Qual Choice; Ronda Walthall, AHTD, Mike Motley, Randy Loggins, Arlo Kahn, ACHI; Jessica Akins, Takisha Sanders, Health Advantage; Mike Yarnall, Omada Health; Treg Long, ACS; Sandra Wilson, AHM

Approval of Minutes by: Michelle Murtha, Vice-Chair

Due to no quorum, the minutes were not approved. The May 9th minutes will be approved at the next Quality of Care Committee meeting July 11th.

ACHI Updates by: Mike Motley, ACHI

Motley reported the objectives for the presentation are to revisit the top 20 ASE/PSE diagnoses in 2016 by Clinical Classification System grouper (presented during last meeting), to discuss the next steps with Choosing Wisely framework for assessing low back pain imaging within the EBD population. Also, to review the next steps on additional ACHI policy and analytic activities.

Motley reported of the top 20 ASE/PSE diagnoses Spondylosis, intervertebral disc disorders, and other back problems tops the list for the total paid.

In 2014, The Institute for Clinical and Economic Review (ICER) released a series of reports outlining the most commonly overused tests and treatments. An analysis was provided that outlined a summary of specialty society recommendations, including the following metrics:

- Rating of the extent and harms of overuse
- Difficulty of practice change
- Potential for savings

Additional recommendations were don't do imaging for low back pain within the first six weeks, unless red flags are present. Red flags include, but are not limited to:

- Severe or progressive neurological deficits or
- When serious underlying conditions such as osteomyelitis (infection in a bone) are suspected.

Imaging of the lower spine before six weeks does not improve outcomes, but does increase costs and increases the likelihood of surgery. Low back pain can be addressed without imaging, instead with physical exam, medical history, initial pain management, and physical therapy as first courses of action.

Study of Medicare claims in 2009 evaluating low value services estimated between 4-9% of beneficiary sample low back pain diagnosis received non-indicated imaging (Schwartz et al., 2014).

The estimated population affected is 1.2 – 2.5 million based on the Medicare population only. Excess cost of practice equates to $82 - $226 million.

Whittington discussed, the next steps are to continue such analysis of lower back imaging using the Choosing Wisely framework, assess other condition groups for future analysis, and continue the analysis of 2016 HRA data; processing data and will develop updated reports with trends across 2015/2016 surveys.

ComPsych Discussion by: Jennifer Vaughn, Kristi Jackson, Jessica Jackson, ComPsych

ComPsych was founded in 1984 and privately owned. The pioneer of fully integrated EAP, legal, financial, work-life and wellness services. Service centers are staffed by dedicated clinical, legal, financial, wellness, absence-management, behavioral and work-life experts. ComPsych operates 24 hours a day, 7 days a week, 365 days a year. ComPsych has partnered with the State of Arkansas providing EAP services since 2012.

The Healthy Guidance program includes; Telephonic Health Coaching, Emotional Well-being, Legal Connect, Financial Connect, Family Source, Training, and Guidance Resource Online.

The Online Coaching Program options:

- Cardiovascular Disease Prevention
- Diabetes Prevention
- Exercise Program
- Healthy Aging
- Life Balance
- Nutrition Program
- Tobacco Cessation Program

- Financial Wellness
- Understanding Back Pain
- Personal Goal Setting
- Personality and Stress: Using Emotional Resiliency

Vaughn reported traveling the state to meetings with Health Insurance Representatives (HIR) with the goal of educating the members regarding such issues as; their point of contact and other vital information. Vaughn reported ComPsych guidance counselors address the needs of the members. Vaughn discussed members receive eight (8) session of EAP counseling for each issue. The benefits are extended to family members as well.

Jackson reported, the Biometric screening is a quick on-site screening process. Registered nurses administer the screening. Members have their Blood pressure, Blood glucose, Cholesterol, BMI, and Body composition checked with immediate results. If there are concerns the members can have a consultation at that time. ComPsych partners with Maximum Health Systems to schedule and administer of the events. ComPsych also assists with training of the onsite events.

In addition to the onsite screening, ComPsych offers a home-testing kit option, lab vouchers as well as the physician form.

Murtha inquired if members are allowed to participate in multiple options?

Jackson reported the members can participant in multiple options, however, members are encouraged to work with one option at a time. Family members may work with multiple options.

Vaughn commented ComPsych recognizes the state is a challenge geographically. The goal is to accommodate every member in terms of receiving the data in a way that works best for the member.

Jackson discussed telephonic phone coaching is a five session model. The coaches are registered dieticians, exercise experts, and those who are experts in behavior modification.

Vaughn reported ComPsych offers incentive challenges and works with any agency or school and is included in what ComPsych offers through our GuidanceResource program and also Healthy Guidance program.

Clanton commented there are 231 currently enrolled in coaching reviewing certain diseases are there programs that are utilized more?

Vaughn reported she can't speak specifically to the 231, but there are currently 843 coaching participants throughout 14 categories.

Vaughn reported that for 2016 there are a total of 7,395 participants in coaching in general, so they are trending higher for the first quarter in coaching.

Diabetes Discussion by: Mike Yarnall, Dr. Chu, Omada Health

Omada's Mission Statement:

We Inspire and Enable People Everywhere to Live Free of Chronic Disease.

The discussion topics are:

- The Problem
- The Solution
- The Results

Omada inspires and enables individuals everywhere to live free from chronic disease.

Yarnall commented we're more likely to die from a largely preventable disease than an infectious one. Heart disease is the leading cause of death in America. Diabetes is rated the seventh leading cause of death in America. The national average for those who have Diabetes cost approximately $12,000 per employee.

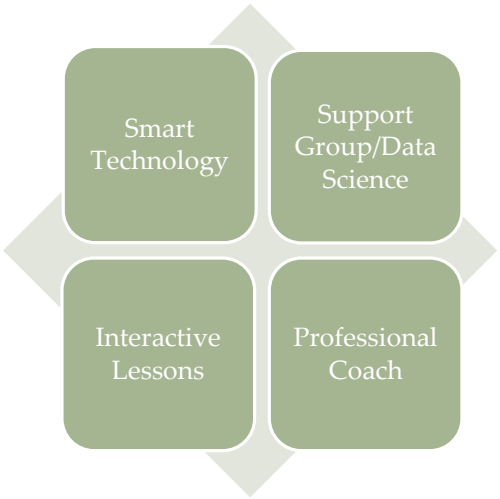
Yarnall reported, only 17% of Colorado residents who are pre-diabetic are aware of the medical issue. Arkansas is rated number 6th for diabetes. An employee with type 2 diabetes costs an estimate of 2.5 times more than a healthy employee.

There are three groups of risk factors:

- Healthy weight or overweight w/o risk factors
- Chronic Disease – Type 2 Diabetes and /or Heart Disease
- Tipping point population
    - Obese or Overweight
    - High Blood Sugar
    - High Blood Fats
    - High Blood Pressure

Of those in the tipping point population, 5% - 10% will develop acute chronic disease every year.

Several years ago the Center for Disease Control (CDC) designed a program to assist high risk obesity related chronic diseases. The results of the program indicated that intensive behavioral counseling significantly reduced the risk of type 2 diabetes. The reduction of diabetes with Metformin is 31% compared to reduction based on lifestyle reduction change of 58%, a 27% difference.



Smart Technology – Wireless, pedometer, and mobile apps track food, activity, and weight.

Interactive Lesson - Participants learn how to eat healthier, increase activity levels, and overcome challenges through fun lessons and games.

Professional Coach – A coach provides participants with real-time motivation.

Support Group - Participants are matched into peer groups for encouragement and healthy competition.

Data Science – We use rigorous scientific data analysis in real time to determine exactly how to deliver the right personalized interventions, at the right time, to each individual participant, thereby deepening efficacy and outcomes as scale.

The Omada Participant experience includes; Learn & Enroll, Kick-off, Stage 1: foundations, and Stage 2: focus.

Results after one year of partnership

% OF BODY WEIGHT LOSS	# OF PARTICIPANTS	ESTIMATED 3 YEAR RISK REDUCTION
0 % TO 3%	1404	35%
3% TO 5%	898	38%
5% TO 7%	622	54%
7% TO 10%	657	64%
10% +	526	85%

Reports on the levels of engagement

The impact from Omada is game-changing.

Howlett inquired about the 30, 60, 90, and 112 days on the slide, is that separate data points? So at 30 days on Omada, you're at 4, is that is that 3 additional pounds or 7 additional?

Dr. Chu stated that it is total weight loss. It is not a randomized study, we didn't randomly assign people for some it was the digital and for others it was driving face to face. It is customized to fit you as an individual. You can track on a minute by minute basis your participation.

Yarnell commented health coaches, through technology, are alerted if there is a challenge with the participant and send reminders to check in on the scale. They want to use technology to change behavior in a positive way.

Dr. Bala inquired about how long the data is tracked, more than a year?

Yarnell responded saying yes it is two years and they are about to publish their 3-year data.

Director's Report by: Chris Howlett, EBD Executive Director

Howlett reported Employee Benefits Division continues to take steps building a platform for the Wellness Plan. The Wellness committee will make recommendations to the Quality of Care & Benefits committees. The Benefits committee will make recommendations to the Board.

Murtha motioned to adjourn. Brown seconded. All were in favor.

Meeting adjourned.

EBD Quality of Care Subcommittee Updates

Mike Motley, MPH
Assistant Health Policy Director

Elizabeth Whittington, MPA
Policy Analyst

ACHI
Arkansas Center for Health Improvement

June 2017

Objectives for Presentation:

- **To revisit top 20 ASE/PSE diagnoses in 2016 by Clinical Classification System grouper (presented during last meeting)**
- **To discuss next steps with Choosing Wisely framework for assessing low back pain imaging within EBD population**
- **To review next steps on additional ACHI policy and analytic activities**

Condition Diagnoses Among ASE/PSE

Top 20 ASE/PSE Diagnoses: Potential to Impact Through Intervention 2016

Clinical Classification Category	Total Plan Paid	Unique Patients
Spondylosis; intervertebral disc disorders; other back problems	$14,694,262	16,614
Medical examination/evaluation	$14,383,565	75,200
Maintenance chemotherapy; radiotherapy	$12,005,758	731
Osteoarthritis	$9,859,450	7,026
Other screening for suspected conditions (not mental disorders or infectious disease)	$8,581,436	40,557
Coronary atherosclerosis and other heart disease	$8,278,458	6,724
Cancer of breast	$8,137,618	2,156
Other connective tissue disease	$5,624,911	16,647
Cardiac dysrhythmias	$5,590,183	6,877
Chronic kidney disease	$5,550,786	1,758
Residual codes; unclassified	$5,539,904	13,476
Septicemia (except in labor)	$5,486,604	656
Leukemia	$5,312,409	257
Immunizations and screening for infectious disease	$5,275,877	39,770
Complication of device; implant or graft	$5,208,682	1,268
Nonspecific chest pain	$5,148,580	8,580
Other nervous system disorders	$4,746,518	7,712
Diabetes mellitus with complications	$4,176,209	5,912
Other ear and sense organ disorders	$4,130,922	6,037

ICER Baseline Reports/Choosing Wisely

ICER/Choosing Wisely Reports

- **In 2014, Institute for Clinical and Economic Review (ICER) released series of reports outlining the most commonly overused tests and treatments**

- **Analyses provide a summary of specialty society recommendations, including the following metrics:**
  - **Rating of the extent and harms of overuse**
  - **Difficulty of practice change**
  - **Potential for savings**

Choosing Wisely Recommendation-Nonspecific Low Back Pain (AAFP)

- **Don't do imaging for low back pain within the first six weeks, unless red flags are present**

- **Red flags include, but are not limited to:**
  - **Severe or progressive neurological deficits or**
  - **When serious underlying conditions such as osteomyelitis (infection in a bone) are suspected**

Source: American Academy of Family Physicians, Choosing Wisely Recommendation-Lower Back Imaging.

Choosing Wisely Recommendations-Nonspecific Low Back Pain

- **Rationale: Imaging of the lower spine before six weeks does not improve outcomes, but does increase costs and increases the likelihood of surgery**

- **Low back pain can be addressed without imaging, instead with physical exam, medical history, initial pain mgmt., and physical therapy as first courses of action**

Source: Redd, S. ICER Baseline Report-Choosing Wisely Recommendation Analysis: Prioritizing Opportunities for Reducing Inappropriate Care-Imaging for Nonspecific Low Back Pain.

Choosing Wisely Recommendations-Nonspecific Low Back Pain

- **Additional specialty societies cited in ICER Report:**
  - **American Association of Neurological Surgeons**
  - **American College of Occupational and Environmental Medicine**
  - **American College of Physicians**
  - **North American Spine Society**

Source: Redd, S. ICER Baseline Report-Choosing Wisely Recommendation Analysis: Prioritizing Opportunities for Reducing Inappropriate Care-Imaging for Nonspecific Low Back Pain.

ICER Report-Lower Back Imaging

- **Study of Medicare claims in 2009 evaluating low value services estimated between 4-9% of beneficiary sample with low back pain diagnosis received non-indicated imaging (Schwartz et al., 2014)**

- **Scaled to entire Medicare population:**
  - **Estimated population affected = 1.2-2.5 million (based on Medicare population only)**
  - **Excess cost of practice = $82-$226 million**

Source: Redd, S. ICER Baseline Report-Choosing Wisely Recommendation Analysis: Prioritizing Opportunities for Reducing Inappropriate Care-Imaging for Nonspecific Low Back Pain.

ICER Report-Lower Back Imaging

- **Additional study using Medicare claims data from 2006 and 2011 compared rates of low-value services (Colla et al., 2014)**

- **Estimated that among 2 million beneficiaries with uncomplicated low back pain, approximately 23% received an X-ray, CT scan, or MRI within six-weeks of initial diagnosis**

Source: Redd, S. ICER Baseline Report-Choosing Wisely Recommendation Analysis: Prioritizing Opportunities for Reducing Inappropriate Care-Imaging for Nonspecific Low Back Pain.

ICER Report-Lower Back Imaging

- **Factors related to overuse:**
  - **Patient demand/lack of patient education of the risks involved with unnecessary imaging**
  - **Insufficient time and resources for physicians to engage patients on risks/harms**
  - **Physicians concerns for liability**
  - **Payment models that reward volume of services (payer factor)**

Source: Redd, S. ICER Baseline Report-Choosing Wisely Recommendation Analysis: Prioritizing Opportunities for Reducing Inappropriate Care-Imaging for Nonspecific Low Back Pain.

ICER Report-Lower Back Imaging

- **Opportunities for Improvement/Current Best Practices:**

  - **Disseminate further patient education materials about potential harms/risks of over-testing**

  - **Tier co-payments based on value to increase patient accountability on those demanding unnecessary imaging services**

Source: Redd, S. ICER Baseline Report-Choosing Wisely Recommendation Analysis: Prioritizing Opportunities for Reducing Inappropriate Care-Imaging for Nonspecific Low Back Pain.

ICER Report-Lower Back Imaging

- **Opportunities for Improvement/Current Best Practices (continued):**

  - **Utilize prior authorization controls for outpatient MRI/CT scans that limit coverage of lower back imaging within 6 weeks of diagnosis**

  - **Apply global payment arrangements that reduce incentives for physicians to over-test**

Source: Redd, S. ICER Baseline Report-Choosing Wisely Recommendation Analysis: Prioritizing Opportunities for Reducing Inappropriate Care-Imaging for Nonspecific Low Back Pain.

Next Steps

Next Steps

- **Continue analysis of lower back imaging using Choosing Wisely framework**

- **Assess other condition groups for future analysis**

- **Continue analysis of 2016 HRA data; Processing data and will develop updated reports with trends across 2015/2016 surveys**

Choosing Wisely® Recommendation Analysis: Prioritizing Opportunities for Reducing Inappropriate Care

IMAGING FOR NONSPECIFIC LOW BACK PAIN

Sarah Jane Reed, MSc and Steven Pearson, MD, MSc
INSTITUTE FOR CLINICAL AND ECONOMIC REVIEW

IMAGING FOR NONSPECIFIC LOW BACK PAIN

Evidence Justification

Five clinical specialty societies recommend against the use of imaging for nonspecific low back pain. We summarize the reasoning provided by the clinical societies to justify the inclusion of this service, including assignment of this service into one of 5 evidentiary categories of "wasteful" services arising from the evidence on benefits, risks, and costs (Gliwa, 2014).

American Academy of Family Physicians
Don't do imaging for low back pain within the first six weeks, unless red flags are present.

American Association of Neurological Surgeons and Congress of Neurological Surgeons
Don't obtain imaging (plain radiographs, magnetic resonance imaging, computed tomography [CT], or other advanced imaging) of the spine in patients with nonspecific acute low back pain and without red flags.

American College of Occupational and Environmental Medicine
Don't initially obtain X-rays for injured workers with acute nonspecific low back pain

American College of Physicians
Don't obtain imaging studies in patients with nonspecific low back pain

North American Spine Society
Don't recommend advanced imaging (e.g., MRI) of the spine within the first six weeks in patients with nonspecific acute low back pain in the absence of red flags.

Specialty Society Rationale
Low back pain is among the most common causes of disability and lost productivity in the United States, and more than 80% of the population will experience low back pain in their lifetime (Rubin, 2007). Physicians perform tests such as computed tomography (CT) scans, magnetic resonance imaging (MRI), and X-rays for low back pain to determine the presence of serious

underlying conditions, such as cancer or spinal infection. Clinical guidelines state that low back pain can be adequately managed without imaging and instead refer to physical examination, medical history, initial pain management (as needed), and physical therapy as the best first course of action (Davis et al., 2008). Imaging may be warranted if the patient experiences no improvement in six weeks, or when more complicating factors are present, such as severe progressive neurologic deficit, history of cancer, trauma, fracture, or infection, or when symptoms are present to indicate a serious underlying condition.

In cases of uncomplicated low back pain, however, patients are unlikely to benefit from imaging studies and may even do worse relative to patients who utilize conservative measures such as heat, over-the counter pain medication, and physical exercise (American Academy of Family Physicians, 2012). The results of imaging studies are unlikely to alter clinical management for back pain since most findings cannot be tied to a specific anatomic cause (Manek, 2005*). The likelihood of identifying a serious underlying condition of lower back pain with imaging is also rare. One study estimates that only 0.01% of patients with low back pain in primary care settings have spinal infection, and 0.7% have metastatic cancer (Deyo et al., 1992; Jarvik et al., 2002). Most patients with low back pain experience improvements in pain and function within four weeks with no serious improvements from imaging, demonstrating little gain for the potential risks involved (Chou, 2011).*

Routine imaging can subject patients to unnecessary harm, by finding abnormalities that are not clinically relevant that lead to further downstream testing, spinal injections, and in some cases, surgery. Imaging studies may also cause unnecessary exposure to radiation. Lumbar radiography is responsible for the greatest proportion of total radiation dose from medical imaging in the U.S. given its frequency of use (Fazel et al., 2009). One study estimated that patients who received an MRI during the first month of back pain were eight times more likely to have surgery and experience a five-fold increase in medical expenses with no observed gains in recovery time as compared to patients undergoing no imaging (Webster and Cifuentes, 2010). The cost of imaging studies is often substantial. CT scans and MRI for the lower back are typically over $1000, while X-rays are approximately $300 (Consumer Reports Health and American Academy of Family Physicians, 2012).

