

**A Framework
to provide
Digital Health Coaching
for
FFS Medicare Beneficiaries
who have a Chronic Disease**

Steven White

Vice President

Phone: (734) 623-5471

swhite12@lts.inj.com

Johnson & Johnson

HEALTH &
WELLNESS
SOLUTIONS

Proprietary and Confidentiality Notice

This confidential document is not binding, and may not be construed to be a contract. This document contains confidential and proprietary trade secrets of Johnson & Johnson Health and Wellness Solutions. Its contents may not be disclosed by an authorized recipient without Johnson & Johnson Health and Wellness Solutions prior written consent.

COMPANY OVERVIEW

OUR VISION

Change the face of healthcare by inspiring and empowering individuals to live more fulfilling lives by improving their health.

On behalf of Johnson & Johnson Health and Wellness Solution (HWS), we are pleased to share with you this framework to provide our digital health coaching programs in support of Medicare's Fee For Service beneficiaries. Digital coaching programs blend technology and behavior change science to empower individuals to take more ownership of their health by providing them with a way to learn the skills that they need to be more successful at self-management of their health. Digital coaching programs are used today by payers to support their commercial business and Medicare Advantage business. Our digital coaching programs have proven themselves to be a very cost effective vehicle for helping payers address the challenges of the triple aim of lowering cost, while improving quality and satisfaction in these populations. These programs are a cost effective, highly impactful program to address the challenges of the triple aim and actual claims data has shown that they have delivered a positive return on investment for our payer customers.

Our digital health coaching programs have been in the market for 14 years delivering high quality behavior change outcomes for that entire period of time. These self-management tools were born out of academia and use best in class behavior change science models along with a personalization technology to emulate the experience a beneficiary might receive in a one on one health coaching session either in person or over the telephone, but in a highly scalable, and efficacious technology based solution.

Johnson & Johnson Health and Wellness Solution's programs are currently being used by over 20 different health plans including large commercial plans, managed Medicare and Medicaid plans as well plans servicing the Individual health insurance needs. Collectively, our program offering is available to over 30 million Americans and our powerful behavior change platform has been delivering outcomes and proven results to our health plan customers for over a decade.

We believe that our programs, that have been used by millions of patients of all ages and that have proven their abilities to positively impact the goals of the "triple aim" to improve health outcomes and patient satisfaction with healthcare experience while reducing overall cost of health care, can also achieve similar success with Fee For Service Medicare beneficiaries.

A CHALLENGE THAT WE CAN HELP ADDRESS

As our population ages, chronic disease becomes more prevalent. Many of our citizens are diagnosed with one or more chronic conditions by the time they reach the age where they become eligible for Medicare. We know from data from the Centers for Disease Control and Prevention that in 2014 that 68.4% of Medicare beneficiaries have 2 or more chronic conditions and that 36.4% have 4 or more chronic conditions.

It is also known that the cost of providing health care to a person with a chronic condition is more than the cost of providing health care for someone who does not have a chronic disease. Having multiple chronic conditions (poly chronic) drives health care costs up even higher. The health care industry today needs solutions that can help patients take more ownership of their health and to give them the skills that they need to better manage their chronic conditions in addition to the great care they receive from their primary care doctors, specialists, care coordinators and care managers.

Johnson & Johnson Health and Wellness Solution's Digital Health Coaching is a scalable, efficacious platform for patient behavior change. This platform is a cost effective approach for patients with chronic disease to develop the skills that they need to be more successful in managing their health.

DIGITAL HEALTH COACHING – What is it?

Our digital health coaching programs (available in web/tablet/mobile forms) are designed to emulate the experience an individual would have with a health coach or disease management counselor. A good coaching session begins with an in-depth consultation where the coach learns about you before making any suggestions or recommendations. A good coach gets to know you and asks questions about your personal health situation, your motivation to deal with health issues, your self-confidence about changing your health behaviors and what you perceive to be the barriers to your success. The coach then builds a personalized success plan by combining 1) what the coach has learned about you; 2) all the clinical training and experience the coach has; and 3) what behavior change models are most likely to get you to change to improve your health. The coach then would go over the plan to help you realize where you are on your journey to improve your health today, confirm where you want to be and then show you the plan on how you can get there. The coach checks in with you periodically, following up with you overtime to see if the plan has achieved the desired results.

