

Quality health plans & benefits  
Healthier living  
Financial well-being  
Intelligent solutions



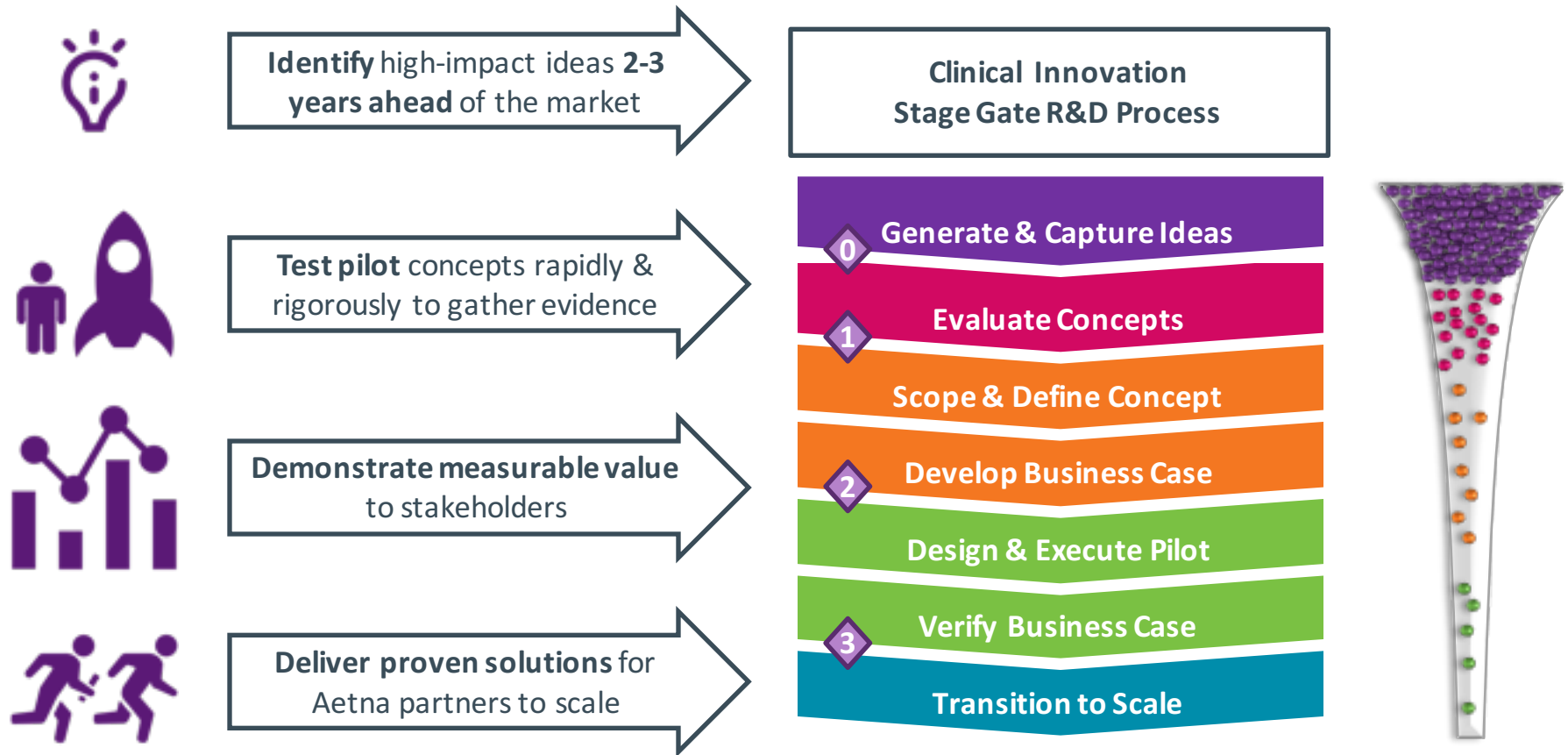
# National Association of Counties

## Aetna Innovation Labs

**February 20, 2016**



# Aetna