Table 1. "Wasteful Care" Evidence Category

1. Insufficient evidence to evaluate comparative benefit for any indication
2. Insufficient evidence to evaluate comparative benefit for use beyond the boundaries of established indications, frequency, intensity, or dosage
3. ***Adequate evidence demonstrating equivalent benefit with higher risk, higher cost, or both***
4. Adequate evidence demonstrating a small comparative benefit not large enough to justify the higher risk to patients, higher cost, or both
5. Adequate evidence demonstrating improved comparative benefit, lower risk, lower cost, or both when using the intervention

Source: Gliwa and Pearson, 2014

Current Use and Variation in Practice

- *Estimated population affected: 1,116,000– 2,560,000**
- *Excess Cost of Practice: $82 million – $226 million**

  **Estimates are for Medicare population only*

Source: Schwartz AL, Landon BE, Elshaug AG, et al., Measuring Low-Value Care in Medicare. JAMA Intern Med. 2014;174(7):1067-1076.

Even though all relevant specialty society guidelines support initial management without imaging for patients with uncomplicated low back pain, many physicians continue to order routine imaging without a clear clinical indication. A recent study of Medicaid beneficiaries in Washington estimated that among enrollees with a primary diagnosis of low back pain, 14% received an X-ray, CT scan, or MRI within 4 weeks of diagnosis (Washington Health Alliance, 2014). Another retrospective study of Medicare claims data from 2009 evaluating the prevalence of low-value services found that among a representative sample of approximately 1.4 million beneficiaries, 54,000– 122,000 (4% - 9%) of individuals with a diagnosis of low back pain received non-indicated imaging, corresponding to 1.1 – 2.5 million individuals for the entire Medicare population (Schwartz et al., 2014). The lower range limits imaging studies to those performed within six weeks of first diagnosis of low back pain, and excludes diagnoses of cancer, neurological impairment, endocarditis, and symptoms of other potentially serious complications. Another retrospective analysis using Medicare claims data between 2006 and 2011 to compare rates of low-value services estimated that among 2 million beneficiaries with uncomplicated low back pain, approximately 23% received an X-ray, CT scan, or MRI within six-weeks of initial diagnosis (Colla et al., 2014).

The Schwartz study estimated that annual Medicare spending on imaging for uncomplicated low back pain ranged from $82 million - $226 million (2014). These estimates do not include any costs associated with follow-up care yielded by test results, so the potential for cost-savings from reducing overuse may be higher.

Sociology of Practice

We conducted unstructured interviews with national clinical experts representing the fields of radiology and internal medicine to understand the multi-faceted influences that drive the use of imaging studies for uncomplicated low back pain, as well as the most effective methods to reduce inappropriate use of these services. Key themes and lessons from these conversations are summarized below.

A range of issues contribute to the overuse of imaging for low back pain. First, physicians noted that patient preferences and demand play a significant role. Patients living with low back pain want a clear diagnosis and confirmation that a more serious underlying condition is not present. Many patients are unaware of the risks associated with unnecessary imaging, and many experts interviewed felt they lack the resources and time to engage patients in a conversation of the potential harms and wasteful spending involved. As physicians take on more administrative tasks and increased caseloads, experts noted that referring a patient for additional testing can be more expedient than explaining to patients why further imaging may not benefit cases of uncomplicated low back pain. Linking physician bonuses and quality scoring to patient satisfaction has also potentially exacerbated this problem, as patients tend to equate more care with better care, incentivizing physicians to provide imaging for low back pain even when not indicated. Experts feel that they are never penalized by patients for ordering imaging tests that are unnecessary, but receive negative ratings when a patient expects imaging and does not receive it. Physicians underscored the importance of further development and dissemination of patient education materials, like those included as part of the Choosing Wisely® campaign, to help raise awareness of over-testing and to aid patients in understanding the major considerations involved in imaging decisions.

Physicians interviewed also emphasized financial incentives as a major driver of overuse in this area. Fee-for-service systems that reward physicians based on volume incentivize self-referrals. Advanced imaging technology is expensive to acquire and operate, so practices with MRI or CT scan machines may be motivated to increase utilization of these technologies. Experts also noted that practices receive higher reimbursement for MRI compared to conventional imaging technology, providing further impetus for physicians to prescribe expensive imaging. Financial incentives may also distort patient demand. Experts noted that insurance policies that allow for the provision of diagnostic studies with limited co-payments mask the cost of these procedures and leave patients immune to the expense of unnecessary, wasteful imaging tests. Some

experts advocated for value-based insurance designs that instill higher deductibles or co-payments for services that do not meet appropriateness guidelines and are shown to have little to no benefit for patients.

Physician education and training may also be a factor in overuse of diagnostic imaging for uncomplicated low back pain, as some physicians fail to take a comprehensive medical history to document the lack of weakness, radiculopathy, or sensory loss that makes imaging unnecessary. Experts advocated for greater decision-support tools at the point of care to help busy physicians avoid ordering unnecessary testing.

Experts also tort reform as an important issue, but perceived concerns for liability to be less of a concern in this area. Physicians explained that it is exceedingly rare that low back pain results in a life-threatening situation, unlike other clinical areas where internal bleeding or tumors could potentially be missed by forgoing imaging.

Though imaging for uncomplicated low back pain remains an area of significant waste, some levers are in place to reduce unnecessary care in this area. First, health plans commonly require preauthorization for outpatient imaging services, including MRI and CT scans, and some do not reimburse imaging for low back pain within six-weeks of the initial diagnosis. Experts noted, however, that there is still clearly issues with how criteria are being implemented and enforced, and that more could be done to standardize criteria and limit inappropriate use of services. Some experts cautioned that efforts should be made to streamline preauthorization policies as to the extent possible, since the administrative burden on physicians to receive approval for indicated imaging tests can be a separate source of inefficiency. Experts noted that physician organizations, such as the American College of Physicians (ACP) and the National Physician Alliance, have launched initiatives to educate physicians on the overuse of imaging for low back pain. Similar to the Choosing Wisely campaign, the ACP's "High Value, Cost-Conscious Care Initiative" has adopted low back imaging as one of its major priority areas, and has created patient summaries, physician videos, and other training materials to help increase awareness and education on over testing in this area. Experts also emphasized how payment reform and the evolution towards capitated reimbursement and accountable care delivery systems may also reduce financial incentives for over-testing.

Summary Statement: Drivers of Overuse and Opportunities for Improvement

Based on our research and conversations with national experts, this section synthesizes the major factors related to overuse, as well as any opportunities for improvement or existing best practices for reducing wasteful care.

<table>
<tr><th colspan="3">Factors Related to Overuse</th></tr>
<tr><th>Patient Factors</th><th>Physician Factors</th><th>Payer Factors</th></tr>
<tr>
<td>• Patient demand/lack of education of the risks involved with unnecessary imaging, and that most low back pain goes away within four weeks with conservative measures</td>
<td>• Inadequate education and awareness of guidelines at the point of care
• Insufficient time and resources to engage patients on the risks/harms of over testing
• Financial incentives that reward the provision of costly procedures
• Concerns for liability</td>
<td>• Payment models that reward volume of services
• Low co-pays or co-insurance for diagnostic imaging services considered low-value</td>
</tr>
<tr><th colspan="3">Opportunities for Improvement/Current Best Practices</th></tr>
<tr><th>Opportunities for Improvement</th><th colspan="2">Current Best Practices</th></tr>
<tr>
<td>• Disseminate further existing patient education materials and develop talking points for physicians to discuss with patients on the risks/harms of unnecessary screening
• Make greater use of global payment arrangements that reduce incentives to over-test patients
• Tier co-payments based on value to increase patient accountability for those demanding unnecessary services
• Implement decision-support systems at the point of order to assist physicians in performing a comprehensive medical history and determining if further imaging is necessary
• Explore options for tort reform that reduce physician’s liability for applying appropriate clinical criteria</td>
<td colspan="2">• Prior authorization policies for outpatient MRI and CT scan services to control overutilization and limitation on coverage for low back pain imaging ordered within six weeks of initial diagnosis
• Physician and patient education campaigns led by physician organizations emphasizing the degree of overuse of low back pain imaging and its potential for harm
• Capitated reimbursement and accountable care organization delivery systems that help reduce financial incentives for over-testing</td>
</tr>
</table>

Summary Rating

This section synthesizes the information provided previously and presents a recommended priority ranking of whether this service is likely to represent the best opportunity for policy makers to improve practice and drive change. These rankings are based on considerations of 5 factors illustrated in the table below.

Criteria	*Ranking*
Level of overuse	★ = Limited overuse ★★ = Moderate overuse ★★★ = Substantial overuse
Magnitude of individual patient harm	★ = Limited harm ★★ = Moderate harm ★★★ = Substantial harm
Ease of overcoming patient, clinician, and system barriers to reduce inappropriate care	★ = Limited ease ★★ = Moderate ease ★★★ = Substantial ease
Potential to leverage existing change programs and policy efforts	★ = Limited potential ★★ = Moderate potential ★★★ = Substantial potential
Amount of potential savings	★ = Limited savings ★★ = Moderate savings ★★★ = Substantial savings

Category	*Score*	*Rationale*
Level of overuse	★★★	• Demonstrated level of significant overuse according to multiple studies comparing areas of low value care among Medicare beneficiaries • Low back pain is among the most common causes of disability and lost productivity in the U.S.
Magnitude of individual patient harm	★★★	• Can potentially lead to downstream testing that causes patient anxiety, unnecessary exposure to radiation, injections, and in some cases surgery
Ease of overcoming patient, clinician, and system barriers to reduce inappropriate care	★★	• Diagnostic codes available to identify unnecessary use with existing billing codes • Payer policies already limit unindicated use • Physician and patient incentives are embedded in reimbursement schemes that reward high volume, costly care and mask prices to consumers
Opportunity to leverage existing change programs and policy efforts	★★★	• Patient education materials available through Choosing Wisely® and other physician initiatives with opportunities for greater dissemination and collaboration • Consensus across clinical guidelines suggests opportunity for uniformed messaging and training for clinicians at point of order
Amount of potential savings	★★★	• Tests are costly, and eligible patient population is large

References

Chou R, Qaseem A, Owens DK, Shekelle P. Diagnostic imaging for low back pain: Advice for high-value health care from the American College of Physicians. *Ann Intern Med.* 2011;154(3):181-189.

Colla CH, Morden NE, Sequist TD, Schpero WL, Rosenthal MB. Choosing Wisely: Prevalence and correlates of low-value health care services in the United States. *J Gen Intern Med.* Published online 2014.

Consumer Reports Health and the American Academy of Family Physicians. Imaging tests for lower-back pain: when you need them – and when you don't, 2012. Available at: http://www.choosingwisely.org/doctor-patient-lists/imaging-tests-for-lower-back-pain/. Accessed: November 2014.

Davis PC, Wippold FJ II, Cornelius RS, et al. ACR Appropriateness Criteria® low back pain. [online publication]. Reston (VA): American College of Radiology (ACR); 2011. 8 p.

Deyo RA, Rainville J, Kent DL. What can the history and physical examination tell us about low back pain? *JAMA*. 1992; 268:760-5.

Fazel R, Krumholz HM, Wang Y, Ross JS, Chen J, Ting HH, et al. Exposure to low-dose ionizing radiation from medical imaging procedures. *N Engl J Med*. 2009; 361:849-57.

Gliwa C, Pearson SD. Evidentiary rationales for the Choosing Wisely "Top 5" lists. *JAMA.* 2014;311(14):1443-1444.

Healthcare Bluebook.

Jarvik JG, Deyo RA. Diagnostic evaluation of low back pain with emphasis on imaging. *Ann Intern Med.* 2002;137(7):586-597.

Manek NJ, MacGregor AJ. Epidemiology of back disorders: prevalence, risk factors, and prognosis. *Curr Opin Rheumatol.* 2005;17(2):134-40.

Rubin L. Epidemiology and risk factors for spine pain. *Neurol Clin.* 2007;25(2):353-371.

Schwartz AL, Landon BE, Elshaug AG, et al., Measuring low-value care in medicare. *JAMA Intern Med*. 2014;174(7):1067-1076.

Washington Health Alliance. Less waste. Less harm. Choosing Wisely® in Washington State. 2014. Available at http://wahealthalliance.org/wp-content/uploads/2014/09/Choosing-Wisely-in-Washington-state.pdf. Accessed November 2014.

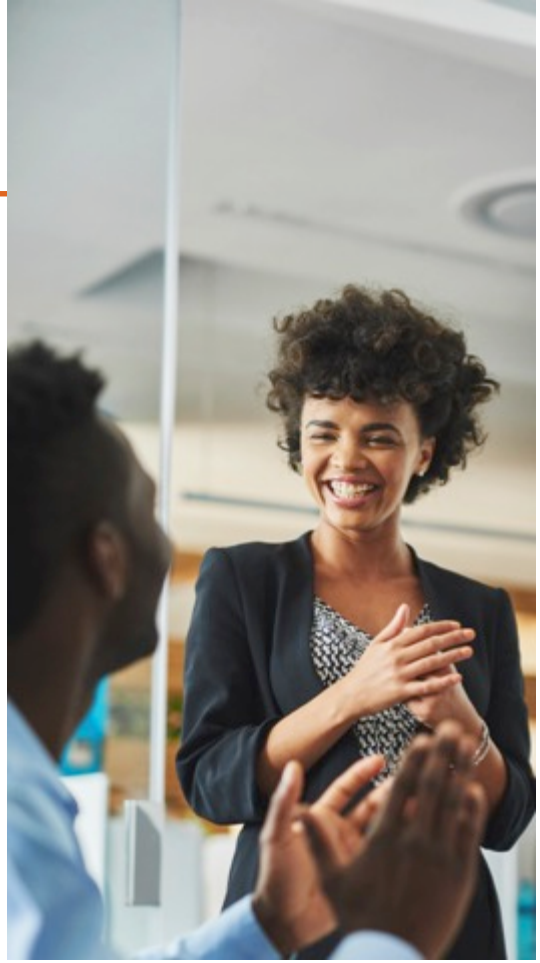
Webster BS, Cifuentes M. Relationship of early magnetic resonance imaging for work-related acute low back pain with disability and medical utilization outcomes. *J Occup Environ Med*. 2010; 52:900-7.

ComPsych EAP & Wellness for ARBenefits

ARBenefits

Who We Are

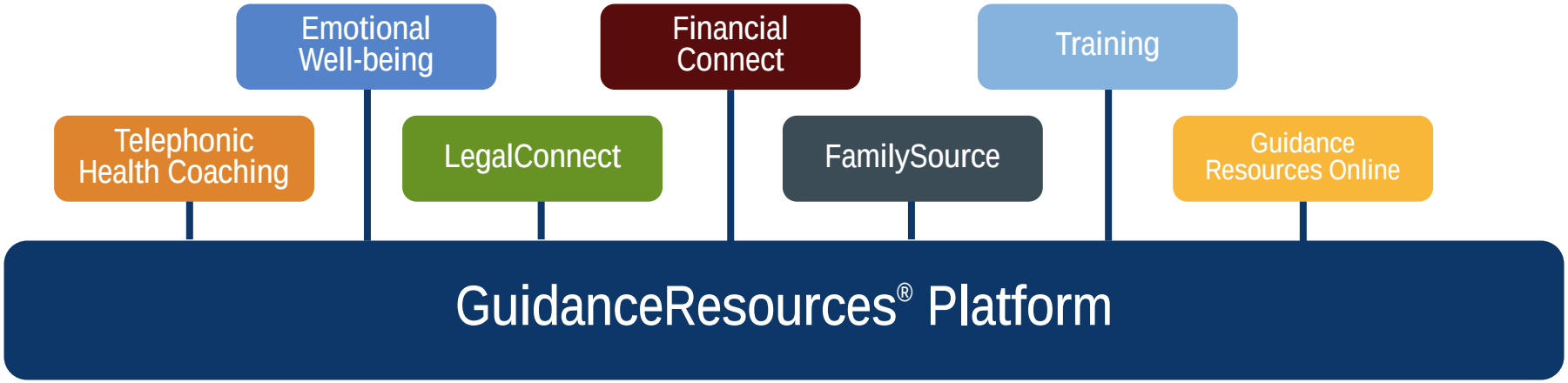
- Founded in 1984 and privately owned
- Pioneer of fully integrated EAP, legal, financial, work-life and wellness services
- GuidanceResources®, a trusted brand
- Service centers staffed by dedicated clinical, legal, financial, wellness, absence-management, behavioral and work-life experts
- Operating 24 hours a day, 7 days a week, 365 days a year
- Partner with State of Arkansas providing EAP and Wellness Services since 2012



HealthyGuidance: Integrated Wellness Program

- Wellness program, completely integrated with EAP and Work-Life provided by GuidanceResources®

- Integrated GuidanceResources® allows us to be a single source for:
  - Online and telephonic health coaching
  - Confidential consultation on personal issues
  - Legal information and resources
  - Financial information, resources and tools
  - Information, referrals and resources for work-life needs
  - Online information, resources and tools



Biometric Screening Capabilities

On-site screening event

- Via finger prick allowing for results at time of screening
- Blood glucose
- Cholesterol (Total, HDL, LDL and Triglycerides)
- Blood pressure
- BMI
- Body composition
- Immediate consultation of results with participant

Mail kit option

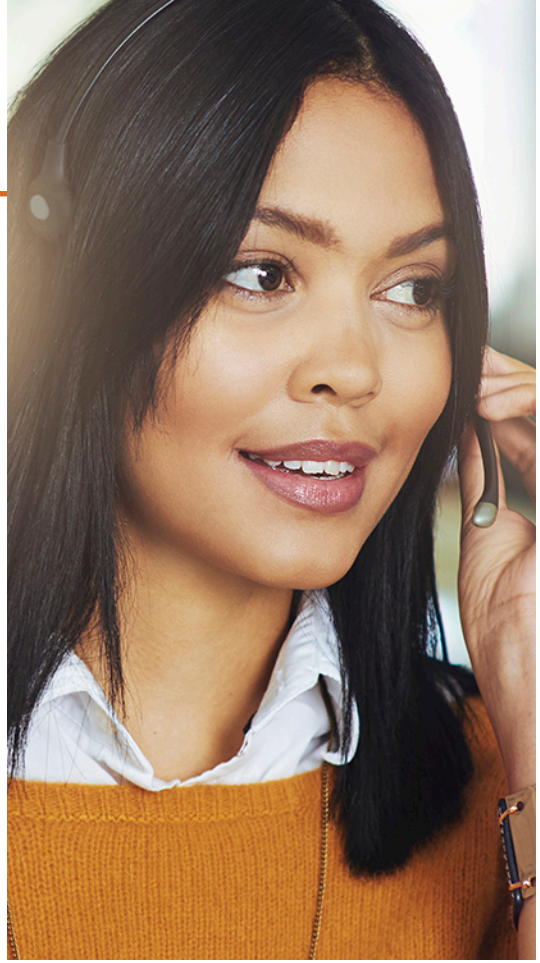
- Kit mailed to participant's home with easy directions and postage-paid envelope
- Blood glucose
- Cholesterol (Total, HDL, LDL and Triglycerides)