Johnson & Johnson Health and Wellness Solution digital health coaching programs follow this exact framework.

Specifically, once the consultation has been completed by the participant, they are presented with a distinct set of skills to work on that are presented to them in a tailored (personalized) order. The skills that the participant could use help in mastering are presented based on the individual information that the system collected during the consultation process. Within these skills, tailored action steps are suggested to the participant to support skill mastery. Developing expertise in these health improvement skills will be the foundational elements for the participant's success in behavior change. A participant will have the ability to indicate which actions steps and skills have been put to use and their level of effectiveness for the individual. This allows our system to continue to learn about what works for a specific individual, as well as amplifying the "intelligence" of the tailoring engine. As skills are completed and additional data are gathered about the participant, through the use of trackers, for example, new skills that the participant could work on to improve their health will be revealed over time. This creates a longitudinal experience with fresh content for the participant.

There are over 40 different self-management skills our programs are designed to help the participant master and include items such as:

- Building Motivation
- Overcoming Barriers to Change
- Reshaping Negative Thoughts
- Creating Positive Habits

- Being Active
- Sleeping Well
- Being Mindful
- Building Routines
- Medication Adherence
- Accepting Your Condition
- Setting Goals and
- Eating Well

Johnson & Johnson Health and Wellness Solution is proposing a combination of the following chronic condition self-management digital coaching programs for use with FFS Medicare beneficiaries:

Chronic Condition Self-Management Programs

- Chronic Conditions: **HealthMedia® CARE® for Your Health** enables the education of the development of skills around chronic conditions.
- Back Pain: **HealthMedia® CARE® for Your Back** facilitates your understanding about back care and low back pain prevention.
- Diabetes: **HealthMedia® CARE® for Diabetes** facilitates your understanding of diabetes.
- Chronic Pain: **HealthMedia® CARE® for Pain** facilitates your understanding of mind body approaches to chronic pain.
- Blood Pressure: **HealthMedia® CARE™ for Blood Pressure** aims to help members reach blood pressure targets.
- Cholesterol: **HealthMedia® ACHIEVE™** aims to help members reach cholesterol targets.
- Depression: **HealthMedia® CARE™ for Depression** provides online exercises and tools to address a wide range of issues associated with depressive symptoms.

Major Studies

Our solutions have been validated by ground-breaking studies.



Chronic Illness Claims Study

Results:

- \$382 in annual medical claims based savings per person
- 20% reduction in hospital admissions

Source: Schwartz et al., (2010). The Impact of an Online Disease Management Program on Medical Costs Among Health Plan Members. American Journal of Health Promotion, 25(2), 126-133.



Blues Longitudinal Study

Results:

- 8 consecutive years of positive return on investment (ROI)
- ROI for each year ranged from a low of 1.16:1 to a high of 2.83:1
- Average ROI collapsed across all 8 years was 2.02:1

Source: Schwartz SM, Mason ST, Wang C, Pomana L, Hyde-Nolan ME, Carter EW. (2013). Sustained Economic Value of a Wellness and Disease Prevention Program: An 8-Year Longitudinal Evaluation. Population Health Management, 17(2), 90-99.



National Integrated Delivery Network Study

Results:

- Member/Consumer Satisfaction: A randomized control trial by a leading national health plan reported that participants in our programs had a 24% higher satisfaction rating with their health plan.

Source: Kendra Rothert, Victor J. Strecher (2006). Web-based Weight Management Programs in an Integrated Health Care Setting: A Randomized, Controlled Trial. OBESITY Vol. 14 No. 2, 266-272.



Wellness Study

Results:

- 33% lower rate of increase in medical costs for participants
- "Adding a Web-based program to an existing health promotion program can produce savings in medical care costs that occur in the first year and continue when the program is maintained."