Innovation Labs mission: Creating the Future



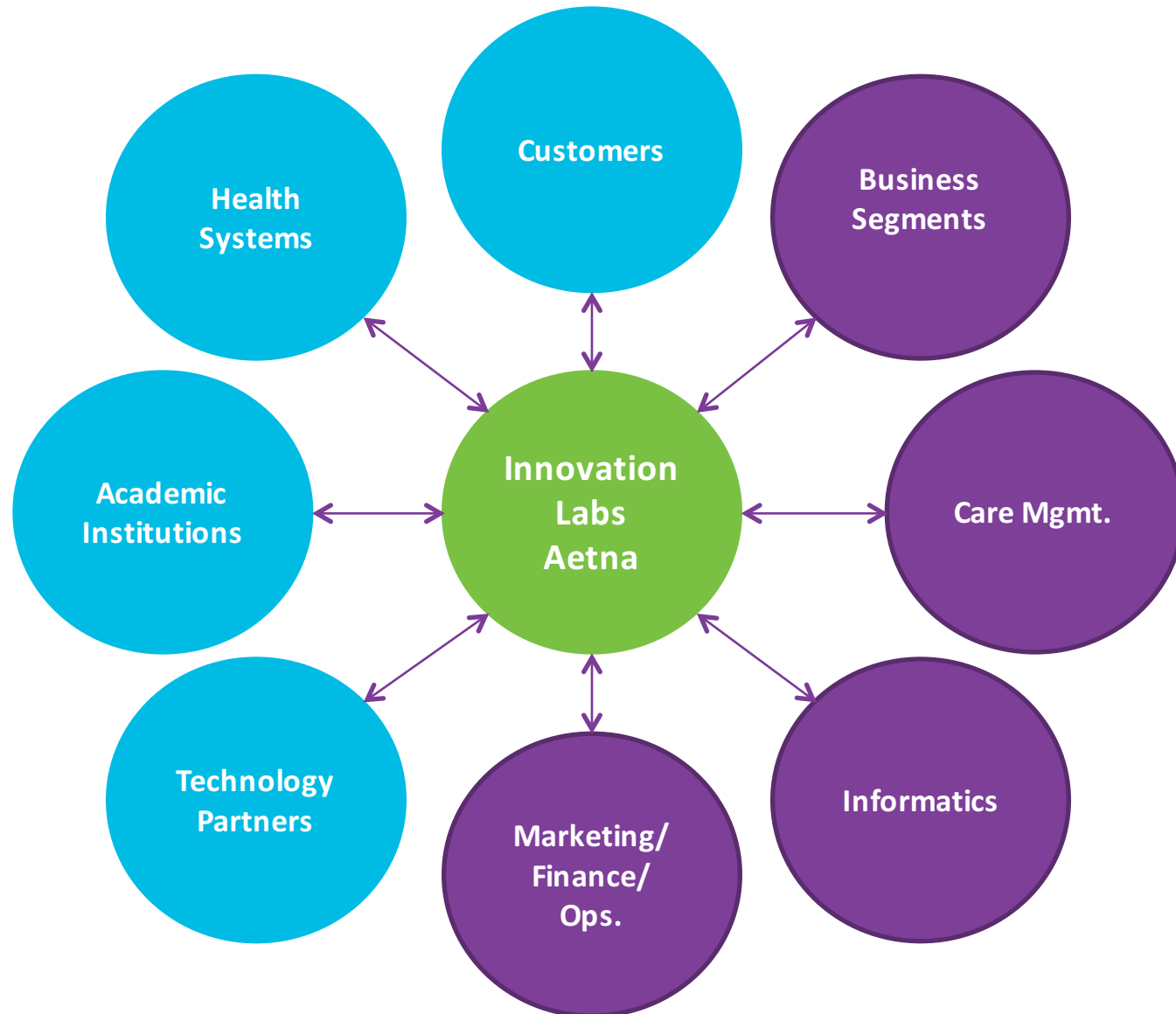
Where appropriate, initiatives focus on the top-spend condition areas

Cardiovascular | Cancer | Musculoskeletal | Maternity | Gastrointestinal | Mental Health