Lab option

- Blood glucose
- Cholesterol (Total, HDL, LDL and Triglycerides)

Physician form option

HealthyGuidance® Telephonic Coaching



Telephonic Coaching Program options:

- Lifestyle Coaching
  - Resiliency Coaching
  - Diabetes Disease Prevention
  - Cardiovascular Disease Prevention
- Sleep Management
- Tobacco Cessation
- Weight Management
- Healthy Families
- Healthy Pregnancy
- Back Care
- Financial Wellness

HealthyGuidance Online Coaching

Online Coaching Program options:

- Cardiovascular Disease Prevention
- Diabetes Prevention
- Exercise Program
- Healthy Aging
- Life Balance
- Nutrition Program
- Tobacco Cessation Program
- Financial Wellness
- Understanding Back Pain
- Personal Goal Setting
- Personality and Stress: Using Emotional Resiliency

HealthyGuidance Online Services

Health Assessment

- NCQA Accredited
- Customizable to support focus areas
- Incorporation of biometric data
- Personalized and aggregate reporting

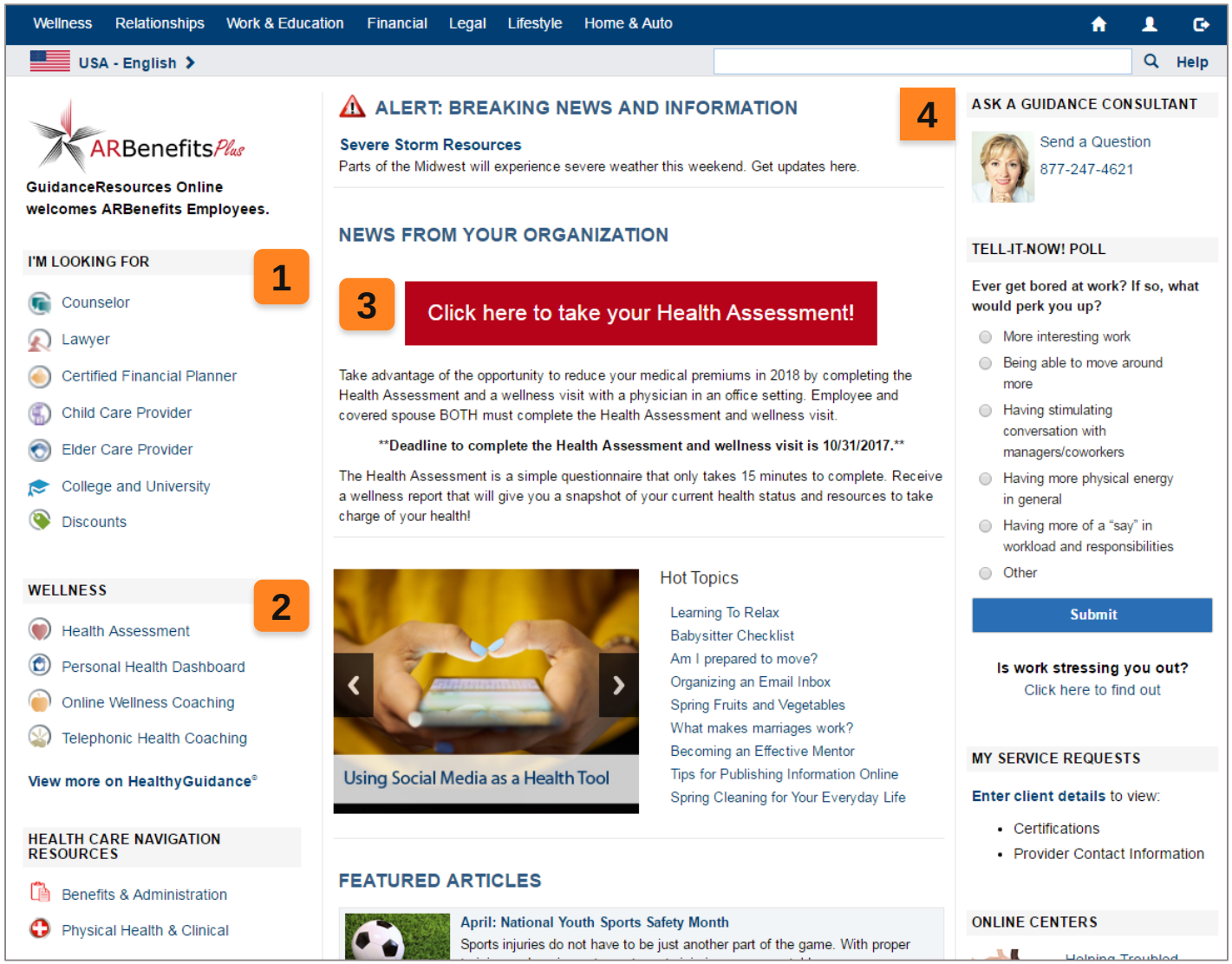
Online Tools

- Trackers, calculators
- Online coaching modules
- Incentive program design
- Expert consultation to develop program tailored to needs and goals

Online Incentive Tracker

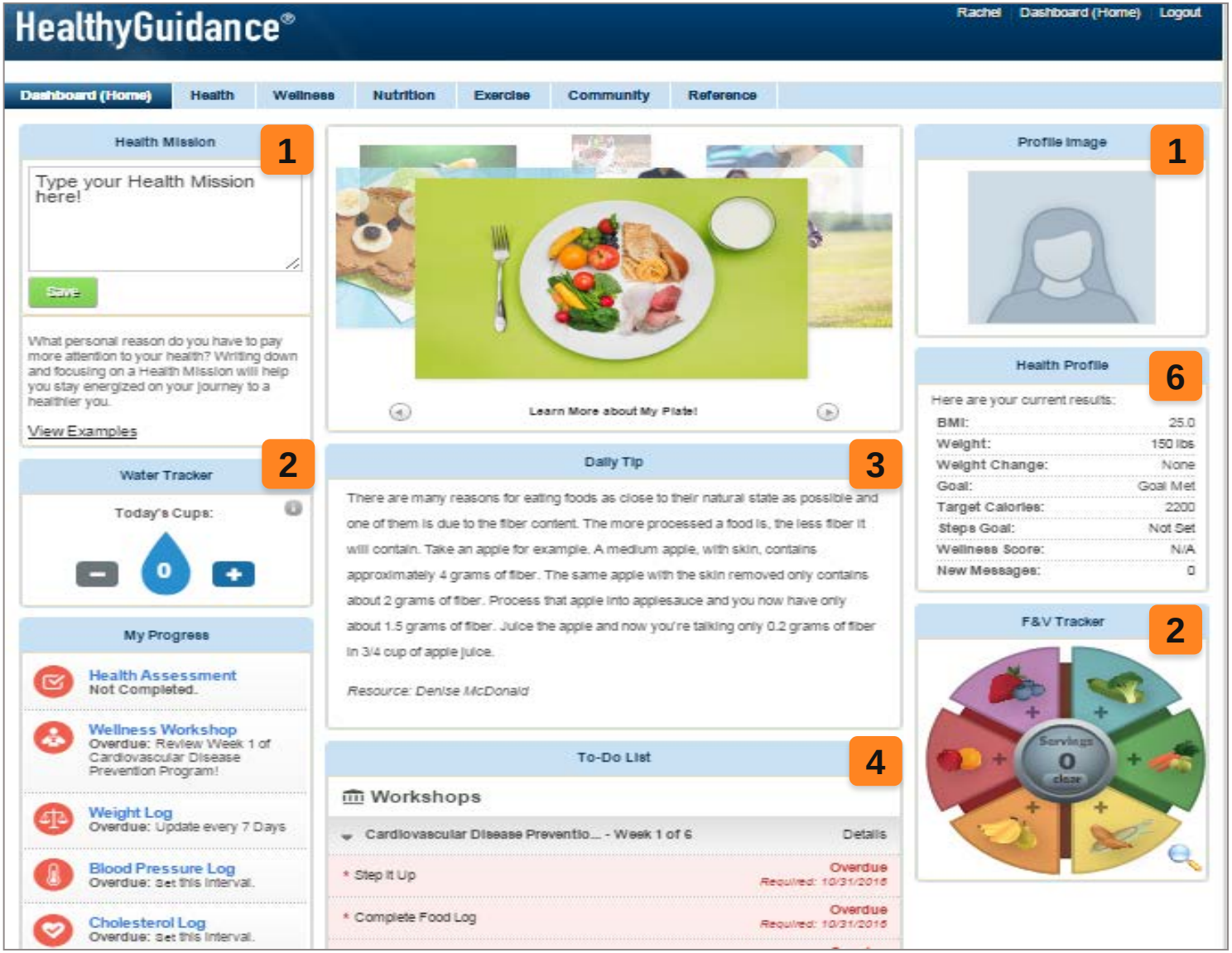
- Participants can track their progress, view and redeem points earned for completing activities
- Seamless data input from multiple vendors to drive holistic experience

GuidanceResources Online



1. Search database for EAP/Work-life
2. Links to access wellness resources
3. Current campaign information
4. Questions?

HealthyGuidance: Personal Health Dashboard



1. Personalization: Health Mission and Profile Picture

2. Water tracker and Fruit and vegetable tracker

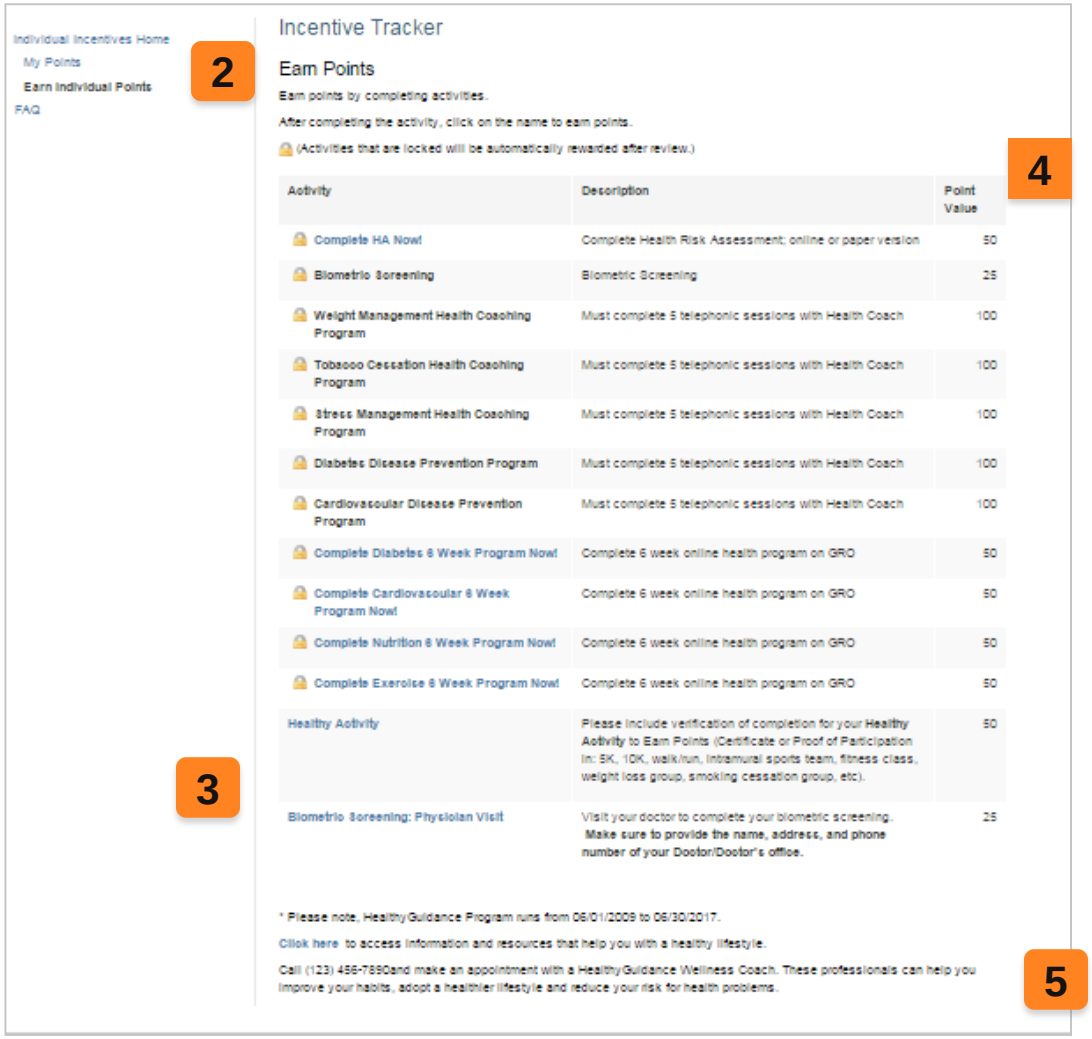
3. Daily Health Tip

4. To-do list

5. Featured Wellness resources

6. Health Profile

Online Incentive Tracker



1. **Easy access:** Incentive tracker can be accessed easily through a link on the GRO homepage
2. **Program Information:** Completely customizable space to make program announcements
3. **Incentivized activities:** Customizable list of activities that participants can click on and complete to earn points
4. **Point values:** Flexible point/dollar values can be assigned to various activities
5. **Simple and interactive design:** Simple design to make earning incentives as easy as possible to ensure maximum participation

Wellness Challenges & On-site Support

Wellness Challenges

- Structured activity contests customized to meet organizational and employee needs
- Incentives, awards and reporting of results
- Team or individual competitions
- Addresses specific health risks or fitness levels of employee population
- Proven way to motivate and engage employees

Training and Development

- Expansive curriculum
- Drives engagement across populations
- On-site and interactive training delivered by wellness experts

Coaching

- “Meet the Health Coach” webinar
- Weight management group coaching sessions
- Integrated with key organizational events and initiatives

Wellness Champion Support

- Trainings
- Toolkits

ComPsych Guidance Resources® Products and Services

Behavioral Health

- Employee Assistance Program
- Student Assistance Program
- Managed Behavioral Health
- DisabilityAssist℠
- RightScript℠

HR Services

- HRConsult℠
- ConfidentialSource℠
- OutplacementResources℠
- DOT

International Services

- Global GuidanceResources®
- GlobalConnect®

Programs ARBenefits Currently Have

Programs ARBenefits Do Not Have

Programs ARBenefits Have But Not Utilized

Work-Life Services

- FamilySource®
- LegalConnect®
- FinancialConnect®
- ElderOutreach℠
- EstateGuidance®
- IDResources℠
- HealthChampion®
- RetireSource®

Leave Management

- FMLASource®
- ADA Administration

GuidanceResources® Online

Crisis Intervention Worldwide℠

Well-Being Services

- HealthyGuidance®
  - Biometric Screenings
  - Health Assessment
  - Incentive Program Design
  - Online Coaching Programs
  - Online Incentive Tracker
  - Telephonic Coaching Programs
    - Back Care
    - Healthy Families
    - Healthy Pregnancy
    - Lifestyle Coaching
    - Sleep Management
    - Tobacco Cessation
    - Weight Management
  - Worksite Wellness Challenges
- RNSource®
- BariatricAssist℠

Biometric Screening Capabilities

Biometric Screening

ComPsych is well-suited to provide biometric screenings onsite through finger stick method. The finger stick method allows employees to participate and return to their positions in a timely manner, while still providing valuable biometric data. Participants experience a higher degree of comfort with the finger stick method, versus the more traditional and invasive venipuncture blood draw. The finger stick method achieves the same valuable health data in a shorter timeframe, and with less administrative burden for event coordinators. In addition, the same qualified nurse who performs the testing for a participant will provide a brief consultation along with their biometric results. The Health Assessment, in conjunction with the blood analysis, provides employees with a true assessment of their potential health risks based on self-reported information and test results including the following:

- Blood tests (total cholesterol, HDL, LDL, glucose, triglycerides)
- Body composition
- Body Mass Index (BMI)
- Height/weight
- Resting blood pressure
- Waist circumference

For biometric screenings, ComPsych partners with Maxim Health Systems, LLC. ComPsych has partnered with Maxim Health Systems for over four years. ComPsych administers the coordination of all biometric screening event services for our clients; ARBenefits' designated ComPsych account manager will coordinate all service delivery and respond to any questions or issues related to such services as needed.

Basic resources needed for onsite screening events are: a clean and private area, a table, two chairs, a trash receptacle, an electrical outlet, and a flat wall to measure participants' height. All other materials and equipment will be provided by ComPsych. Each individual's biometric screening process takes approximately 15 minutes, and a registered nurse can screen approximately four to five people per hour. Depending on the location size and number of participants, multiple nurse stations can be set up to accommodate walk-ins in addition to those with scheduled appointments. We will work with ARBenefits to set up the appropriate staffing model to accommodate your employee populations. The maximum number of participants per event is limited only by the size of the facility where the screening is to be held. Staggered scheduling over the course of several days is common for employee locations with larger numbers of participants.

Biometric Screening Capabilities-Physician Forms:

ComPsych has the capability to accept biometric information directly from the physicians of program participants. However, to make the process more efficient, our recommendation is that participants send ComPsych the completed Physician Form after a visit with their physician. First

the participant simply downloads and prints out the Physician Form from the GuidanceResources Online portal. The physician can fill out the form with their biometric results, and the participant would then email, fax or upload the completed and signed form to ComPsych. The form is then processed by members of the ComPsych HealthyGuidance team and the data is entered into ComPsych's secure system.

ComPsych also regularly receives data feeds from our clients' third-party vendors to integrate with various program components (i.e. biometric data and/or data required for tracking specific incentivized activities, etc.). Upon implementation, we will work with ARBenefits to determine the best data feeds and file formats for uploading any such data, along with frequency.

Alternative Biometric Collection Methods

ComPsych also offers the following forms of biometric collections:

- **Home-testing Kits:** To help reach employees in remote areas, ComPsych makes home-testing kits available for blood glucose and cholesterol. Participants can follow the easy instructions and mail samples back in the provided prepaid package. We will then mail their confidential results back to them. Results can then be manually entered into the HA, or transmitted via a secure FTP data feed through a mutually agreed upon file format.
- **Lab Vouchers:** ComPsych can also make lab vouchers available to ARBenefits employees. Participants can easily register online and print the voucher, then schedule an appointment for a biometric screening at an off-site lab. A standard screening would include participants' blood glucose and cholesterol via finger stick. Individuals will receive results at the time of testing. Results can then be manually entered into the HA, or transmitted via a secure FTP data feed through a mutually agreed upon file format.

ComPsych BoB Experience with Biometrics

We partner with Maxim Health as our Biometric Screening provider. Maxim has been a leading provider of onsite screening since last 25 years and has a national presence. They have worked with multiple clients in government sector and rural setting. ComPsych has coordinated with over 20 large employers with multiple locations for their onsite biometric needs. One of the largest customers that ComPsych has, has used ComPsych's biometric screening for four years in a row. We conduct screening annually, at more than 35 locations for them. All ComPsych customers who have participated in our Biometrics program have expressed favorable results.