Source: Laura C. Williams, PhD; Brian T. Day, EdD (2011). Medical Cost Savings for Web-Based Wellness Program Participants From Employers Engaged in Health Promotion Activities. American Journal of Health Promotion, Vol. 25, No. 4, 272-280.

*Results are from specific customers and do not reflect generally expected performance given the unique nature of each wellness program. Intervention included Wellness & Prevention Care for Your Health digital health coaching program in conjunction with other features such as telephonic counseling, reminders, and educational tools.

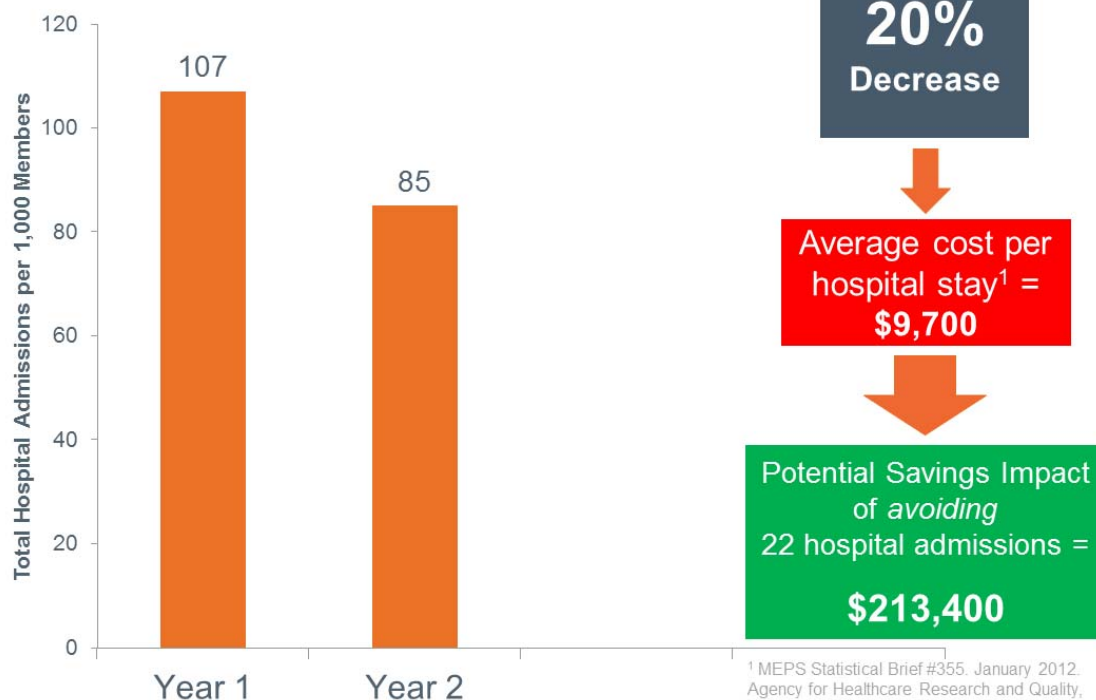
**Results are from specific customers and do not reflect generally expected performance given the unique nature of each wellness program. Measurements were obtained through a health risk analysis provided by Staywell from 2002-2003, and by HealthMedia from 2004-2005. Digital Health Coaching programs were available to study participants from 2004-2005.

DEMONSTRABLE OUTCOMES

As noted above, Johnson & Johnson Health and Wellness Solution digital coaching programs have gone through the rigor of numerous peer reviewed, published studies which have validated the effectiveness of our methodology of blending proven science-based behavior change models with our tailoring technology to deliver positive and sustained behavior change that leads to improvements across all three dimensions of the triple aim – reduced costs, improved health quality and patient satisfaction.

The first study noted above with a Blues Plan demonstrated an average year over year cost saving of \$382 in actual medical expenses for every program participant. This cost savings came primarily from hospital admission reductions. Even with the lower overall health care costs, these participants in the study showed improvement in a variety of health measures including weight loss, reduction in tobacco use and increases in screenings and immunizations such as annual flu vaccines.

