

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

**aetna**<sup>®</sup>

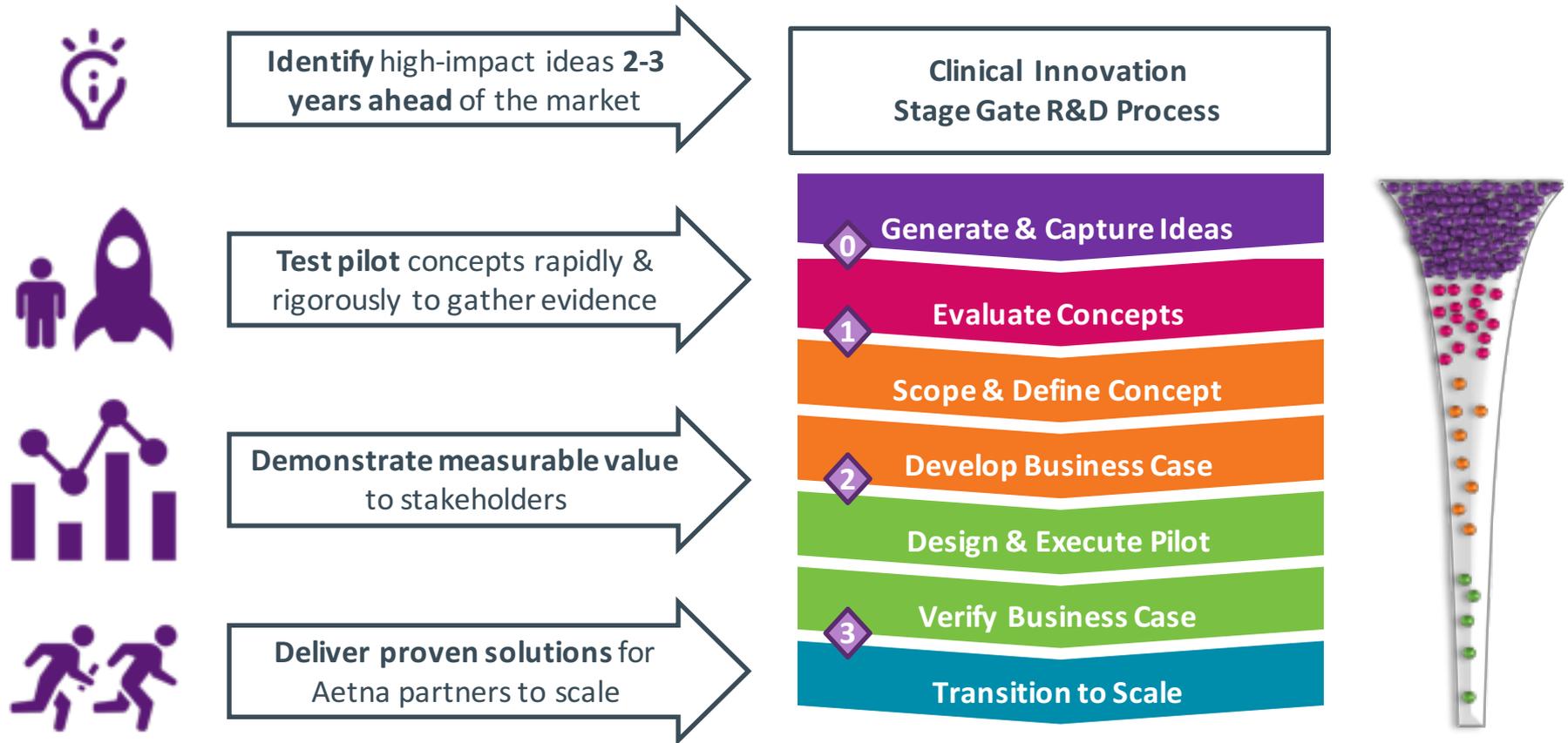
# National Association of Counties

## 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

- <Description of target customer and unmet need>
- <Concept's Value proposition>

### Strategic Alignment

- <Short description of how the concept aligns with strategic goals or business unit's strategic plan>

### Market Potential

- <Estimate of market size and expected market growth rate>
- <Comment on the number of competitors in the market and where Aetna can strategically differentiate itself>
- <How the concept supports Aetna's brand and values>