Pricing:

On-Site: $55/test with 50 person minimum per site

- Blood tests (total cholesterol, HDL, LDL, glucose, triglycerides)
- Body composition
- Body Mass Index (BMI)

- Height/weight
- Resting blood pressure
- Waist circumference

Off-site: $82 full set

- Blood tests (total cholesterol, HDL, LDL, glucose, triglycerides)
- Height and Weight

$52 basic

- Blood tests (total cholesterol, HDL, LDL, glucose, triglycerides)

Home-Kit: $55

- Blood tests (total cholesterol, HDL, LDL, glucose, triglycerides)

omada

OMADA HEALTH
State of Arkansas

OUR MISSION

WE INSPIRE AND ENABLE PEOPLE EVERYWHERE TO LIVE FREE OF CHRONIC DISEASE.

THE PROBLEM

DIABETES AND OBESITY-RELATED DISEASES

OUR NATIONAL HEALTH CRISIS: TYPE 2 DIABETES

1/3

One in **three** Americans has prediabetes…

…and 90% of them don't know it.

$254 BILLION

$254 billion is spent per year on type 2 diabetes in the US, including direct medical costs and productivity loss.

American Diabetes Association.

The Staggering Costs of Diabetes in America: http://www.diabetes.org/diabetes-basics/statistics/infographics/adv-staggering-cost-of-diabetes.html

YOU HAVE THREE TYPES OF MEMBERS

1. United Health Group. United States of Diabetes: Challenges & Opportunities in the Decade Ahead. Working Paper 5. Nov 2010. Note: Direct (medical) costs only.

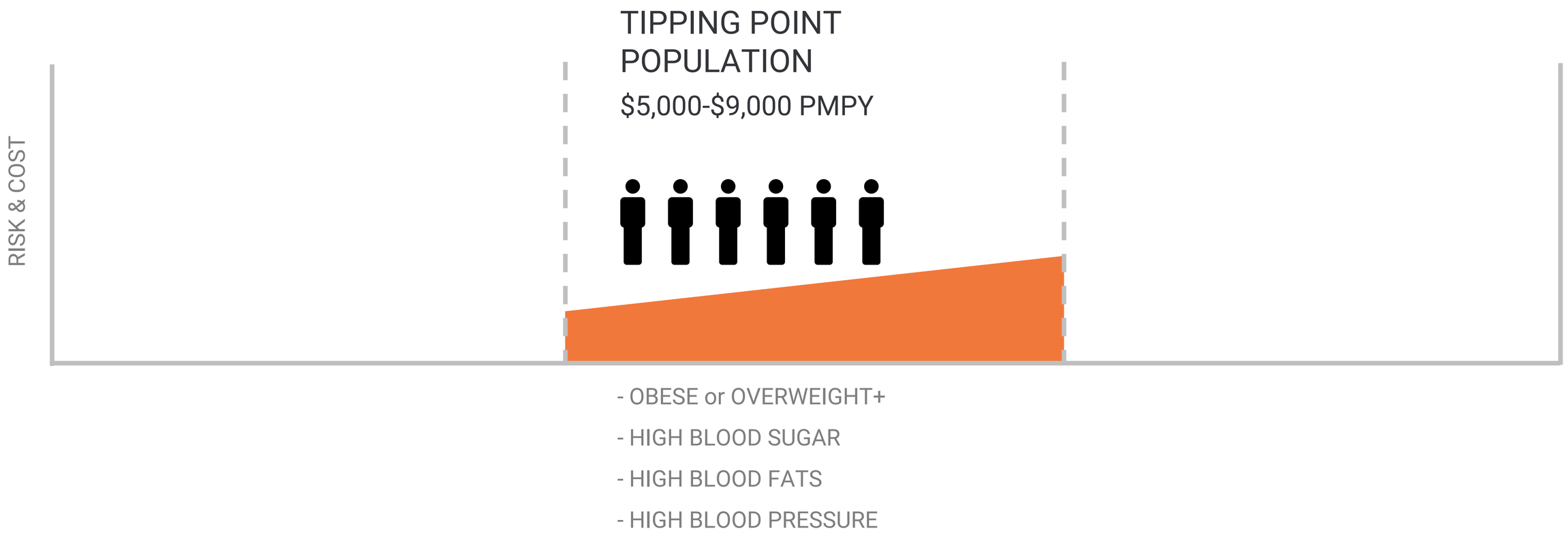
THESE PEOPLE ARE PRETTY HEALTHY

1. United Health Group. United States of Diabetes: Challenges & Opportunities in the Decade Ahead. Working Paper 5. Nov 2010. Note: Direct (medical) costs only.

THESE PEOPLE HAVE CHRONIC DISEASE

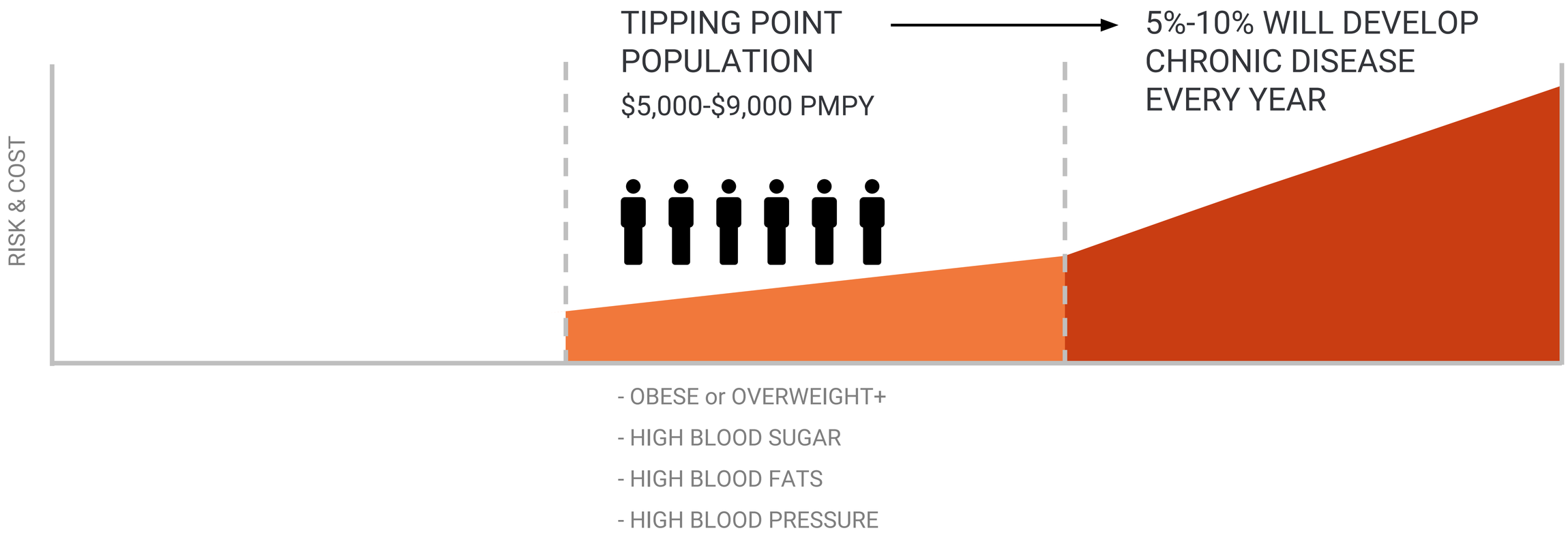
1. United Health Group. United States of Diabetes: Challenges & Opportunities in the Decade Ahead. Working Paper 5. Nov 2010. Note: Direct (medical) costs only.

THESE PEOPLE ARE AT A TIPPING POINT



1. United Health Group. United States of Diabetes: Challenges & Opportunities in the Decade Ahead. Working Paper 5. Nov 2010. Note: Direct (medical) costs only.

IF YOU DO NOTHING, YOU CAN EXPECT 5-10% TO “TIP OVER” INTO CHRONIC DISEASE ANNUALLY



1. United Health Group. United States of Diabetes: Challenges & Opportunities in the Decade Ahead. Working Paper 5. Nov 2010. Note: Direct (medical) costs only.

Estimated Annual Diabetes-attributable Costs Incurred by Employers, Arkansas, 2013 Dollars

Sex	Age Group (in years)	Estimated Cost Per Person ($)	Estimated Total Cost ($ in Millions)
Total	18-74	9,963	1,067.3
	18-64	10,602	1,007.7
	65-74	4,934	59.6
Male	18-74	10,667	683.8
	18-64	11,279	645.6
	65-74	5,563	38.2
Female	18-74	8,914	383.5
	18-64	9,577	362.0
	65-74	4,109	21.4

Note: The annual cost from the employer perspective consists of direct medical costs (from private insurance perspective) and indirect (absenteeism and presenteeism) costs.

State of Arkansas's Starting Point

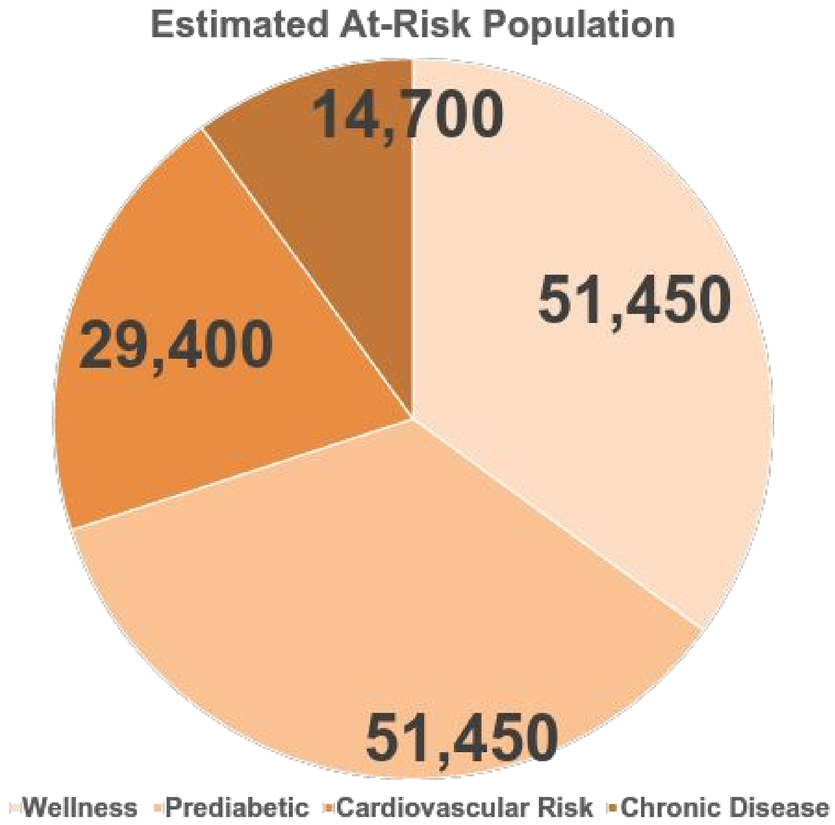
Knowing how to identify and support your "Tipping Point" population is the first step in reducing disease risk.

Total Members **147,000**

ESTIMATED TOTAL AT-RISK POPULATION

Prediabetes **51,450**

Prediabetes + Cardiovascular Risk **80,850**



Source: Based on analysis of US adults above age 18 from National Health and Nutrition Examination Survey (2005-2012) and USPSTF guidelines eligible prevalences for overweight and cardiovascular disease. Centers for Disease Control and Prevention (CDC). National Center for Health Statistics (NCHS). National Health and Nutrition Examination Survey Data. Hyattsville, MD: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, [2005-2012][http://www.cdc.gov/nchs/nhanes.htm].
http://www.cdc.gov/diabetes/data/statistics/2014statisticsreport.html Centers for Disease Control and Prevention. National Diabetes Statistics Report: Estimates of Diabetes and Its Burden in the United States, 2014. Atlanta, GA: US

THE SOLUTION

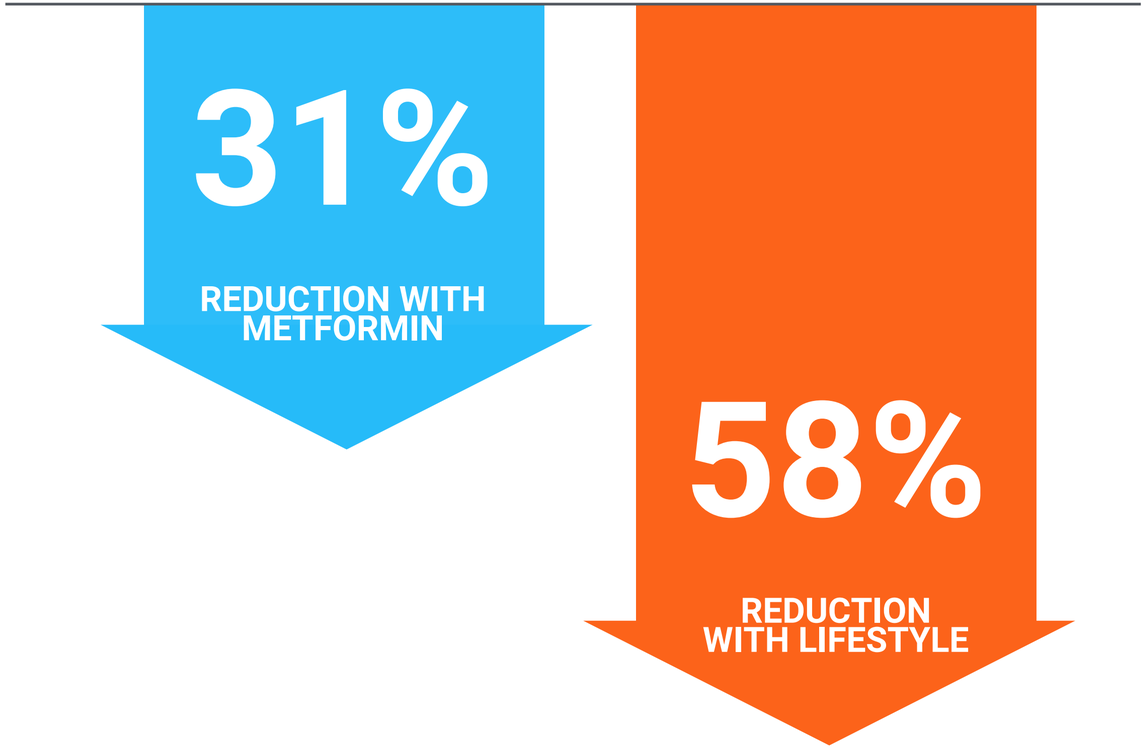
About fifteen years ago, the CDC and NIH broke new ground in helping people at high risk for obesity-related chronic diseases by designing a program with human behavior in mind.

Delahanty, L. M., et al. "Effects of Weight Loss, Weight Cycling, and Weight Loss Maintenance on Diabetes Incidence and Change in Cardiometabolic Traits in the Diabetes Prevention Program." Diabetes Care 37.10 (2014): 2738-745. Note: Increased risk of T2DM is based on weight cycles of five lbs. or greater within two years. Model adjusted for age, race and gender.

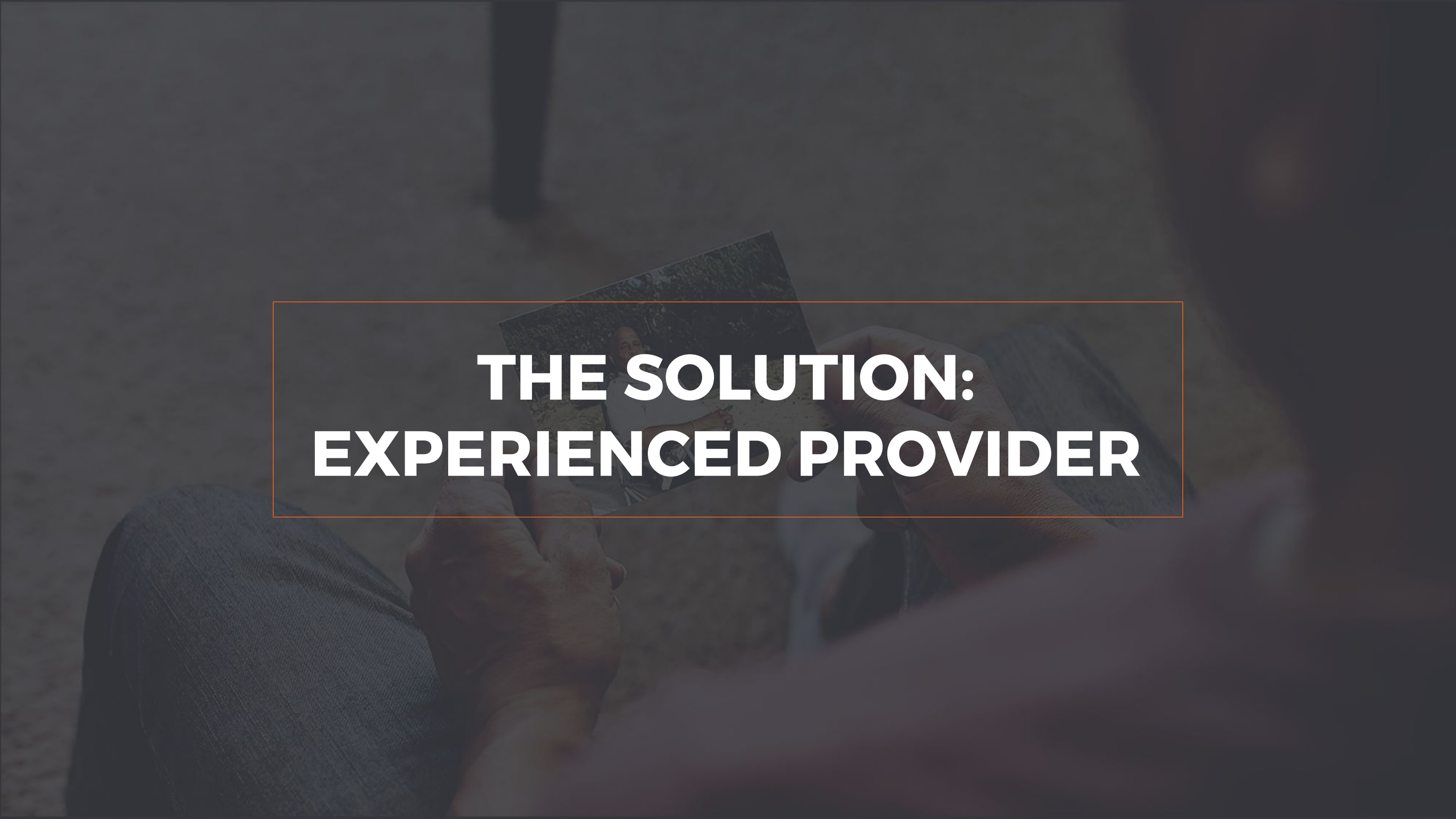
THE SOLUTION

The trial's results indicated that intensive behavioral counseling **significantly reduced the risk of type 2 diabetes.**

REDUCED DIABETES INCIDENCE



Delahanty, L. M., et al. "Effects of Weight Loss, Weight Cycling, and Weight Loss Maintenance on Diabetes Incidence and Change in Cardiometabolic Traits in the Diabetes Prevention Program." Diabetes Care 37.10 (2014): 2738-745. Note: Increased risk of T2DM is based on weight cycles of five lbs. or greater within two years. Model adjusted for age, race and gender.