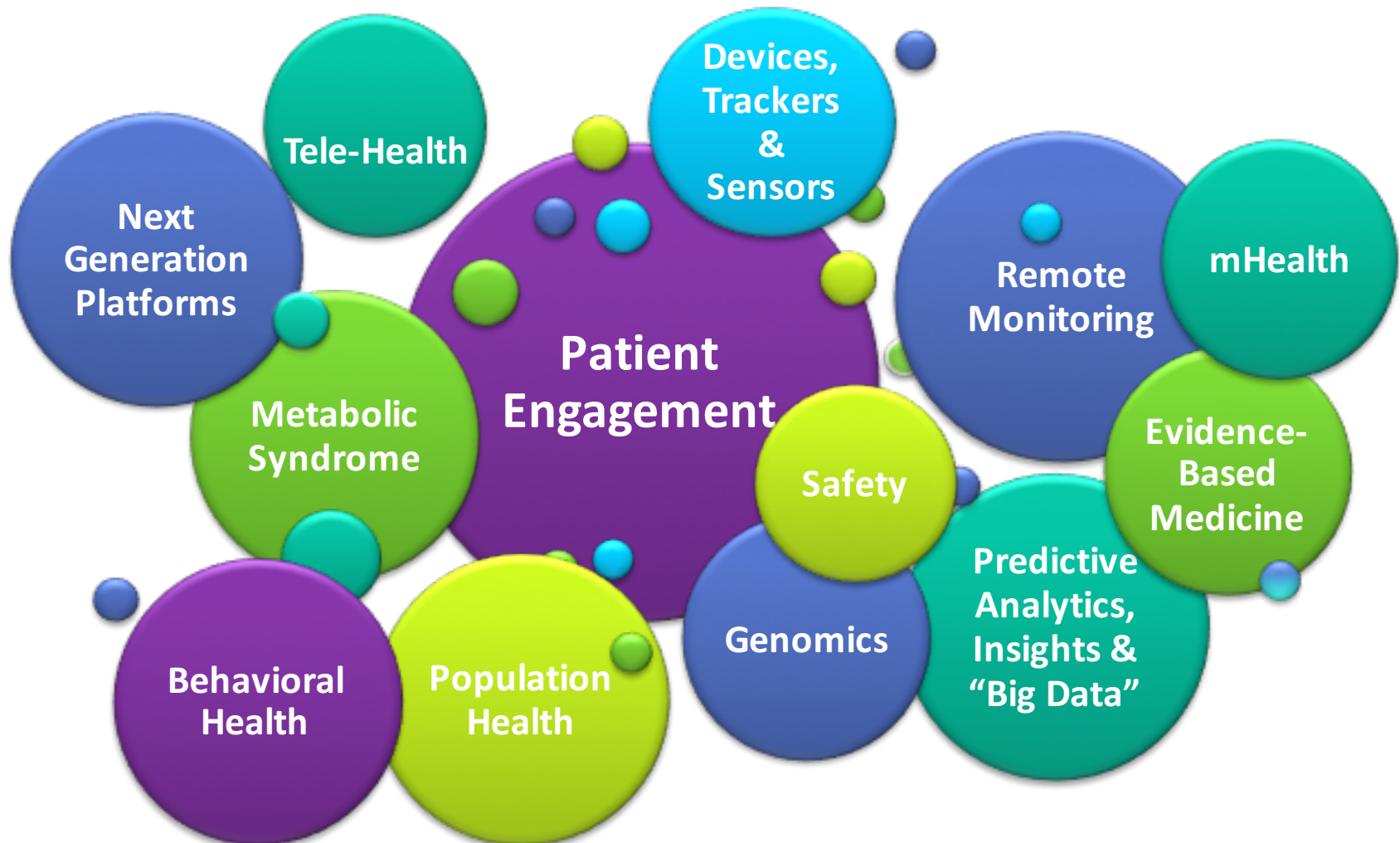
# Concepts are evaluated against 6 criteria as they move through the stage gate process

Criteria	Evaluation
Customer Need	<ul style="list-style-type: none"><li>• &lt;Description of target customer and unmet need&gt;</li><li>• &lt;Concept's Value proposition&gt;</li></ul>
Strategic Alignment	<ul style="list-style-type: none"><li>• &lt;Short description of how the concept aligns with strategic goals or business unit's strategic plan&gt;</li></ul>
Market Potential	<ul style="list-style-type: none"><li>• &lt;Estimate of market size and expected market growth rate&gt;</li><li>• &lt;Comment on the number of competitors in the market and where Aetna can strategically differentiate itself&gt;</li><li>• &lt;How the concept supports Aetna's brand and values&gt;</li></ul>
Risk Mitigation	<ul style="list-style-type: none"><li>• &lt;Description of known risks and how they could be mitigated&gt;</li></ul>
Execution Feasibility	<ul style="list-style-type: none"><li>• &lt;Description of what has kept Aetna from pursuing the concept in the past&gt;</li><li>• &lt;initial estimate of the investment needed to execute the concept&gt;</li><li>• &lt;Potential partners that have been identified&gt;</li></ul>
Internal Commitment	<ul style="list-style-type: none"><li>• &lt;High level description of the type of resources that would be needed to execute the concept&gt;</li><li>• &lt;State the likely sponsor or business unit to own the concept&gt;</li></ul>