### Risk Mitigation

- <Description of known risks and how they could be mitigated>

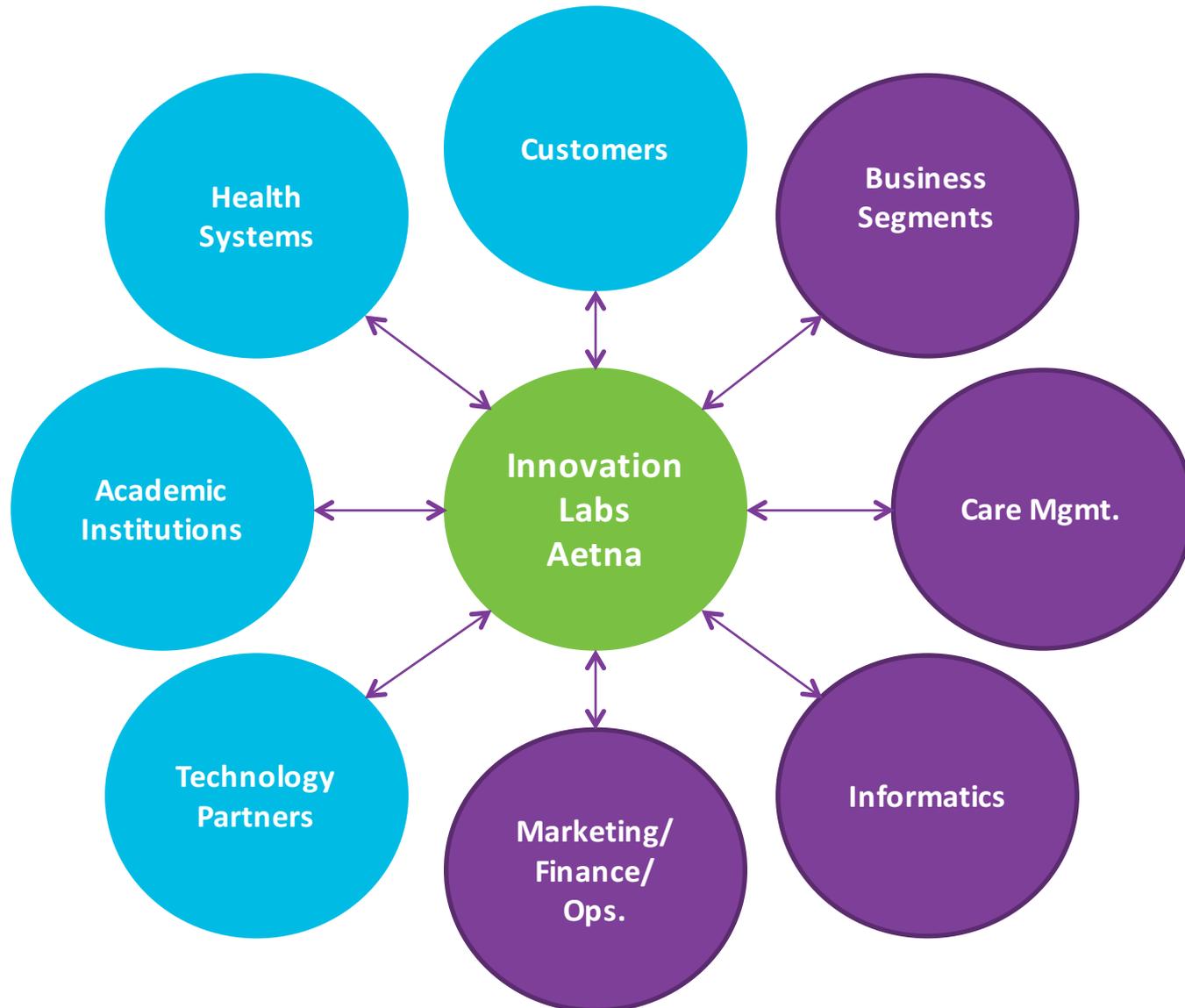
### Execution Feasibility

- <Description of what has kept Aetna from pursuing the concept in the past>
- <initial estimate of the investment needed to execute the concept>
- <Potential partners that have been identified>