THE SOLUTION: EXPERIENCED PROVIDER

OMADA IS A HIGHLY CHOREOGRAPHED JOURNEY

Each component is made stronger by the others.

smart technology

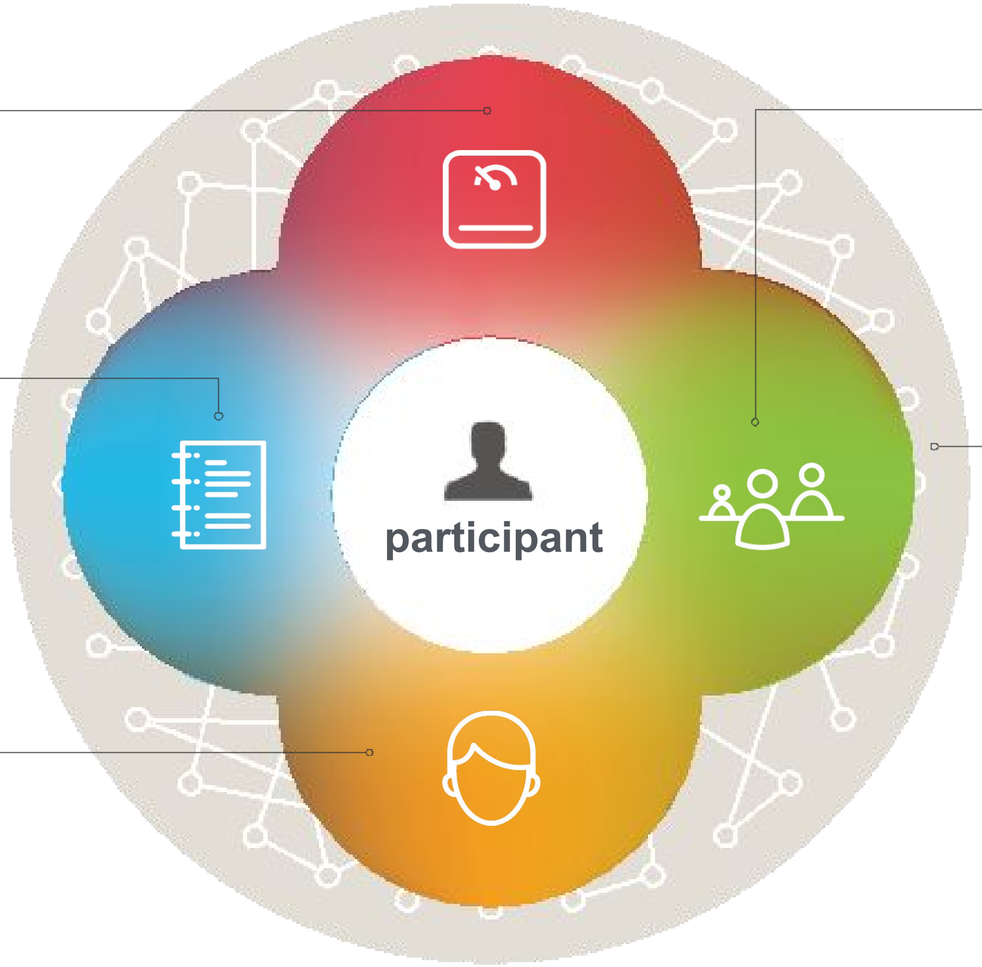
Wireless scale, pedometer, and mobile apps track food, activity, and weight.

interactive lessons

Participants learn how to eat healthier, increase activity levels, and overcome challenges through fun lessons and games.

full-time professional health coach

A dedicated coach provides participants with real-time support and motivation.



support group

Participants are matched into peer groups for encouragement and healthy competition.

data science

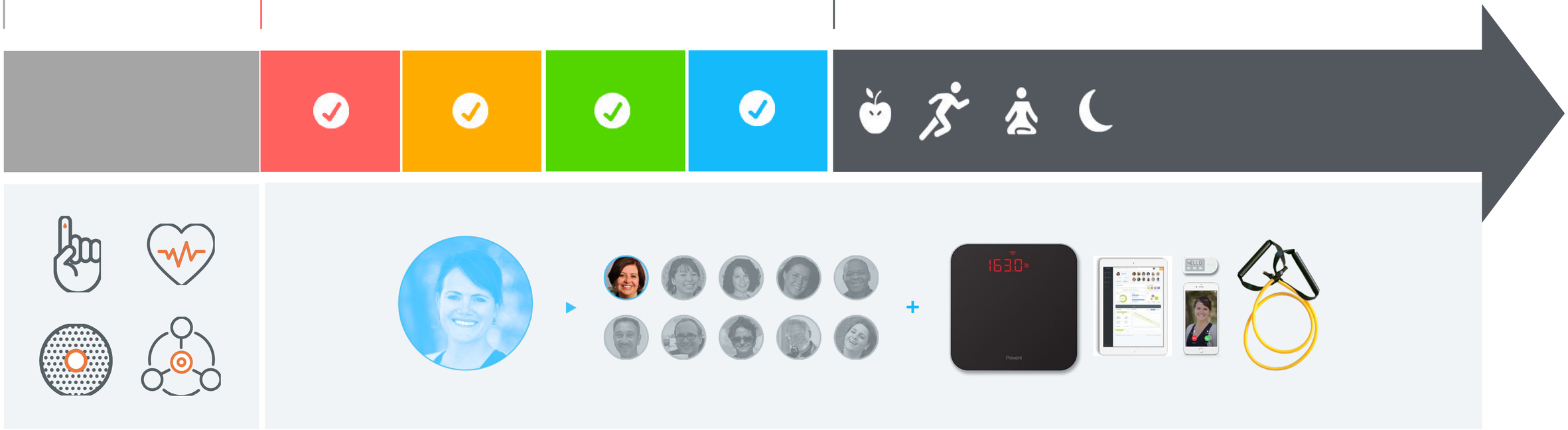
We use rigorous scientific data analysis – in real-time – to determine exactly how to deliver the right personalized interventions, at the right time, to each individual participant, thereby deepening efficacy and outcomes at scale.

omada

KICK-OFF
Preparation

MONTHS 1–4
Foundations

HYPER-PERSONALIZED
Focus



Clinical Enrollment + Marketing

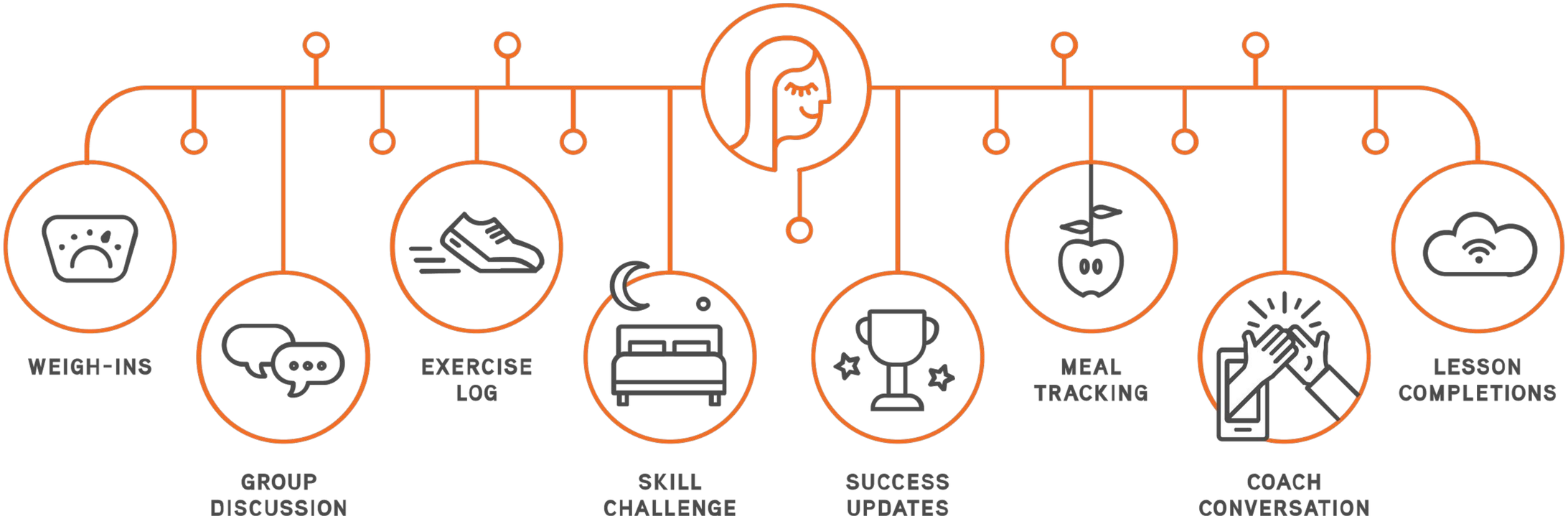
Omada Coach Guidance & Support

Peer Group Encouragement & Accountability

Engaging Tools & Connected Technology

OUR ENGAGEMENT IS EXCEPTIONAL

The average participant has over 19 points of engagement each week.



Omada internal participant results.
Stated results reflect the average weekly engagement for participants during first 16 weeks of program. Actual engagement may vary.

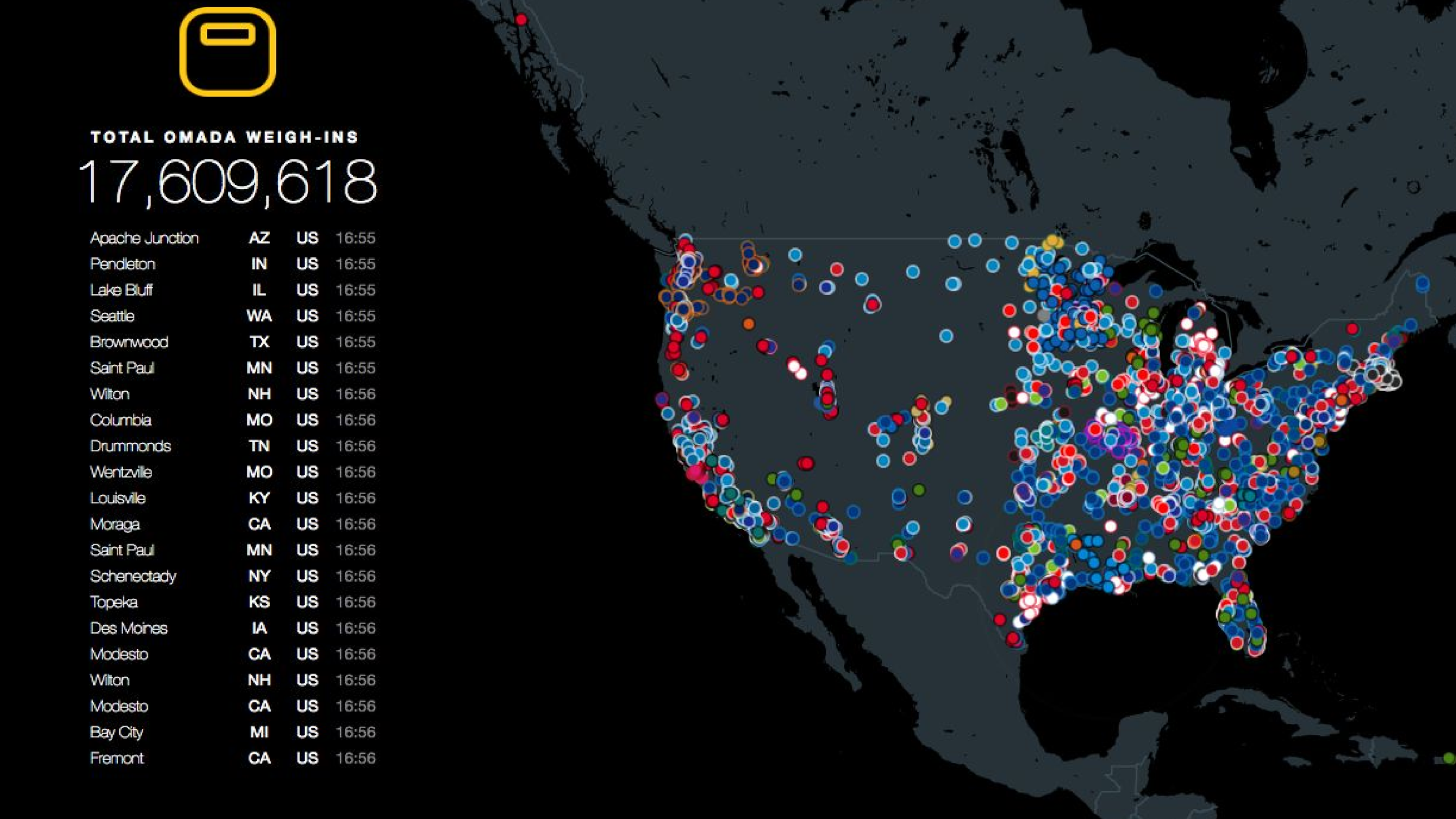
STATE OF MINNESOTA RESULTS AFTER ONE YEAR PARTNERSHIP

% OF BODY WEIGHT LOSS	# OF PARTICIPANTS	ESTIMATED 3 YEAR RISK REDUCTION
0 % TO 3%	1404	35%
3% TO 5%	898	38%
5% TO 7%	622	54%
7% TO 10%	657	64%
10% +	526	85%

TOTAL OMADA WEIGH-INS

17,609,618

Apache Junction	AZ	US	16:55
Pendleton	IN	US	16:55
Lake Bluff	IL	US	16:55
Seattle	WA	US	16:55
Brownwood	TX	US	16:55
Saint Paul	MN	US	16:55
Wilton	NH	US	16:56
Columbia	MO	US	16:56
Drummonds	TN	US	16:56
Wentzville	MO	US	16:56
Louisville	KY	US	16:56
Moraga	CA	US	16:56
Saint Paul	MN	US	16:56
Schenectady	NY	US	16:56
Topeka	KS	US	16:56
Des Moines	IA	US	16:56
Modesto	CA	US	16:56
Wilton	NH	US	16:56
Modesto	CA	US	16:56
Bay City	MI	US	16:56
Fremont	CA	US	16:56



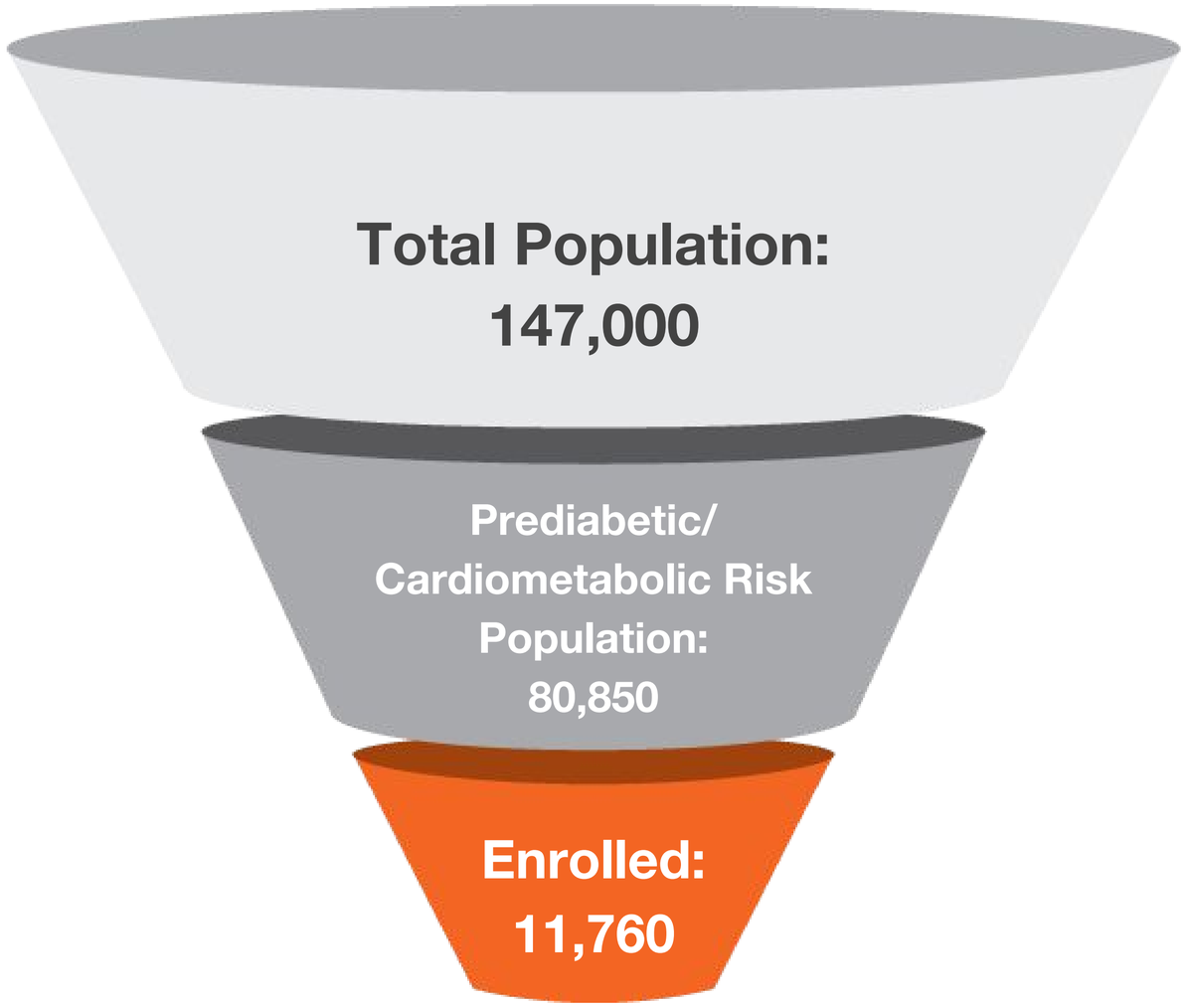
Enroll At-Risk Members in the Omada Program

Inputs

- 147,000 total at-risk population
- 100% receive enrollment emails from Omada

Expected enrollment for State of Arkansas in the initial deployment:

11,760



Source: Internal calculations based on historical enrollment rates

Expected Outcomes

Your deployment

- **11,760** enrollees
- Average age **45**
- **50%** female, **50%** male

If we enroll those **11,760** members in the Omada program, you can expect weight-loss outcomes like this:

Expected outcomes at week 16

Weight Loss	% of active participants
<0%	10%
0-3%	25%
3-5%	18%
5-7%	15%
7-10%	18%
>10%	14%
Active Participants	**81%**

Source: Internal calculations based on historical performance of 100,000+ participants

ALIGNING INCENTIVES THROUGH OUTCOMES BASED PRICING

Omada’s outcomes-based pricing model aligns incentives with those of our payer and employer partners while delivering significant value.

pricing options	year 1	year 2+	annual activation mechanism
outcomes based	 **$250** Enrollment Fee +  **$14/month** Per Percent of Weight Loss	 **$7/month** Per Percent of Weight Loss	We only charge for participants who remain engaged. (3+ weigh-ins/month)

Expected Price and Budget

We align our goals with yours by offering outcomes-based fees.