**We collaborate with hundreds of partners both inside and outside Aetna to solve problems and improve healthcare**



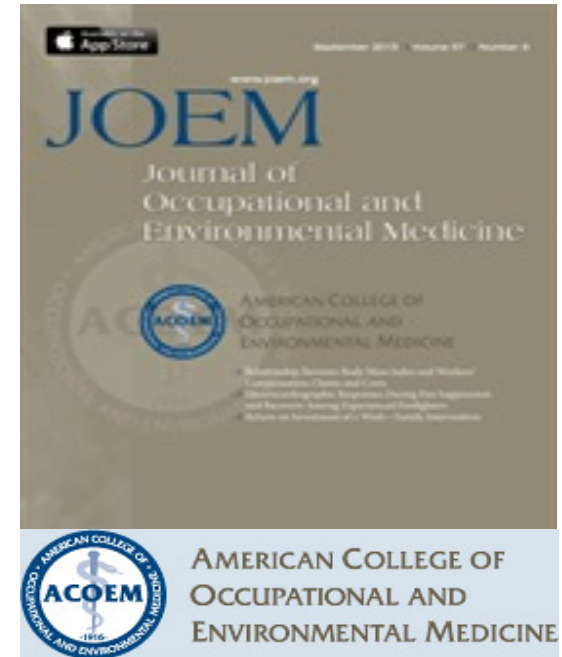
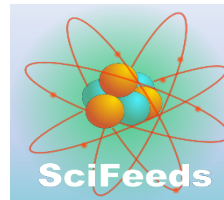
**Collaboration allows us to explore a number of areas that will drive value to those we serve**



# Aetna Innovation Labs and Experience with MetS



The New York Times  
MarketWatch  
FierceHealthPayer  
OLIVER WYMAN HEALTH



- Based on our robust claims data Aetna was able to **generate a highly accurate predictive model for individuals** (88% predictive)
- Central obesity is the largest driver of risk** and, if improved, the greatest driver of risk reduction

MedCity News, Business Insurance & more...

- Personalized MetS intervention that resulted in a **year savings of \$1,464**
- For participating members there was statistical significant improvements in waistline reduction, triglycerides, and HDL
- Participants lost an average of 10 lbs.

# Completed Pilot: Metabolic Syndrome (MetS): Reducing “Waist Circumference” Risk Factor

## Pilot:

The Aetna Metabolic Syndrome Pilot program aims to reduce an individual's MetS risk factors via Newtopia's high-touch, personalized, health program which combines online coaching with genetic testing to tailor a plan that creates healthier, more engaged, employees.

## Results:

- **Reduction in Medical Costs:** Reduced medical costs by \$122/participant/month for a positive ROI within 12 months
  - **Strong, Sustained Engagement:** 50% Program engagement at 1 year – compared to 25-35% ‘typical’ engagement rates with weight loss programs
  - **Clinically Relevant Weight Loss:** Statistically significant weight loss where 76% of participants lost an average of 10 pounds
  - **Results are published** in the Journal of Occupational and Environmental Medicine (JOEM)
- 
- Continue Year 3 sustained weight loss program
  - Soft roll-out to customers in 2015
  - Larger roll-out to customers in 2016