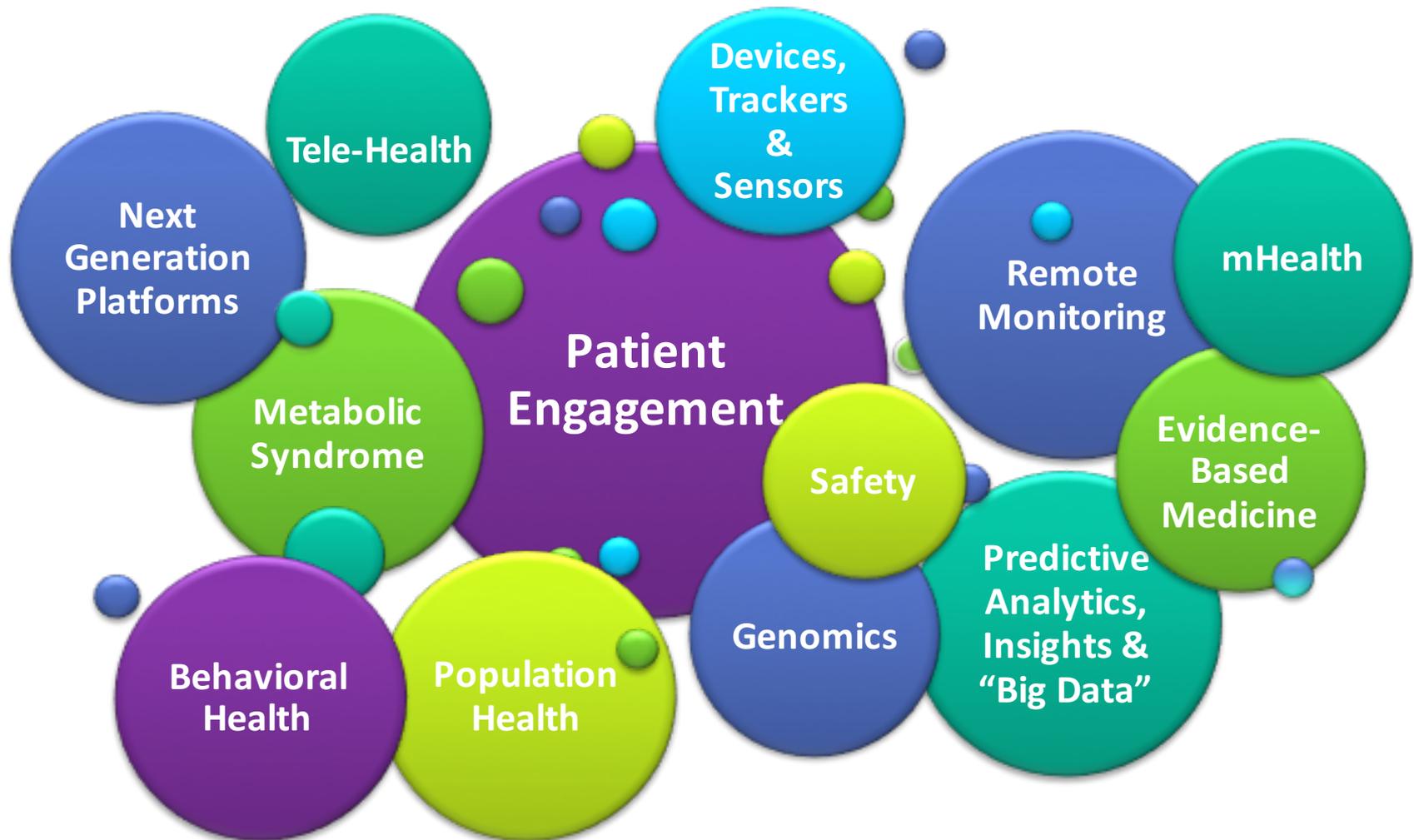
### Internal Commitment

- <High level description of the type of resources that would be needed to execute the concept>
- <State the likely sponsor or business unit to own the concept>

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



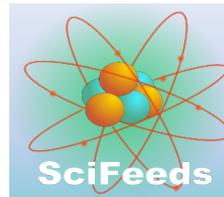
# Collaboration allows us to explore a number of areas that will drive value to those we serve



# Aetna Innovation Labs and Experience with MetS



The New York Times  
 MarketWatch  
 FierceHealthPayer  
 OLIVER WYMAN HEALTH



MedCity News, Business Insurance & more...