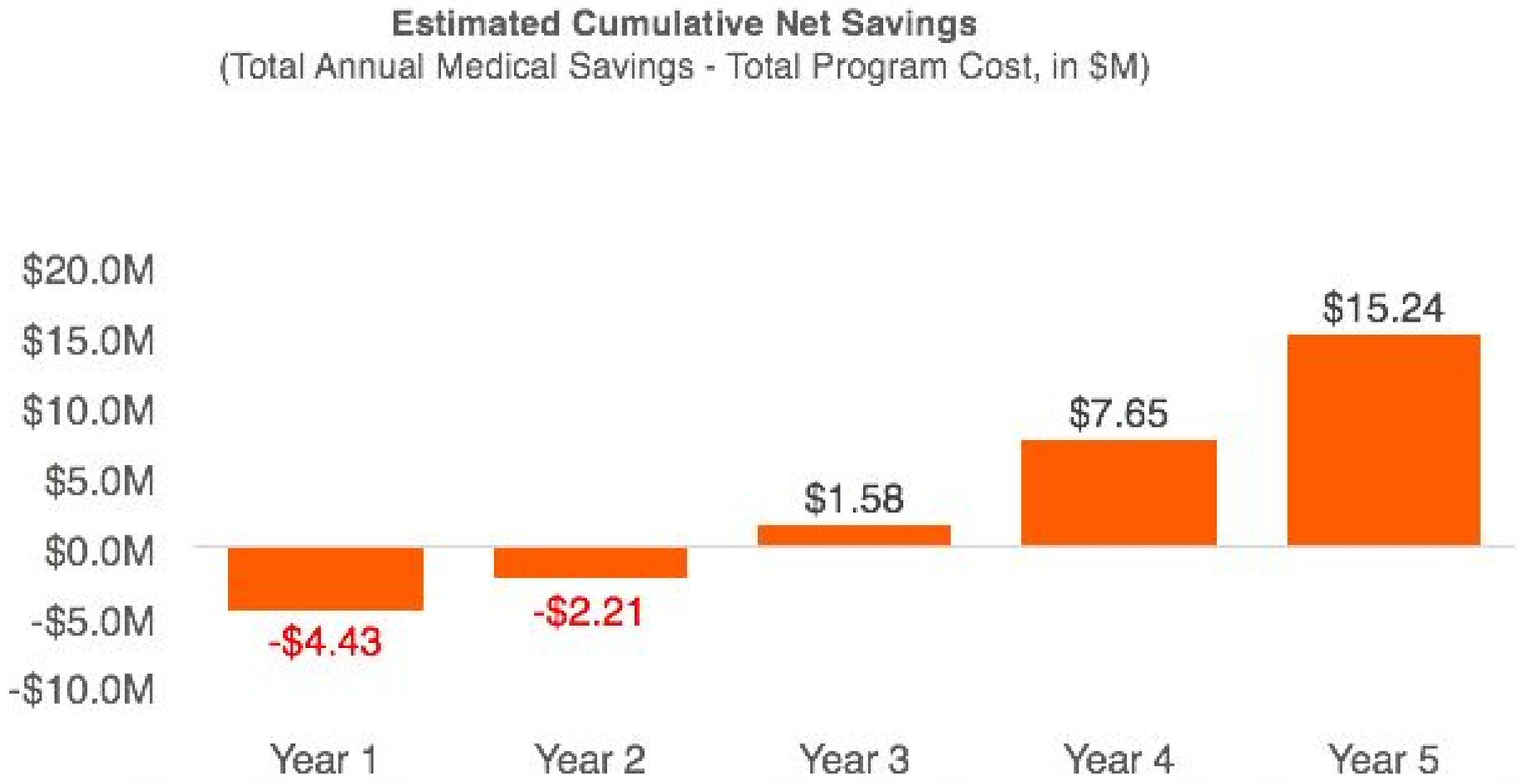
Average Spend per Participant

Program Costs Over Time ($M)

Source: Internal calculations based on current prices and on the historical outcomes of 100,000+ participants

ROI in 2 1/2 years

Based on your unique population, we expect State of Arkansas to break even in 31 months.



Source: Markov Model Based on the Following Paper: Su, W. et al. "Return on Investment for Digital Behavioral Counseling in Patients With Prediabetes and Cardiovascular Disease." Preventing Chronic Disease 2016 Jan 28;13:E13. doi: 10.5888/pcd13.150357

OMADA

MOST-PUBLISHED CLINICAL DATA

OMADA IS THE LEADER IN DPP

>120,000 PATIENTS ENROLLED

50

STATES WITH ACTIVE OMADA ENROLLMENT

1,600,000,000+

DATA POINTS TURNED INTO HEALTH INSIGHTS

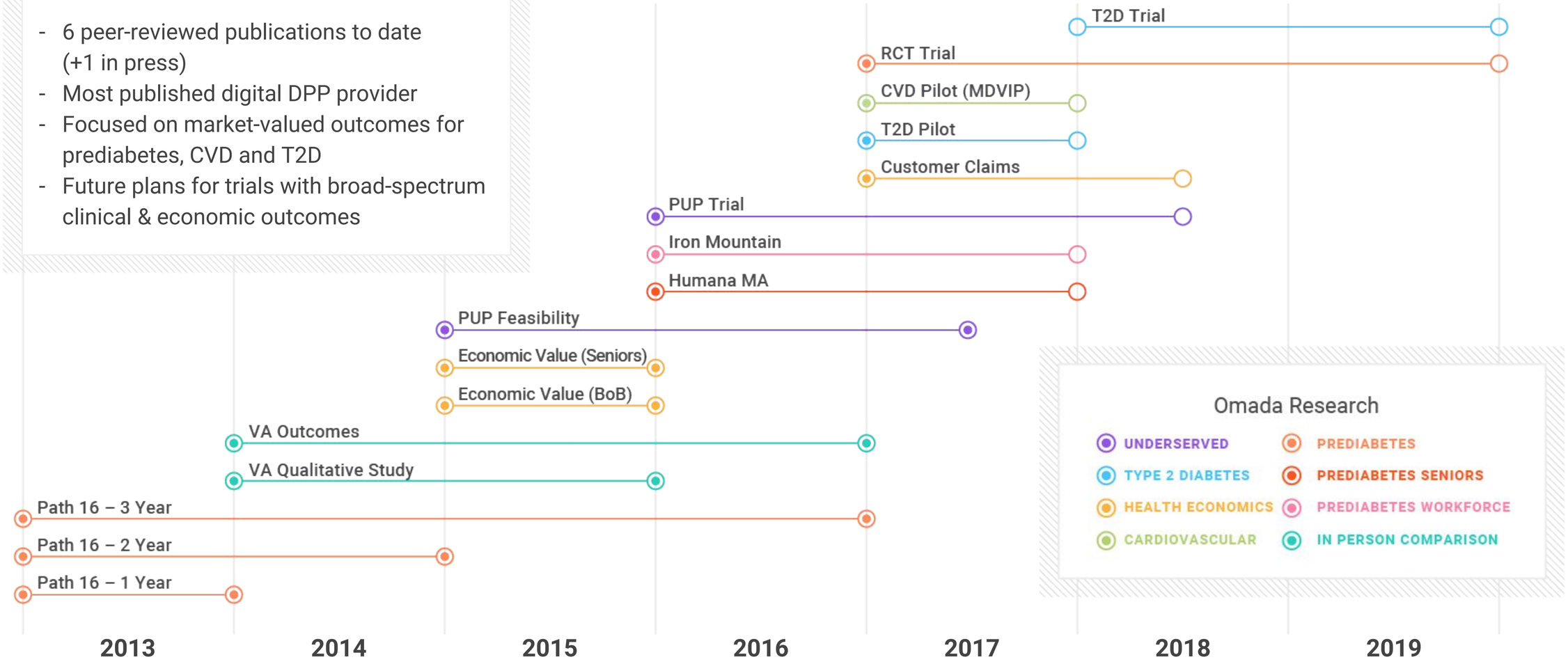
700,000+

POUNDS LOST

Based on data on file through August 2016

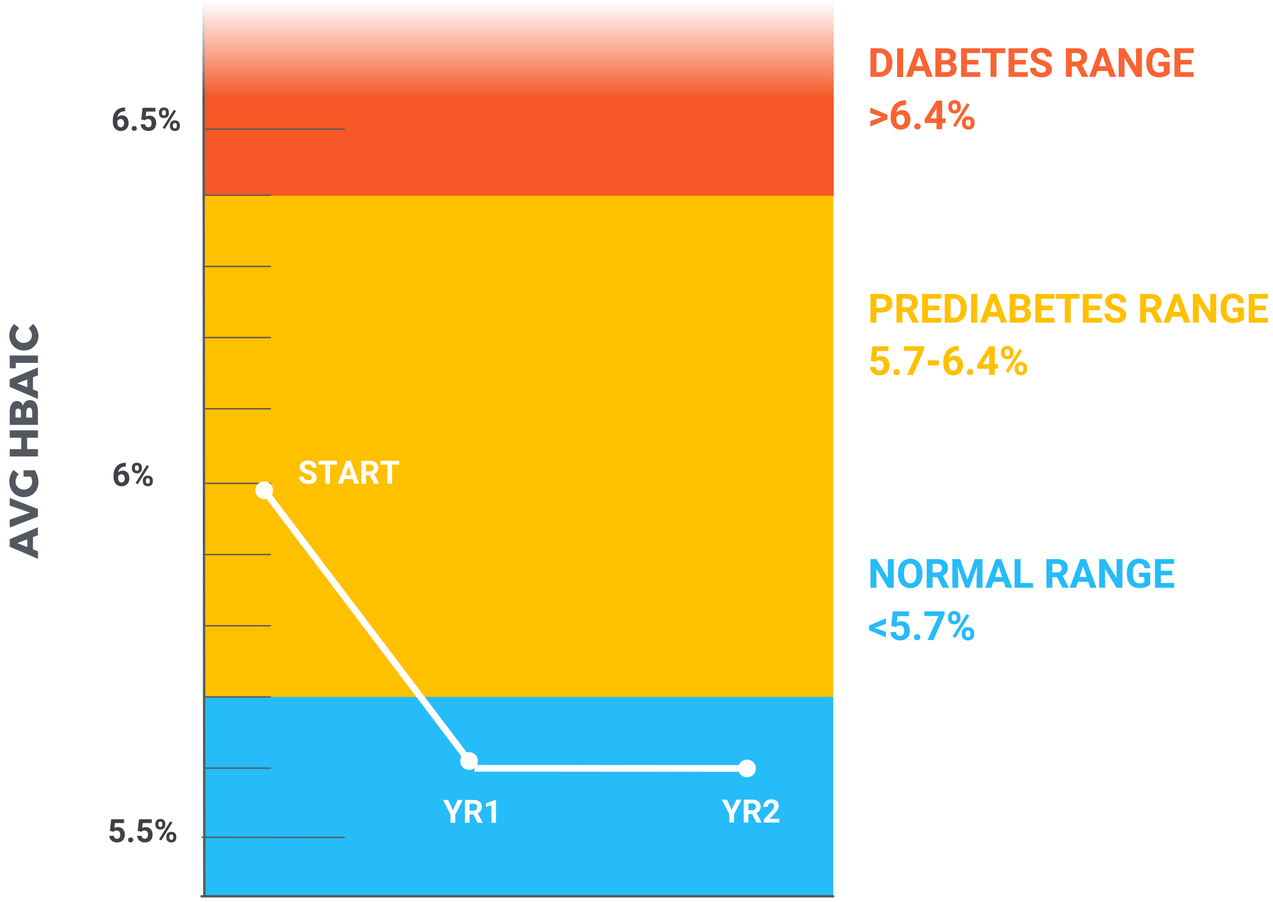
CLINICAL RESEARCH ROADMAP

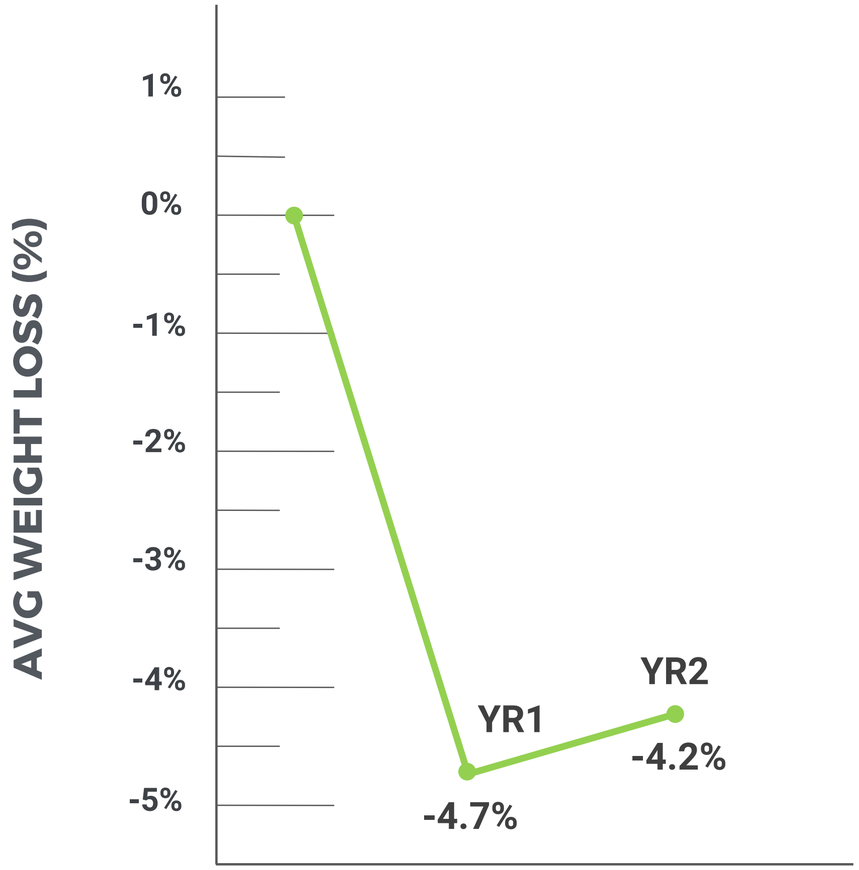
- 6 peer-reviewed publications to date (+1 in press)
- Most published digital DPP provider
- Focused on market-valued outcomes for prediabetes, CVD and T2D
- Future plans for trials with broad-spectrum clinical & economic outcomes



OUR OUTCOMES ARE PUBLISHED, BEST-IN-CLASS & LASTING

1- and 2-year results of single-arm study published in peer-reviewed journals





CDC DPRP Eligibility Criteria: Age 18+, BMI ≥24 kg/m2, Diagnosis of prediabetes, N=220
Sepah SC, Jiang L, Peters AL. Translating the diabetes prevention program into an online social network: validation against CDC standards. The Diabetes Educator. 2014; DOI: 10.1177/014572174531339
Sepah SC, Jiang L, Peters AL. Long-Term Efficacy of an Internet-Based Diabetes Prevention Program: 2-Year Study Outcomes. J Med Internet Res 2015;17(4):e92.

OUTCOMES: Weight Loss, HbA1c Levels, Total Cholesterol

Based on actual results from 501 Medicare Advantage beneficiaries, studied over a 12-month period

AVERAGE WEIGHT LOSS:

6.5% at 16 Weeks

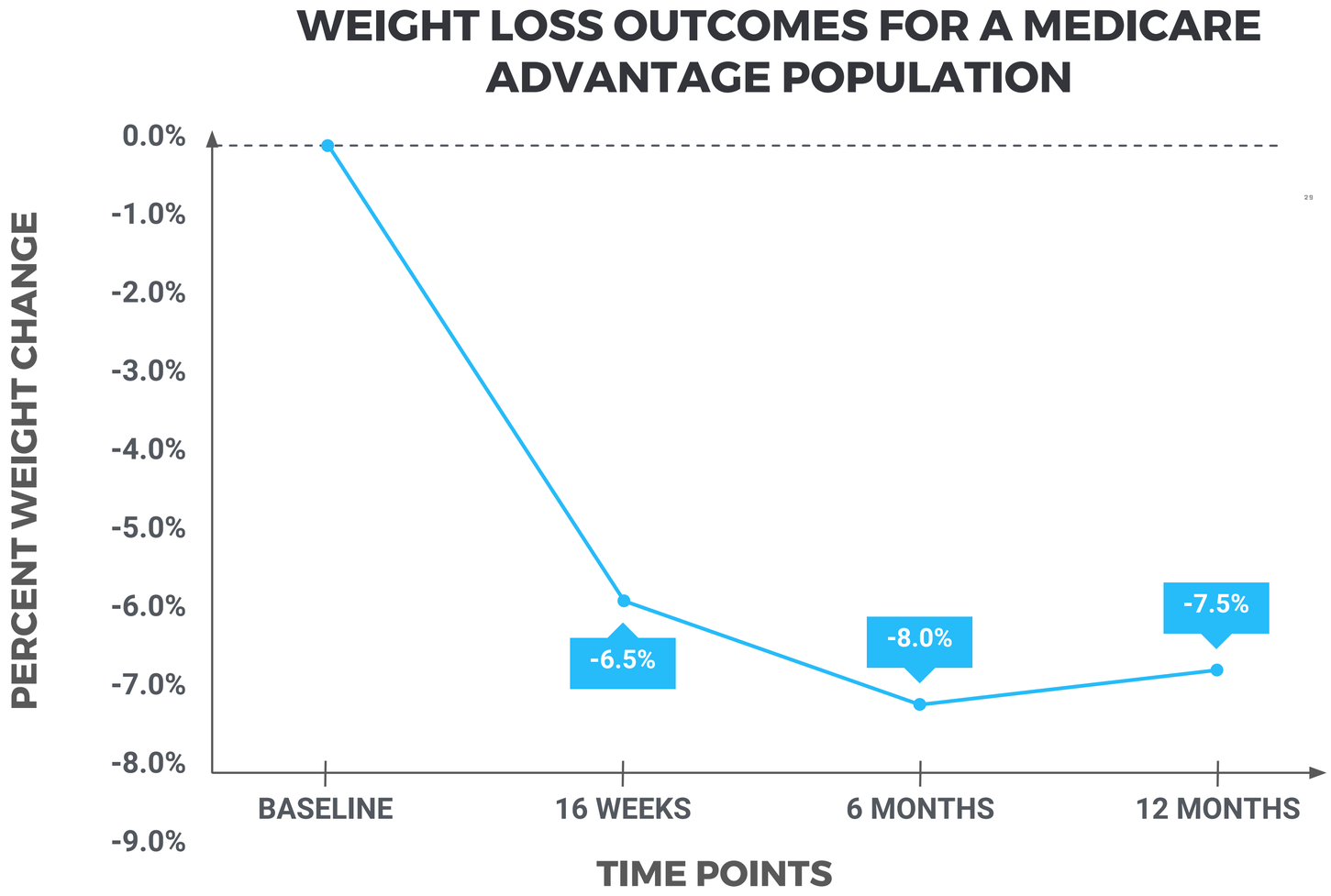
8.0% at 6 Months

7.5% at 12 Months

STATISTICALLY SIGNIFICANT REDUCTIONS IN:

Avg. Blood Sugar (HbA1c)