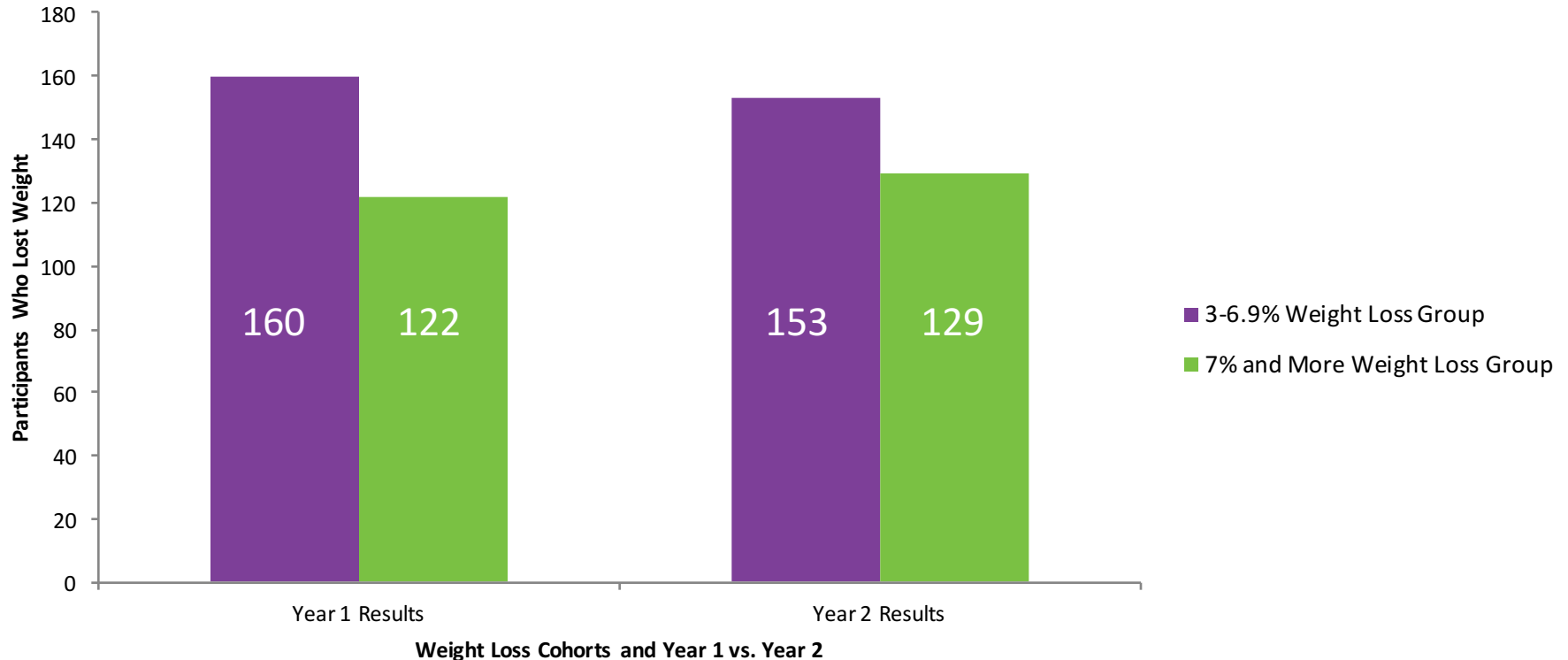
## Next Steps:





# Newtopia pilot participants have sustained weight loss into year 2

## Newtopia Sustain Weight Loss



**During the time period, 7 people successfully moved from the 3-6.9% weight loss group to the 7% or more group, while total weight loss was sustained for both groups**



# Domestic Digital Cognitive Behavioral Therapy (CBT): Improving Mental Health with Digital Platform

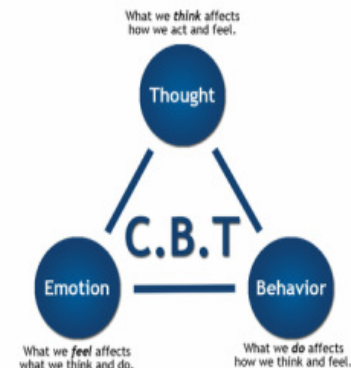
## Overview

- Tested using vendor MyStrength platform to reduce symptoms of stress, anxiety and depression
- Benefit is **to improve** mental health and work-life performance, **reduce costs** related to impact of depression and anxiety
- **~5,000** members
- Recruitment is **opt in** and was conducted via email outreach
- Pilot extended to **family members** over 18 years of age



## Design

- **9 month pilot**
- **Recruit participants and randomized** into the control group and 2 intervention arms, CBT alone or CBT + talk therapy
- Active intervention personalized account for **6 months**
- Control group received **7 weeks** of educational emails with option to access active intervention at week 8.
- Depression Anxiety Stress Scale (DASS) and Work Productivity and Activity Impairment Questionnaire (WPAI) **validated scales** used to measure impact



## Metrics

- Member **engagement and satisfaction**
- **Symptom reduction** for anxiety and depression
- **Improved productivity** outcomes

# Digital CBT domestic pilot results show it is both engaging and clinically effective

Statistically significant improvement in depression scores over control group	3.8x
Directional improvement in anxiety scores over control group	2.9x
Repeat myStrength users	71%
Users completing at least one exercise	46%
Average number of exercises completed	7.5
Average number of user logins	6.09