Reduced Hospital Admissions*



*Figure adapted from: Schwartz, et al. (2010). The Impact of an Online Disease Management Program on Medical Costs Among Health Plan Members. *American Journal of Health Promotion*; 25(2): 126-133.

¹ MEPS Statistical Brief #355, January 2012. Agency for Healthcare Research and Quality, Rockville, MD.

The other three studies noted above speak to our program's ability to improve health outcomes across a broad range of health issues and improve the overall patient satisfaction. Copies of these specific studies as well our entire portfolio of peer reviewed published studies can be found at:

<http://www.wellnessandpreventioninc.com/insights/white-papers>

BEHAVIOR SCIENCE THEORY

Our digital coaching programs fundamental components of behavior science theory and application protocol incorporate cognitive-behavioral constructs that are derived largely from 7 leading theoretical models of health behavior change:

- Acceptance and Commitment Therapy (ACT)
- Trans-theoretical Model (Stages of Change)
- Cognitive Behavioral Therapy (CBT)
- Motivational Interviewing
- Self-Determination Theory
- Solution-Focused Therapy
- Willpower Training

Acceptance and Commitment Theory (ACT) is a clinical approach to helping people cope with negative thoughts and feelings. The central idea in ACT is that people exist "in context." Our thoughts and feelings are affected by the events we experience, the people we meet, and the environment we live in. An example of context is getting a diagnosis of a chronic condition, which leads to negative feelings. The feelings don't just arise out of nowhere. They happen because of a situation we encounter.

Another concept in ACT is that our core values – the things that we prize the most – drive our actions. So, a person who values responsibility will make choices reflecting that, and those choices might be different from someone who values creativity. ACT teaches that we should recognize negative thoughts and feelings, accept them, and then let them go. In other words, we shouldn't dwell on things we can't control. Instead, we should focus on making choices that are in line with our values.

Trans-theoretical model uses a stage-matched intervention based on individual "readiness to change" (Prochaska, DiClemente), has demonstrated that you can help people change their behavior by appropriately targeting interventions that match their readiness to make lifestyle behavior changes. TTM has identified key behavioral processes that help a person to successfully make these passages through each stage. The model is called "transtheoretical" because it encompasses many theories of behavior change into its framework.

Cognitive behavioral therapy is about learning to recognize negative thinking patterns and replace them with more adaptive ones; this in turn helps people behave in more goal-consistent ways and reduces emotional distress. This technique addresses the connection between a person's thoughts (cognitions), behaviors, and emotional experiences. Our thoughts and attitudes are a real part of the environment that we react to, and may affect both our emotions and our behaviors. Being able to recognize maladaptive thoughts, and the harmful ways in which they affect feelings and actions, can help improve a person's functioning. Changing thoughts and attitudes can be an important part of changing one's behavior. In our digital health coaching programs, we try to teach people how to challenge their thoughts.

Motivational Interviewing is a practical approach to helping people recognize and then take action on a problem. The goal is to increase people's intrinsic motivation by empowering them and acknowledging their right to choose their behaviors. But with this sense of control and choice comes a personal accountability for one's actions and behaviors. Motivational interviewing has its origins in clinical therapy settings and manifests as non-judgmental "change talk" that increases motivation to change over time.

According to **Self-Determination Theory**, users are most motivated when their senses of autonomy, competence, and relatedness are supported through an experience. SDT recognizes that motivation can lie along a continuum spanning from controlled types of motivation (amotivated, external, introjected) to autonomous types of motivation (identified, integrated, intrinsic). More autonomous motivation types tend to be more sustainable over time, so one goal of our interventions is to help people move from controlled to autonomous motivation.

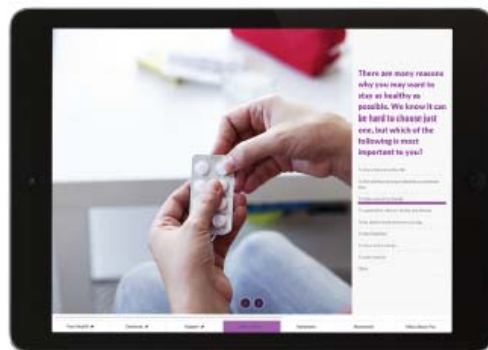
Solution-focused Therapy (DeShazer, O'Hanlon) emphasizes a style of communication between health care providers and their patient that fosters a sense of collaboration. This approach attempts to reframe perceptions

by moving the person from "problem" orientation to a "solution" focused discussion. Solution-focused therapy helps create a sense of opportunity and move one through steps to solving a problem.