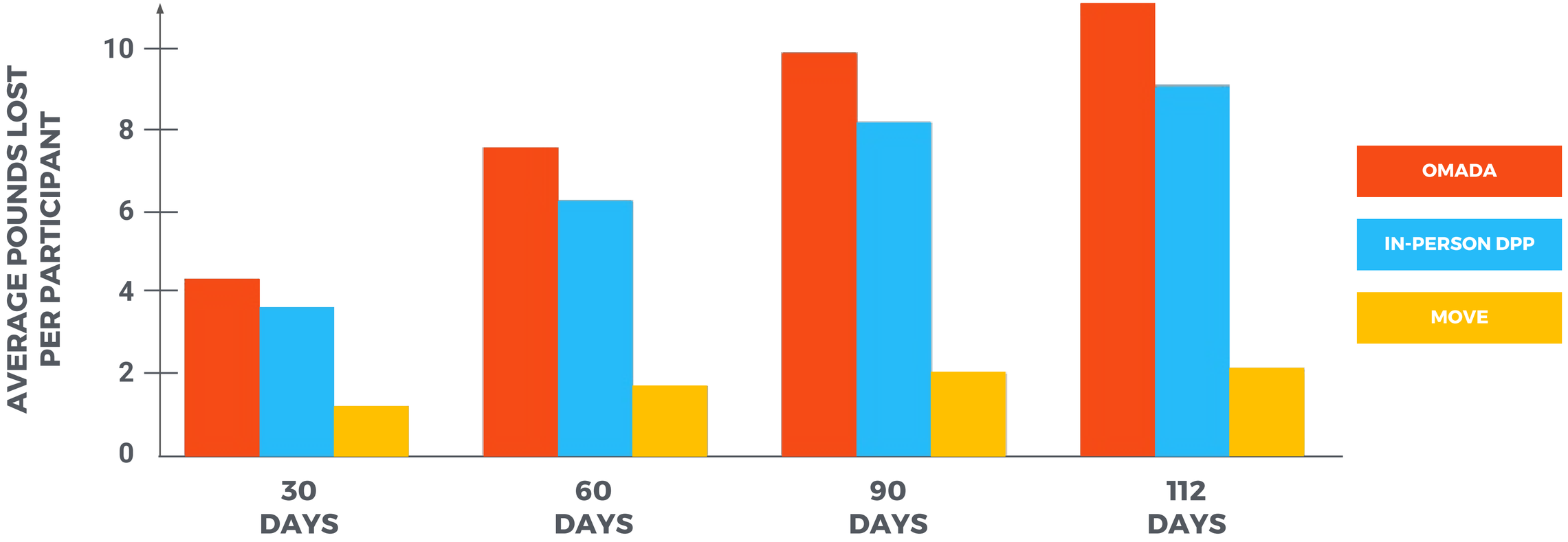
Total Cholesterol



Based on actual results from the Omada Program weight loss data, Markov Model of disease progression and associated costs
Su W, Chen F, Dall TM et al. Return on Investment for Digital Behavioral Counseling in Patients with Prediabetes and Cardiovascular Disease. Preventing Chronic Disease. In press.

OUR IMPACT IS GAME-CHANGING

COMPARATIVE WEIGHT CHANGE BETWEEN OMADA AND VA PROGRAMS, IN A VA POPULATION

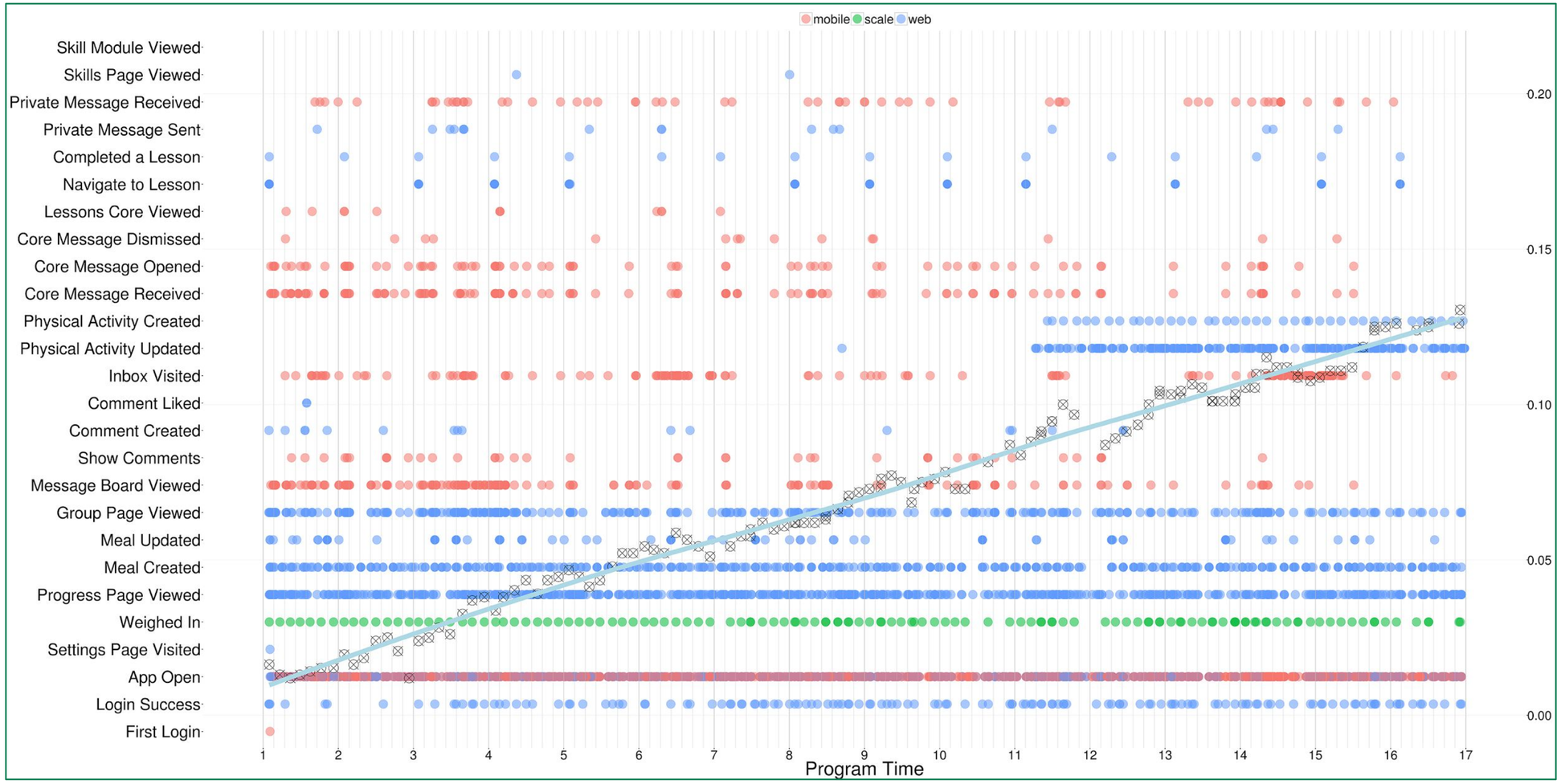


April 24, 2015 Society for Behavioral Medicine (SBM) conference presentation: Implementing Diabetes Prevention in the VA: Results from a Clinical Demonstration Project (Tannaz Moin, MD, MBA, MSHS, VA Greater Los Angeles, Los Angeles, CA; Caroline R. Richardson, MD, University of Michigan, Ann Arbor, MI; and Laura Damschroder, MS, MPH, VA Ann Arbor Center for Clinical Management Research, Ann Arbor, MI)
Results are preliminary and based on a non-randomized sample with unadjusted mean differences

OMADA

IMPROVING OUTCOMES WITH DATA SCIENCE

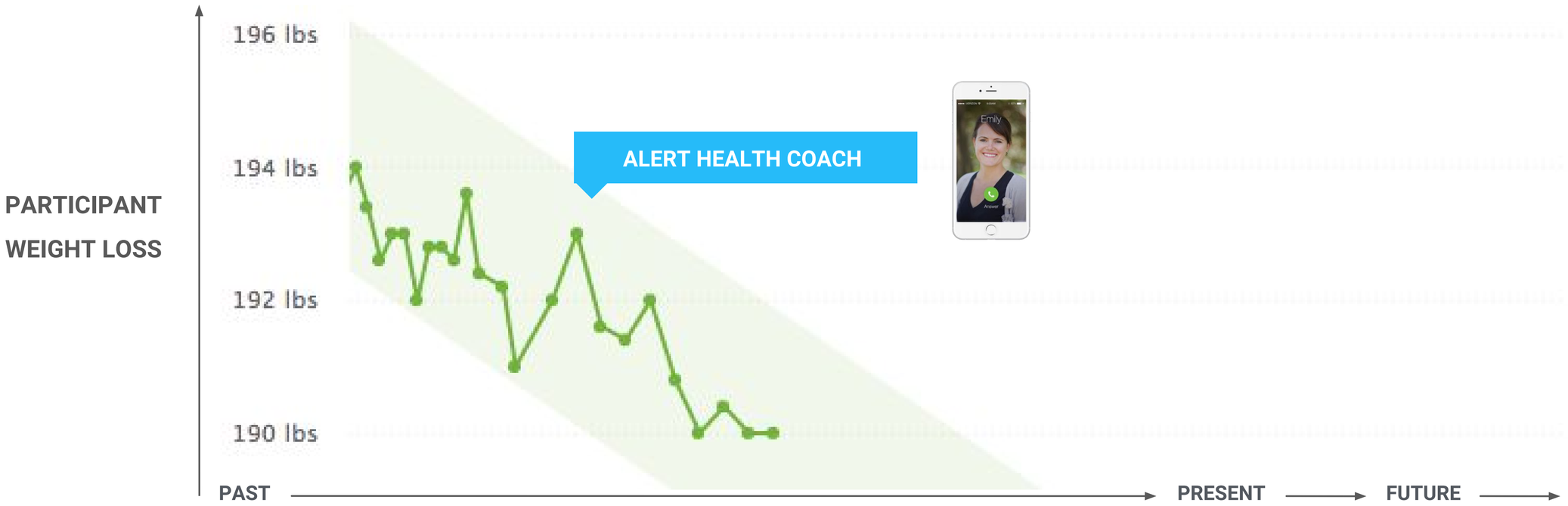
DATA SCIENCE = OUTCOMES CONTINUE TO GET BETTER



Backup Slides

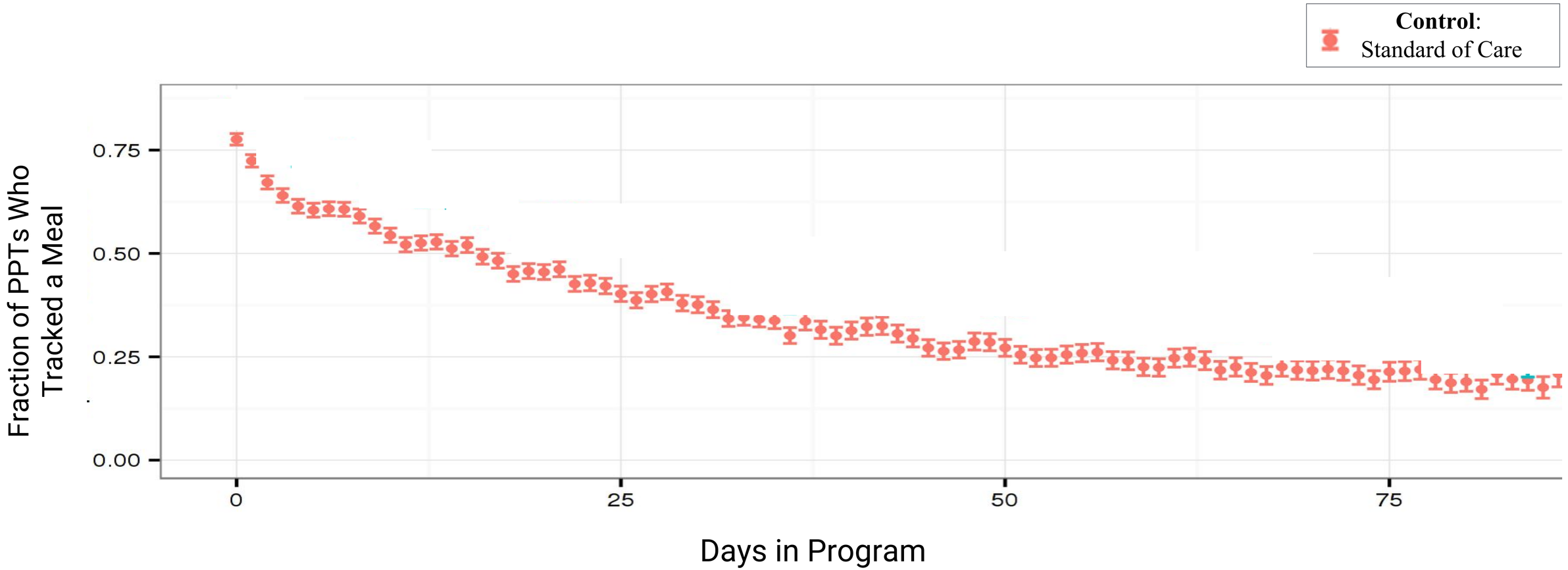
DATA SCIENCE: HEALTHCARE HAPPENS BETWEEN VISITS

We’re amassing the largest database in the history of behavioral medicine.
This allows us to spot patterns and intervene when participants need it most.