- 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

- 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:

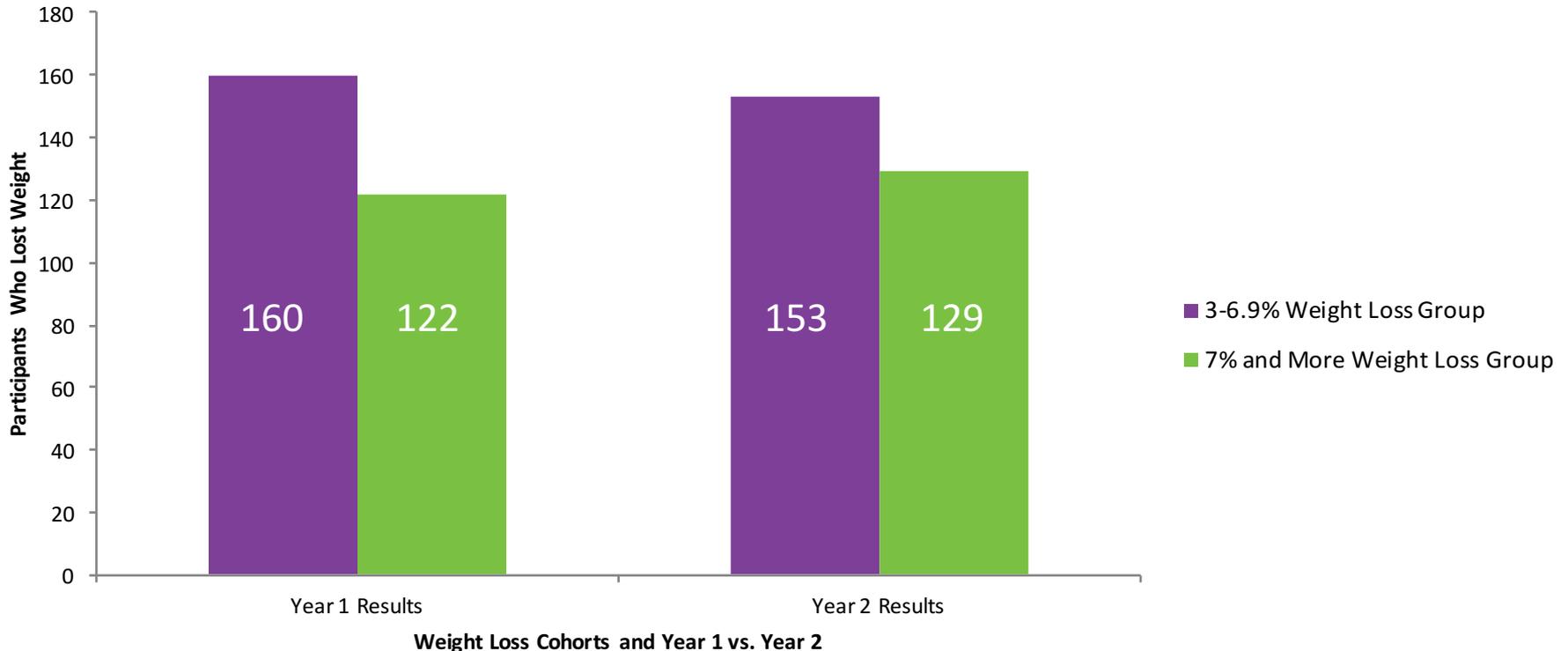
- **Reduction in Medical Costs:** Reduced medical costs by \$122/participant/month for a positive ROI within 12 months
  - **Strong, Sustained Engagement:** 50% Program engagement at 1 year – compared to 25-35% ‘typical’ engagement rates with weight loss programs
  - **Clinically Relevant Weight Loss:** 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