# Completed Pilot: Preventing falls in the Medicare population using Tai Chi

## Overview

### Based upon evidenced-based research of Dr. Fuzhong Li

- 4 armed pilot: 3 active intervention arms and one control group
  - Created evidence-based Tai Chi DVD
  - Recruited and trained over 60 instructors in partnership with the Maine Agency for Aging
  - Built on-line Tai Chi program
  - Enrolled close to 1,200 members from Maine

### Timeline

- Pilot conducted for 6 months; 60 minute sessions 2x/week from November 2013 – May 2014

### Self-reported surveys conducted in both control and active intervention arms

- 7 surveys were conducted over 6 months
  - Baseline survey at kick-off, focused on falls and near falls history
  - 5 surveys in program focused on member's changes in balance
  - Final survey at program conclusion focused on overall changes to falling and near falls and member satisfaction
- Non-Aetna members surveyed for classroom intervention arm



# The results of the study found a clear benefit and improvement for people in the Tai Chi group

**20%**

**Tai Chi group had fewer falls or near falls than control group**

**20%**

**Tai Chi group improvement related to being worried about falling**

**90%**

**High level of satisfaction, especially in classroom arm**

## Conclusions:

- Tai Chi in the elderly demonstrates objective benefits with respect to falls, near falls and balance perception
- High level of satisfaction amongst seniors. This has led to an extension of the program with our Agency for Aging partner in Maine
- Potential for significant savings

## Next Steps:

- Program Extension in the State of Maine
- Expansion of Tai Chi program to other areas of Medicare
- Analysis of utilization/cost analysis is being conducted with expected completion by end of 2015

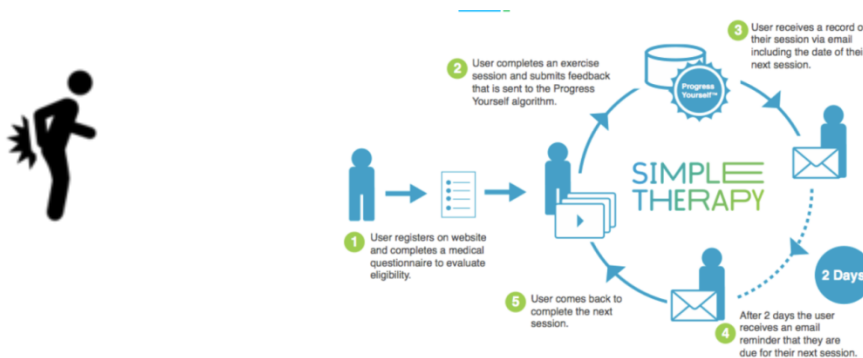
# Virtual PT / Musculoskeletal Telehealth: Customized virtual physical therapy

Pilot Status:  
Verify Results

## Pilot:

**Virtual**, automatically-**customized** physical therapy designed by academic orthopedists & physiatrists with over 300 **outcomes-driven** musculoskeletal modules

SimpleTherapy



## Benefits:

- **Reduction in Medical Costs:** Offering faster access to lower-cost physical therapy esp. for **lower back pain** and other high-cost musculoskeletal conditions, with potential for ~\$2k/case savings
- **Increased Engagement:** Personalization augments participant effort to maximize results, and improve productivity and presenteeism.

## Metrics:

- **Engagement:** Participation, persistency
- **Clinical Measures:** Pain control; function
- **Utilization:** MSK-related; procedure use; global

## Pilot characteristics:

- Offered to Aetna members at 3 plan sponsors – invited by post, email, onsite marketing, concierge referrals
- 297 registrations; 56 screened out → recommended physician evaluation, 241 registered users; 6 month pilot

### Self Reported Clinical Outcomes:

#### Participation/ Engagement:

- Avg Session Time: 19 minutes
- Avg number of sessions: 6
- % completing more than 2 sessions: 47%
- % enrolled in 2 or more programs: 28%

#### Symptoms:

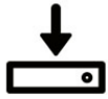
- Avg Starting pain level – 5.4
- Top Program Selections:
  - Lower Back: 93
  - Knee: 56
  - Shoulder: 34
  - Hip: 27
- % reporting pain decrease: 74%
- % reporting 50% or greater pain decrease: 27%
- % with complete resolution of pain: 5%

### Satisfaction Survey:

52 survey responses

- **100%** would recommend SimpleTherapy to family or friends
- **82%** rate SimpleTherapy 'easy to use' (7 or greater on a scale of 1-10)
- **83%** are very satisfied with SimpleTherapy (7 or greater on a scale of 1-10)
- Of the 21 respondents who had previous experience with in-person PT, **90%** felt SimpleTherapy was at least as effective in helping improve their symptoms
- **84%** respondents would prefer to use SimpleTherapy over in-person PT for future PT needs