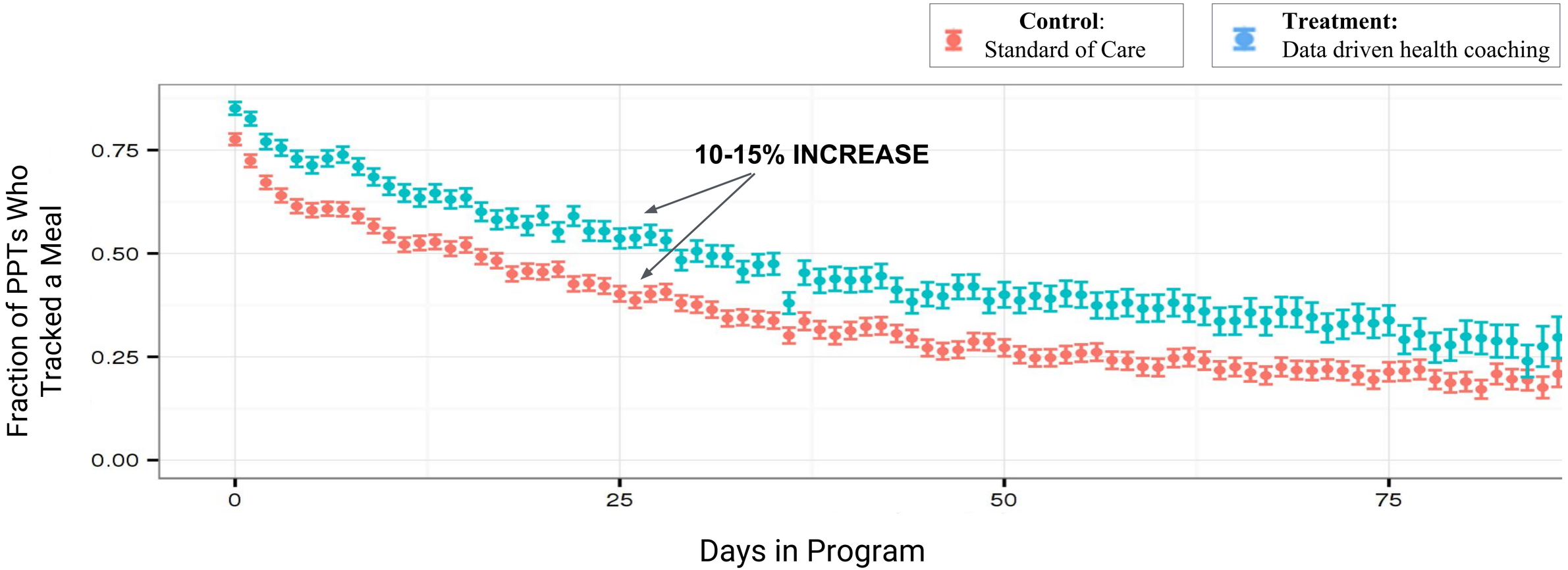
DATA DRIVEN HEALTH COACHING

Example: Coach Food Feedback



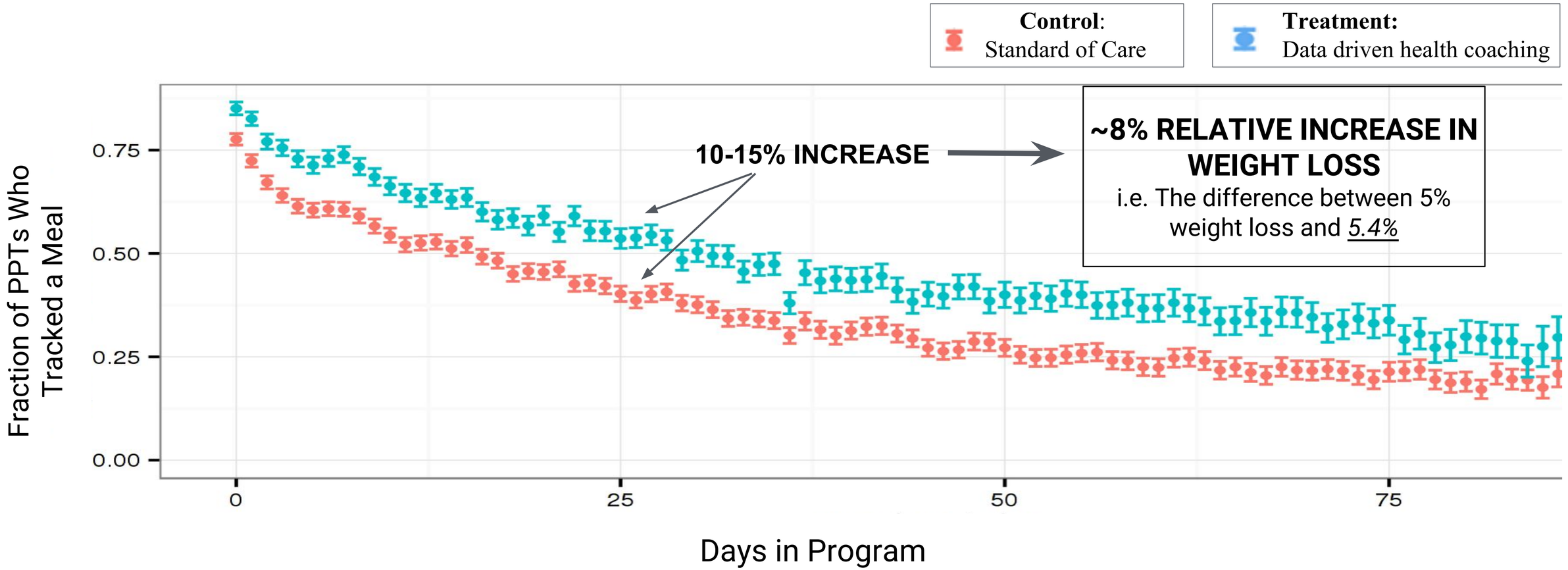
DATA DRIVEN HEALTH COACHING

Example: Coach Food Feedback



DATA DRIVEN HEALTH COACHING

Example: Coach Food Feedback



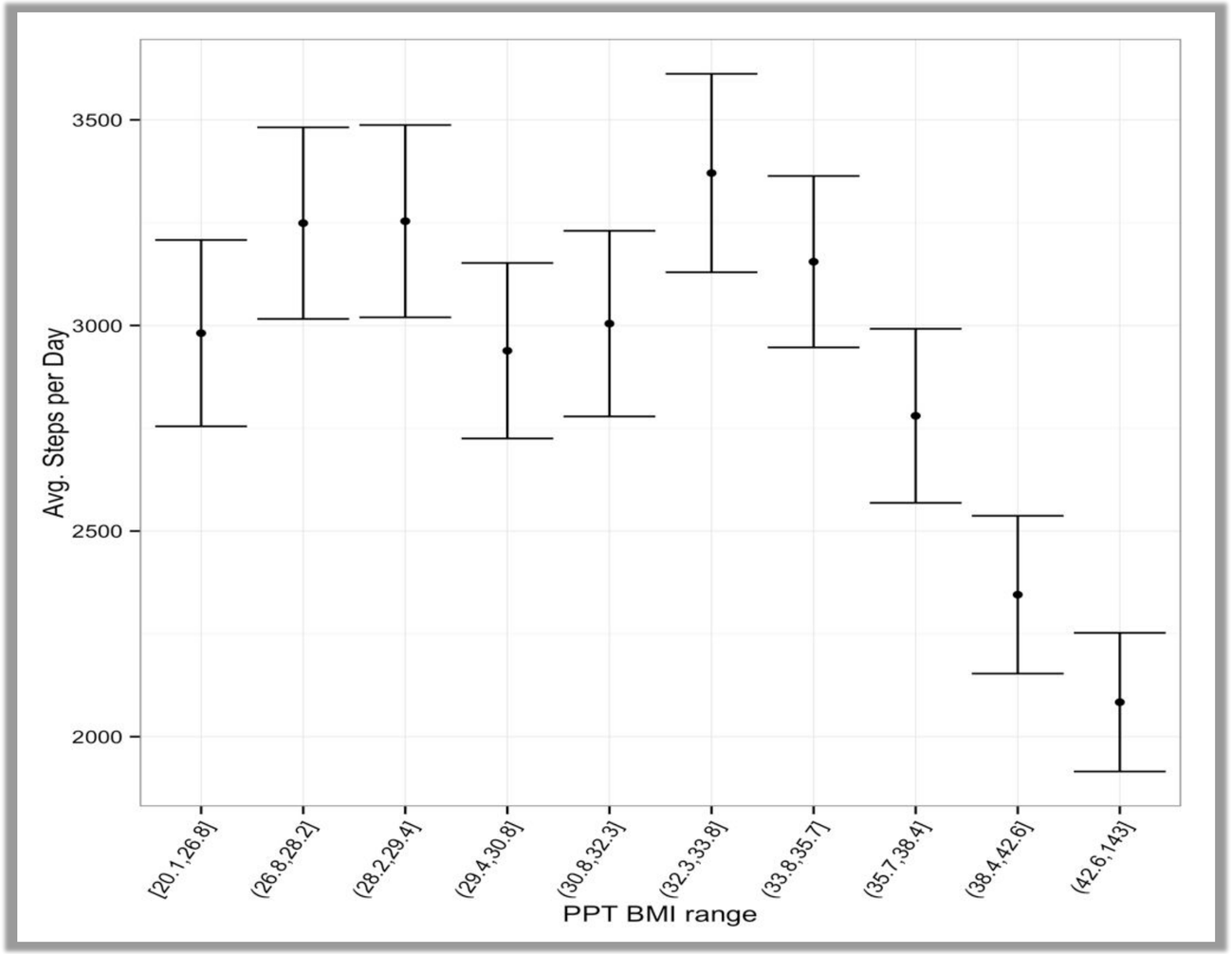
Physical Activity Engagement

- Physical activity is a large part of a healthy lifestyle
- The second phase of the Omada Program focuses on increasing patient's physical activity:

1. Providing pedometers to patients to collect physical activity ("steps") data
2. Educational components and health-coach interaction about exercise
3. Setting daily "step goals" for participants

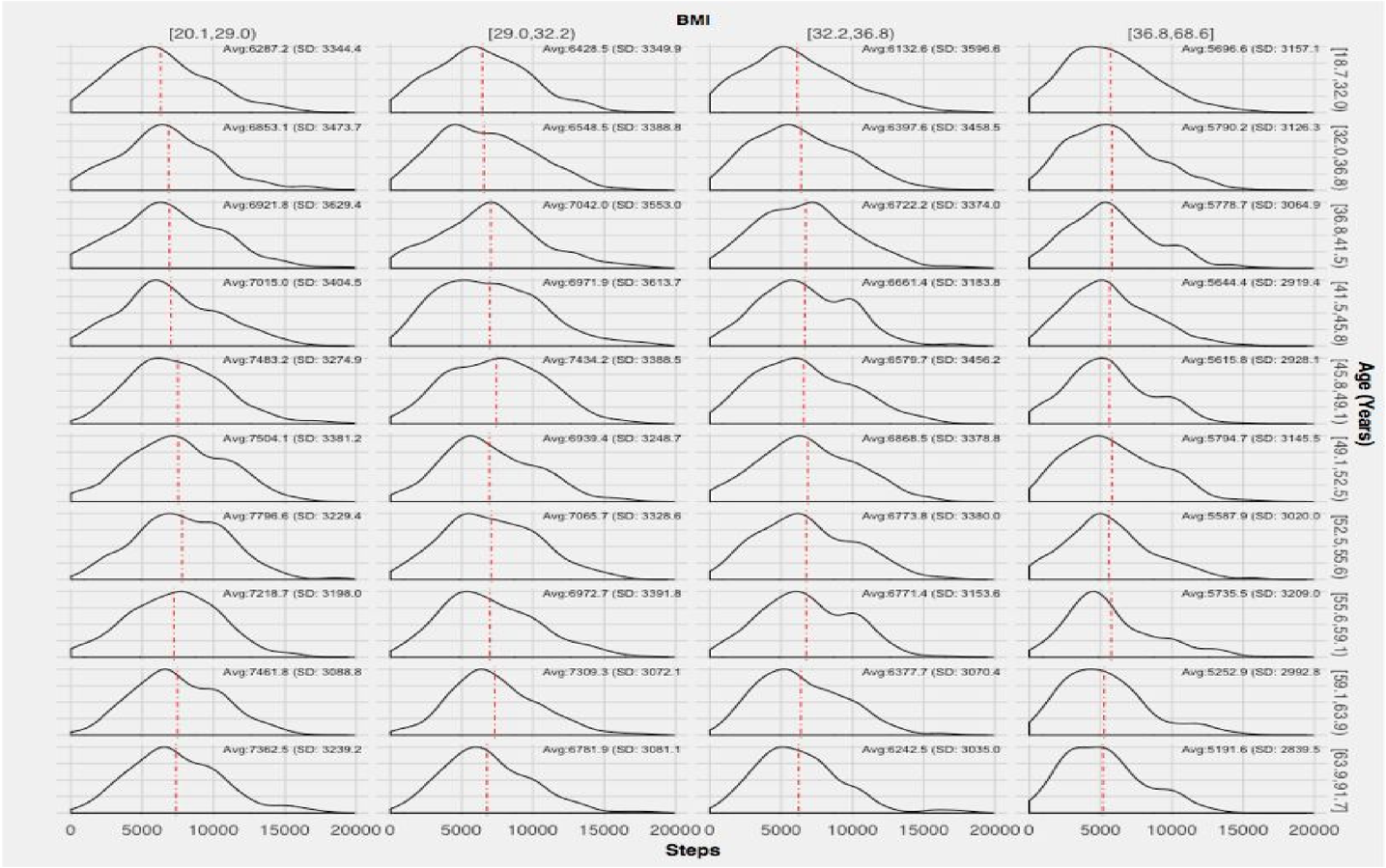
Personalization of Step Goals

What does the data tell us:



Personalization of Step Goals

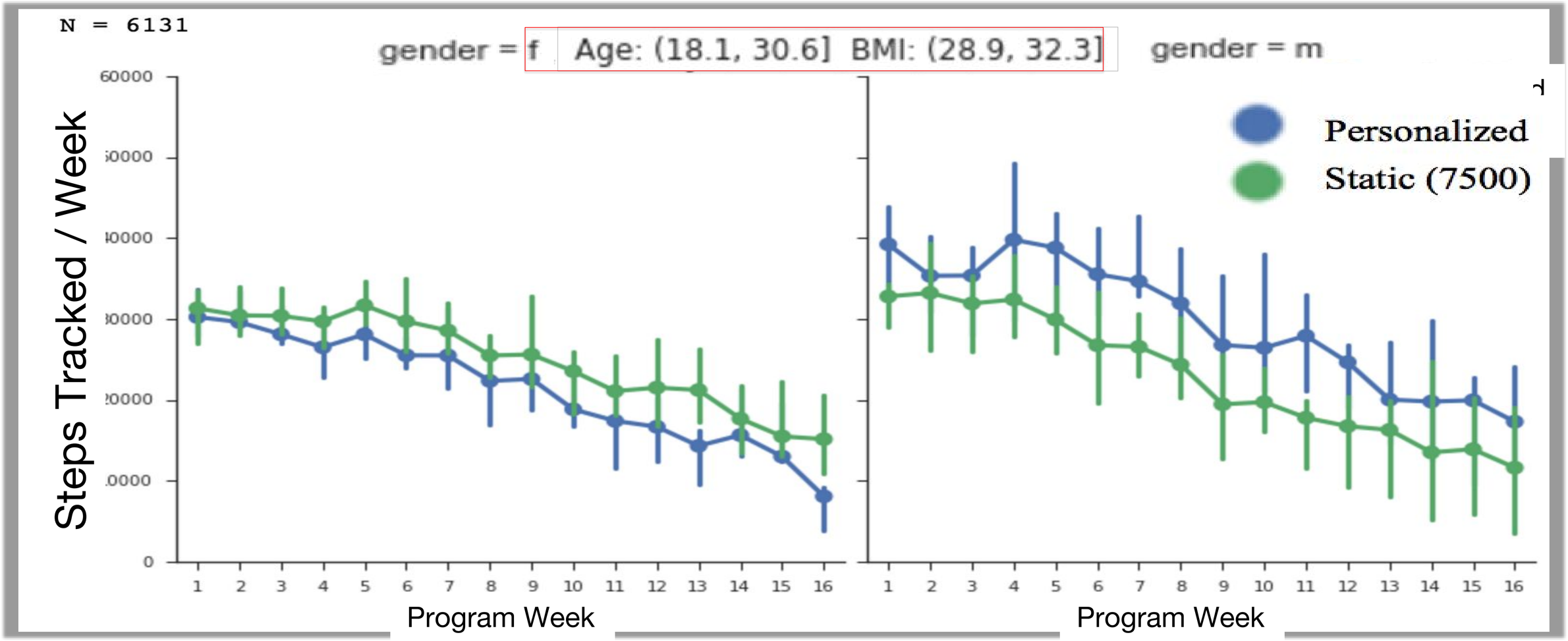
Historical steps recorded, segmented by age/BMI



→ Assign each participant a personalized step goal based on: similar age/BMI historical mean + 20%

Personalization of Step Goals

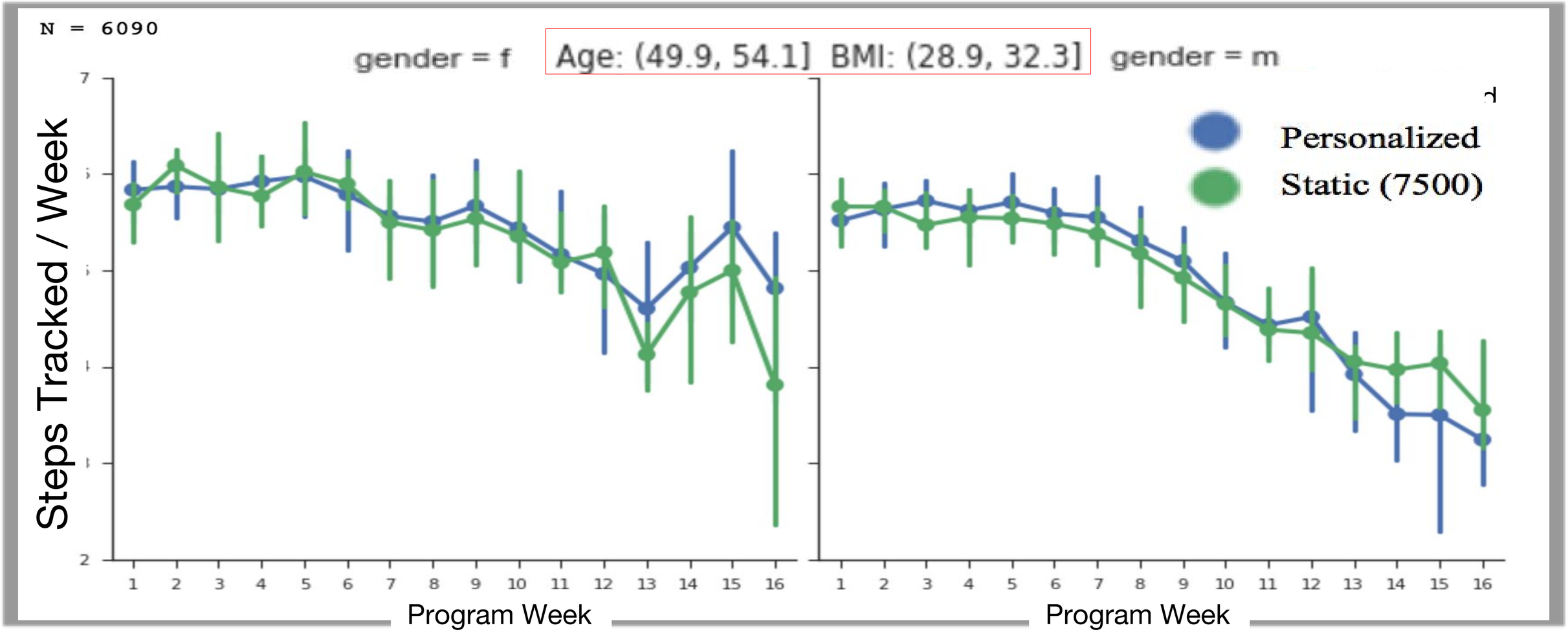
Experiment: 50% receive ‘personalized steps’, 50% receive static (7500/day)



*Adaptive goals may be more impactful for **younger [18-30] males***

Personalization of Step Goals

Experiment: 50% receive ‘personalized steps’, 50% receive static (7500/day)



No apparent effect in middle-aged adults

OUTCOMES: Weight Loss, HbA1c Levels, Total Cholesterol

Based on actual results from 501 Medicare Advantage beneficiaries, studied over a 12-month period

AVERAGE WEIGHT LOSS:

6.5% at 16 Weeks

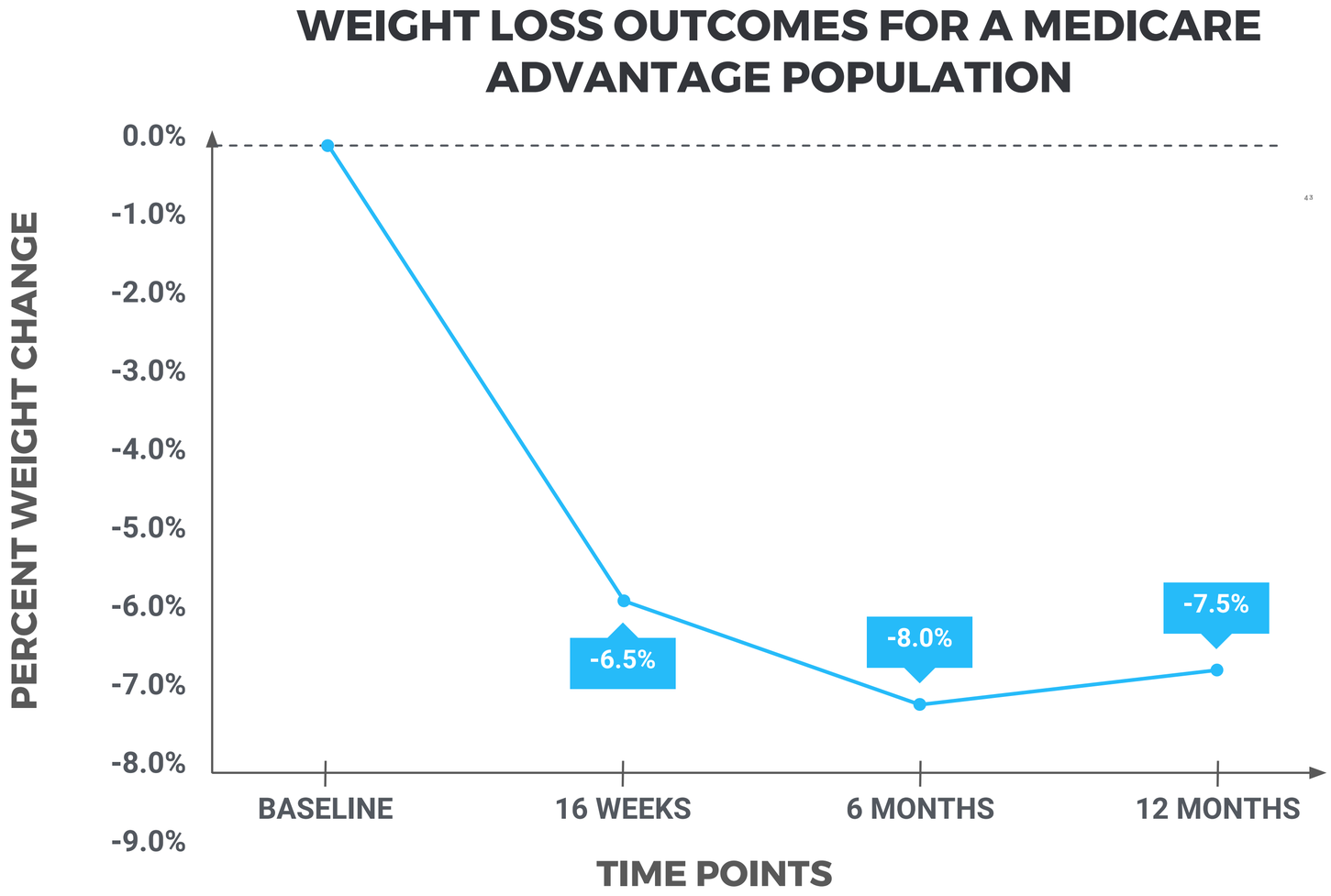
8.0% at 6 Months

7.5% at 12 Months

STATISTICALLY SIGNIFICANT REDUCTIONS IN:

Avg. Blood Sugar (HbA1c)

Total Cholesterol



Based on actual results from the Omada Program weight loss data, Markov Model of disease progression and associated costs
Su W, Chen F, Dall TM et al. Return on Investment for Digital Behavioral Counseling in Patients with Prediabetes and Cardiovascular Disease. Preventing Chronic Disease. In press.