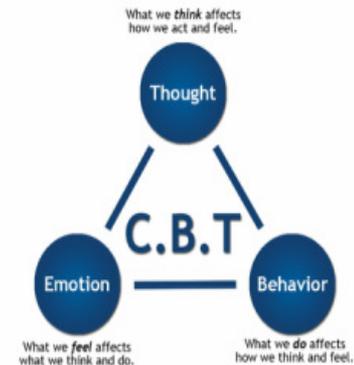
## Overview

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

# 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:

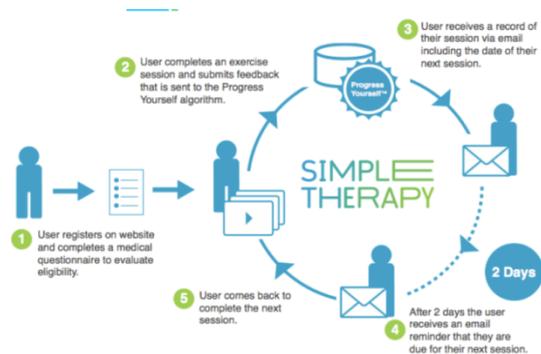
- Program Extension in the State of Maine
- Expansion of Tai Chi program to other areas of Medicare
- Analysis of utilization/cost analysis is being conducted with expected completion by end of 2015

# 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



## 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:

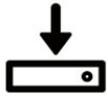
- Avg Starting pain level – 5.4
- Top Program Selections:
  - Lower Back: 93
  - Knee: 56
  - Shoulder: 34
  - Hip: 27
- % reporting pain decrease: 74%
- % reporting 50% or greater pain decrease: 27%
- % with complete resolution of pain: 5%

### 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
- Misfit
- Jawbone
- Lumo
- Withings
- Garmin
- Muse
- iHealth
- Alivecor
- Geopalz
- Pebble
- HealBe
- Darma



**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

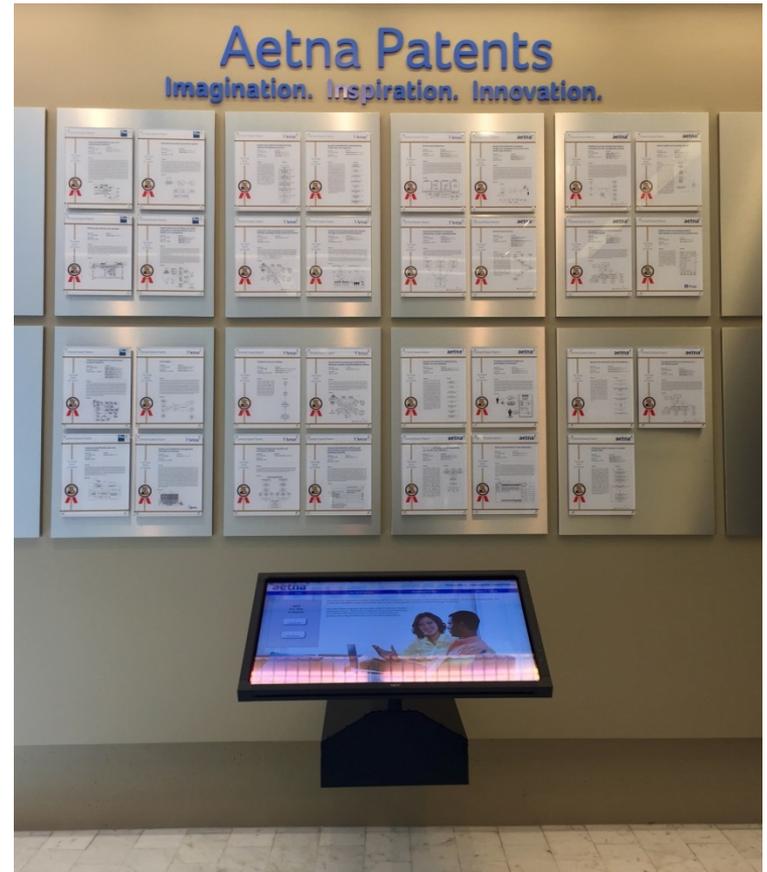
## Patent Wall and Ceremony

- 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

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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

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### 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.
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### Metrics:

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

# Thank you



**Kristofer Caya, MBA**  
Director, Aetna Innovation Labs  
CayaK@AETNA.com



**Kyle Niejadlik, MA Economics**  
Associate Director, Aetna Innovation Labs  
NiejadlikK@aetna.com

**aetna**<sup>SM</sup>