# Virtual Physical Therapy With Real-Time Motion Feedback



Extreme Reality  
Cross-Platform SDK

Any 2D Camera

Full-Body  
Motion Control

## Solution:

- Virtual delivery of **digital physical therapy content** on any web connected device
- Clinical content developed by clinicians at **NYU Rusk Rehabilitation Center**
- **Real Time Motion Feedback** utilizing front facing cameras on mobile devices and/ or webcams on computers guides users to help optimize technique/ optimized movements

## Benefits:

- **Real Time Motion Feedback** mimics in-person physical therapy sessions, potentially replacing in person PT visits
- **Reduction in Medical Costs:**
  - Digital solution will be available on a subscription basis at a fraction of the cost of in-person PT
  - Easier and more convenient access to early physical therapy esp. for **lower back pain**, can produce savings from reduced need for imaging/ procedures with potential for ~\$2k/case savings
- **Increased Engagement:** Personalization augments participant effort to maximize results, and improve productivity and presenteeism.

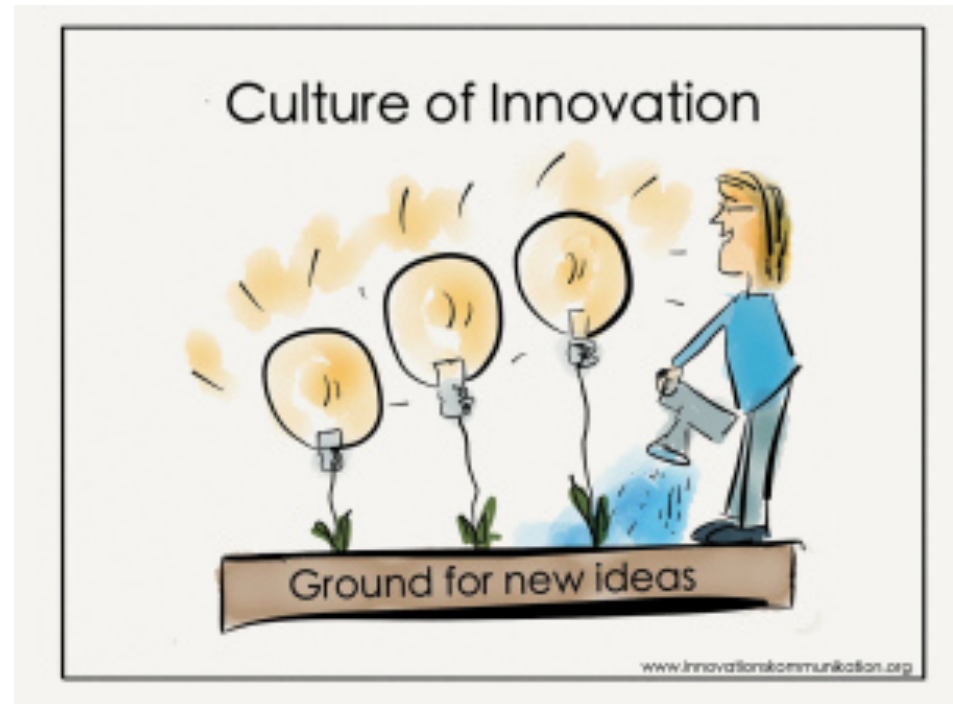


# Aetna Innovation Labs is charged with creating, cultivating, and sustaining a culture of innovation

## **Building a Culture of Innovation Begins with Empowerment &**

## **Providing the Encouragement and Opportunity to Innovation**

- Aetna TestDrive
- Patent & Intellectual Property Program
- Hackathons
- Innovation Challenges
- Innovator of the Year



# Aetna TestDrive

## Wearable device employee lending library

- Launched mid-November 2015
- Stocked with 18 market-leading products
- Operational in Hartford, CT and Phoenix, AZ Wellness Works centers
- Over 600 product rentals in 3 months, with 500 surveys completed to date
- Over 350 unique customers, returning over 250 times

### Brands include:

- |            |            |
|------------|------------|
| • Fitbit   | • Muse     |
| • Misfit   | • iHealth  |
| • Jawbone  | • Alivecor |
| • Lumo     | • Geopalz  |
| • Withings | • Pebble   |
| • Garmin   | • HealBe   |
|            | • Dharma   |