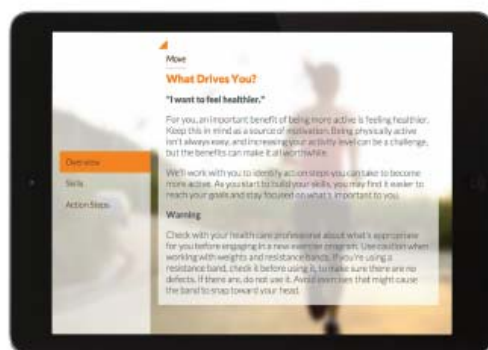
Willpower refers to self-control, or the ability to resist temptation in the present, usually in service of a longer-term goal. Willpower has become a loaded phrase that has been used to imply that people have a moral or character issue if they lack it. However, research on the subject has indicated that willpower is a renewable resource that all people have in some quantity, and that can be nurtured and directed through a variety of behaviors. On the flip side, willpower is not infinite. If it is tested through difficult situations without an opportunity for a person to replenish it, a person might not have sufficient willpower remaining to resist new temptations. In our programs, we help people train their willpower.



Scientifically Based
Created by behavioral scientists, health professionals, and expert content tailoring team, our programs are built upon a foundation of tailored guidance and skills to develop with associated action steps. This skills-based approach can help people dealing with multiple challenges (diabetes, depression, sleep problems, and more).



Individually Tailored
We recommend concrete, tailored, action steps based on user-identified health and wellness goals. The personalized experience is designed to help increase success by tapping into 'core values' identified by the user. Skills and action steps also easily map to real-world activities to help drive successful behavior change.



A Compelling Experience For Participants
Our programs are designed to provide an engaging and interactive user experience—holistically connecting users' health and behavior with their core values, purpose, and goals. Tailored coaching content is delivered in small pieces to help create a quick yet effective interaction.

We also offer other programs that may be of interest for this population.

Optional Wellness Programs

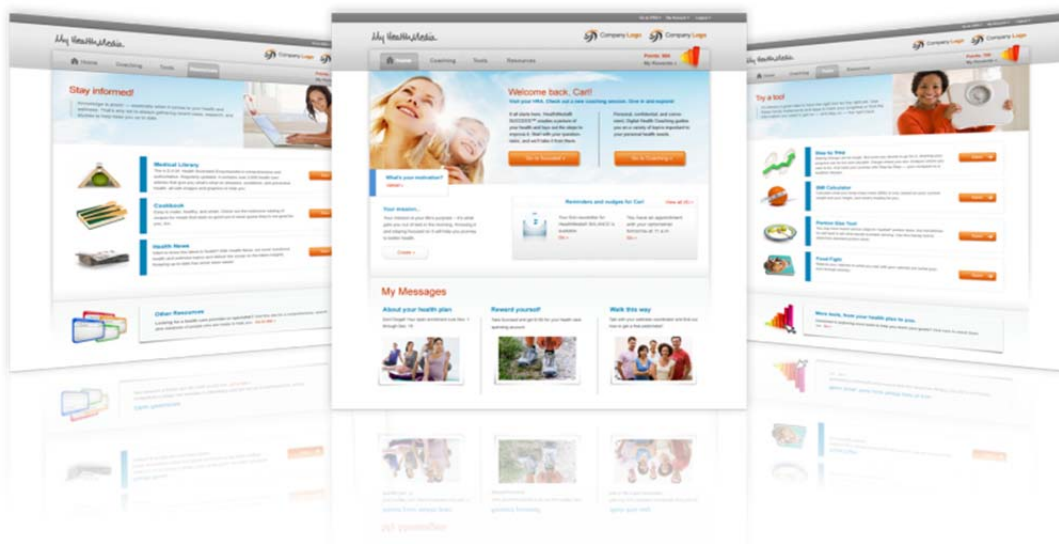
- Weight Management: **HealthMedia® BALANCE®** helps individuals achieve and maintain a healthy weight.
- Smoking Cessation: **HealthMedia® BREATHE®** enables successful smoking cessation.
- Stress Management: **HealthMedia® RELAX®** designed to teach participants simple, stress-coping skills that help reduce stress levels with exercises, activities, tools, and resources.
- Healthy Eating: **HealthMedia® NOURISH®** simplifies the complex task of making healthy eating decisions.
- Physical Activity: **HealthMedia® MOVE®** helps members identify barriers and re-shape thoughts around physical activity.
- Insomnia: **HealthMedia® CARE™ for Sleep** provides online exercises and tools to address a wide range of issues associated with insomnia in a six week interactive program.
- Binge Eating: **HealthMedia® Binge Eating™** helps members identify and manage triggers for binge eating and compulsive eating.

ENGAGING THE BENEFICIARY

We envision that promotion of these programs to the beneficiary would leverage existing beneficiary communications. We have a variety of marketing campaign templates that are included in our program offering. Every campaign includes a Strategic Communication Guide to share the objectives and insights behind the marketing templates. The marketing templates are created so that branding (logos and URLs) can also be easily inserted.

WELLNESS PORTAL

Our chronic illness self-management programs will also include our Wellness Portal which will provide each participant with access to a variety of other digital health improvement programs to help the beneficiary achieve their health goals.



The portal includes access to personalized solutions including the following components:

- Personal, customizable home page for each participant, including ability to personalize with motivational picture and their personal mission statement
- My Reminders: personalized messages accessible via the portal ranging from preventive screening reminders to notifications of upcoming or on-site activities
- Digital resources including a Health Encyclopedia, Interactive Cookbook, Goal Setting and Tracking tools, BMI Calculator, Portion Size and Food Substitution Tools

POSITIVE HEALTH IMPROVEMENT – FEEDBACK DIRECT FROM THE PARTICIPANT

In addition to the peer reviewed publications that demonstrate the effectiveness of our digital coaching solutions, we seek direct feedback from every program participant. We do this by “checking in” with them on a quarterly basis to see how they are doing on their journey to improve their health. The following data shows their direct feedback which was collected at 6 months post-program completion with our chronic illness self-management programs that are included in this document as well as the optional wellness programs noted:

BOOK OF BUSINESS OUTCOMES

We have been supporting health plans for more than a decade. Following are the outcomes we've helped them achieve.

WEIGHT

- **63%** of participants reported weight loss
- **26%** of participants with a reported BMI of 30+ reported losing at least 5% of their body weight
- **47%** of participants reduced their BMI by at least 1 point (based on self-reported height and weight)
- **\$1,089** projected productivity savings per participant per year

DIABETES

- Reported A1C levels dropped from **7.04 to 6.73**
- **79%** of participants reported improved medication-taking habits
- **89%** of participants said they were able to better manage their diabetes

CHRONIC CONDITIONS

- **92%** of participants said their health improved
- **93%** of participants reported they are communicating better with their doctor

SLEEP

- **25-minute** reported increase in average nightly sleep time
- **31%** average reduction in reported fatigue level
- **38%** average decrease in difficulty falling asleep ratings
- **\$1,457** projected productivity savings per participant per year

STRESS

- **67%** of participants reported reduced stress
- **68%** of participants reported improvement in their ability to manage stress when it hits
- **\$830** projected productivity savings per participant per year

PHYSICAL ACTIVITY

- **86%** of participants reported an increase in physical activity
- **60%** of participants reported feeling healthier
- **\$3,582** projected productivity savings per participant per year

SMOKING

- **46%** of participants reported they quit smoking
- **\$1,934** projected productivity savings per participant per year