**TestDrive**  
*Try it on. Try it out. Try it free.*

# Aetna TestDrive

## Aetna Innovation Labs and wearables

- Distributor of all best-in-class wearables to customers for volume discounts, ranging from 20-40% off sale prices
- TestDrive product to be packaged and reproduced at customer locations
- TestDrive to be used as curation mechanism for early market feedback for VCs, accelerators, and incubators of wearables



**TestDrive**  
*Try it on. Try it out. Try it free.*

# Aetna Innovation Labs created Aetna's Patent Wall in Hartford, CT

## Patent Wall and Ceremony

- The wall commemorates all 31 patents Aetna has received in its history
- An interactive digital kiosk allows people to learn more about patents, our portfolio, and our patent goals
- On July 20<sup>th</sup>, we invited all active employees who are patent recipients to a Patent Recognition Ceremony to meet EC members and network with innovative colleague

## Patent Incentive Program\*

- All inventors named on an original, non-provisional, utility patent application will receive \$1,000 per filing, capped at \$4,000 per application
- If a patent issues on the same application, the same innovators will receive an additional \$500

...\*Funded by Patent Center of Excellence.....



# Hackathon

Engage all organizations within the enterprise with an opportunity to build a working product prototype, and ultimately reward novel ideas

## Goal

- Develop a working prototype of a product or solution that can be further developed, deployed at scale, while protecting it's IP

## Themes

- What product would you create to evaluate Provider Quality?

## Frequency

- Once a year, over a couple of months

## Reward

- Public recognition, financial reward to development team, opportunity to participate in the Innovator of the Year

# Innovation Challenge

Enterprise-wide Innovation Challenge that empowers all employees to think creatively and participate in the innovative

## Goal

- The goal of all Challenges is to ultimately create, develop, pilot, and commercialize a product or program to our customers

## Themes

- To receive a desired output, we must ask questions that provoke answers that are product or program-related specific to a clinical need

## Frequency

- Twice a year, in the spring and fall when vacation time is limited

## Reward

- Public recognition, fitness tracker, tablet product, opportunity to participate in Innovator of the Year

## Past Innovation Challenges

- If you were to recreate Aetna's Care Management program from scratch today, what would it look like?
- What would the ideal Childhood Obesity program look like?
- Create a consumer-facing product that can help improve women's health
- How would you create a consumer-focused solution by taking a strategy, practice, or product from another business or industry and apply it to healthcare



# Innovator of the Year

Annual culmination of all innovative ideas created through the Challenges and organically developed through the enterprise

## Goal

- Award the most innovative idea of the previous year, apply funding to that idea, and build internally to create the product

## Approach

- The contestant is coached one-on-one by an Innovation Labs executive for one month to build the idea and business case
- The idea is present “shark tank style” to Executive Committee members, as well as Chief Innovation Officers
- The CEO confers with the judges, and selects a winner

## Frequency

- Annual event

## Reward

- Highest Aetna honors, public recognition, cash reward, funding for idea, overseeing product development

## Past Innovators of the Year

- Aetna CarePal
- Health Wealth
- Aetna Local Link



# Aetna CarePal: Peer-to-Peer Matching Support

Pilot Status:  
Development

## Pilot

- By combining claims data and registration information, a newly diagnosed woman is matched with an experienced woman with a similar diagnosis and a similar demographic/social background for mentoring and support.
- Original pilot launch to match newly diagnosed breast cancer patient, with an additional pilot addressing autism



## Benefits

- Matched CarePals share insights to **optimize healthcare utilization** by tapping into passion and knowledge among members in costly lifestyle health verticals.

## Metrics

- Experience may improve physical and mental health outcomes and reduce treatment complications (anemia, nausea/vomiting, thromboembolism, neutropenia, etc.)



# Health Wealth

## Principles of Financial Planning for Health

Pilot Status:  
Development

### Pilot:

Planning tool focused on long term health goals that provides informed decision making of future healthcare costs while showing you all the money you are saving by being healthy

### Benefits:

- Changes how members **think** about their health and health spending.
- Helps **direct** members toward Aetna content and contracted services.
- Shows that Aetna is here to partner with you for a **lifetime**, building brand loyalty.
- Improve consumer understanding of short and long term financial implications of health; quantifying the value of staying or getting healthy increases motivation.



### Metrics:

- Satisfaction and engagement with the tool
- Lower medical spend per engaged user
- Clinical outcomes

# Thank you



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