BACK PAIN

- **90 Day Outcomes**
- **94%** of participants reported an improvement in their ability to prevent back pain
- **83%** of participants reported an improvement in their ability to manage back pain
- **\$1,922** projected productivity savings per participant per year

NUTRITION

- **69%** of participants reported improved nutrition habits
- **\$1,004** projected productivity savings per participant per year

BLOOD PRESSURE

- **82%** of participants reported increased ability to manage blood pressure
- **73%** of participants reported better communication with their doctor

PAIN

- **31%** reported reduction in average pain intensity ratings
- **30%** reported reduction in average pain unpleasantness ratings
- **\$2,515** projected productivity savings per participant per year

BINGE EATING

- **10%** reported decrease in number of episodes of overeating
- **15%** reported decrease in number of episodes of lost sense-of-control while eating
- **\$340** projected productivity savings per participant per year

DEPRESSION

- **38%** decrease in average CES-D scores from **4.79 to 2.93**
- **32%** decrease in average reported number of annual physician visits
- **\$1,830** projected productivity savings per participant per year

CHOLESTEROL

- **76%** of participants reported increased ability to manage cholesterol
- **68%** of participants reported communicating better with their doctor
- **\$458** projected productivity savings per participant per year

Participant self-reported results at 6 months. Participant self-reported results at 3 months for Physical Activity, Chronic Conditions Management, Back Pain Management & Prevention, and Binge Eating Control.

Productivity savings data was calculated using the Work Productivity Activity Impairment (WPAI) questionnaire, which employs a validated algorithm to generate an estimate of productivity impairment. The WPAI consists of questions about absence from work, hours actually worked, the reduction in productivity at work, and the reduction in productivity while performing regular activities. Productivity savings is calculated using an average annual salary and benefits package of \$60,000.

ENGAGING THE BENEFICIARY

We envision that promotion of these programs to the beneficiary would leverage existing beneficiary communications. We have a variety of marketing campaign templates that are included in our program offering. Every campaign includes a Strategic Communication Guide to share the objectives and insights behind the marketing templates. The marketing templates are created so that branding (logos and URLs) can also be easily inserted.

WELLNESS PORTAL

Our chronic illness self-management programs will also include our Wellness Portal which will provide each participant with access to a variety of other digital health improvement programs to help the beneficiary achieve their health goals.



The portal includes access to personalized solutions including the following components:

- Personal, customizable home page for each participant, including ability to personalize with motivational picture and their personal mission statement
- My Reminders: personalized messages accessible via the portal ranging from preventive screening reminders to notifications of upcoming or on-site activities
- Digital resources including a Health Encyclopedia, Interactive Cookbook, Goal Setting and Tracking tools, BMI Calculator, Portion Size and Food Substitution Tools

TECHNOLOGY AND PRIVACY

Technology

Our digital coaching platform is licensed to payers, just like you, in Software as a Service (SaaS) model. The platform is designed to support large populations exactly like Medicare's Fee For Service population. The platform is designed for scale with redundant and multi-tiered web servers, database servers, and other infrastructure components can be expanded as needed to meet our customer's demands.

Web Availability: For the calendar year 2014, the annual uptime percentage was over 99.9% and response times averaged below 2 seconds.

Confidentiality & HIPAA Requirements

Johnson & Johnson Wellness and Solution products are HIPAA compliant. Security of our production facilities is under the guidance of HIPAA, PCI standards and must comply with Johnson & Johnson Security standards (IAPPs).

We ensure compliance with existing regulatory requirements through the consistent utilization of the elements of our Privacy Program. Our privacy policy assures participants that we will not divulge their personally identifiable data to any third party without the participant's explicit permission or as required by law. And, we will not contact the participant for any non-product related marketing.

Our staff receives HIPAA (Health Information Portability Accountability Act) training to raise awareness of security and privacy issues.

We enforce our privacy policy – both through various physical and electronic security safeguards, and through internal procedures covering data handling and usage. All web access to our digital coaching products by participants is handled via secure connections using SSL (Secure Socket Layer), and all administrative access to the web servers and database are done via SSH (Secure Shell). Our product sites use verification and SSL certificates provided by VeriSign.