

# Web-based health promotion

In this discussion, **Dr Royer Cook**, President of the ISA Group, explains how an internet-based intervention programme is helping to promote better health practices in workers aged 50 and over



**As a starting point, can you tell us what led to the ISA Group's formation and what its core tenets are?**

I founded the ISA Group over 30 years ago as a private, independent research firm designed to develop innovative approaches to health and social issues. We are similar to a university-based research centre, but with an applied, entrepreneurial bent. The ISA Group comprises two affiliated organisations: ISA Associates, Incorporated, a health R&D company that develops and tests technology-based health solutions, funded mainly by the National Institutes of Health (NIH); and the Center for

Workforce Health, LLC, which functions mainly as a vehicle for disseminating and marketing ISA products.

**Your most recent research has focused on internet-based interventions. Does this format hold particular advantages over other ways of delivering benefits?**

Over a decade ago, we saw the internet as the system of the future for delivering disease prevention and management interventions, freeing the delivery of interventions from time and place constraints of in-person programmes. With the continuing advances in connection speed and capacity, we can build engaging, powerful programs that are media-rich, highly interactive and tailored to individual needs. Although our programs are designed to be effective as standalone interventions, they can also serve as excellent supplements to in-person coaching services.

**Which factors affect healthy ageing? How are these factors incorporated into a single program – HealthyPast50?**

Because the most important practices of healthy ageing are those associated with diet, physical activity, stress, mental health and tobacco use, major segments of HealthyPast50 deliver state-of-the-art information and guidance on these areas.

Along with tonnes of information on these important topics, a distinctive feature of HealthyPast50 is that it focuses on the latest behavioural strategies that optimise the chances of embracing healthful practices – and sticking with them. Indeed, HealthyPast50 goes 'beyond information' to provide the user with the skills and motivation that are essential to making lasting improvements in one's health.

**Is the program tailored to different web user abilities? Would the modules be presented in a different way if targeted at a younger audience?**

It is designed to be user friendly for any adult age group, though not necessarily for the elderly (80+). Much of the content would be applicable to a younger audience, since many of the factors in healthy aging – eating a nutritious diet, managing stress, etc. – are important at any age. The major difference is that the motivational segments and messages of HealthyPast50 are highly specific to this age group. For example, the module 'Facts About Healthy Aging' weaves basic facts about the ageing process with segments designed to persuade users that 'the time is *now*' – that is, midlife – to embrace healthy practices that will provide them with a healthy, satisfying life in their later years.



# Tricks of the trade

Are you able to describe the findings from your randomised trial of the program at EMC? Will there be further tests?

Two groups were surveyed on key health outcomes at two points – a pre-test before the three-month test period and a post-test immediately after the test period. Central results showed that employees given access to the HealthyPast50 program performed significantly better on key measures of activity level and dietary practices. Although data analysis continues, these findings indicate that an internet-based program like HealthyPast50 can make a significant contribution to the health practices of older adults.

Who are your main collaborators in the project and what functions do they perform?

Dr Rebekah Hersch, a health psychologist and Senior Vice-President of the ISA Group, served as Project Director of HealthyPast50, directing the program development and the randomised trial. Dana Schlossberg, MPH, served as Research Associate on the project, creating program content and overseeing data collection. Dr Susan Hughes, a gerontologist at the University of Illinois, reviewed program content at different stages of the project. And the Redmon Group, a media firm specialising in interactive internet technology, was responsible for the technical construction of the web-based HealthyPast50.

Has the support from the National Institute on Aging (NIA) been key to the development of the project?

The project was funded through a generous grant from the NIA, an agency of the NIH. The grant supported both the full development of the web-based HealthyPast50 programme, as well as the randomised trial. Neither would have been possible without NIA support.

The **ISA Group**, a behavioural health research organisation specialising in innovative approaches to disease prevention, has developed a comprehensive web-based program to improve the health of older workers

**FOR MORE THAN** two decades, the ISA Group has specialised in the application of behavioural science. It has conducted many R&D projects, with the overall aim of improving public health and safety. These innovations have been developed by a team of behavioural health specialists, and range from video-based approaches to web- and computer-based programs.

The team's research has shown that web-based programs are especially effective when trying to implement or improve health practices. Therefore, for one of ISA's newest projects, the researchers chose to develop a new web-based approach – HealthyPast50 – a media-laden interactive experience designed to improve the health of workers 50 years of age and older.

## HARD WORK

Led by Dr Royer Cook, a health psychologist and President of the ISA Group, the researchers decided to target people in this age range because of their higher susceptibility to chronic disease and disability. With such a vast array of possible foci, the project is tailored specifically to the health behaviours that are implicated in major diseases. This includes physical activity, nutrition, weight management, stress and mood management, and alcohol and tobacco use.

"We've chosen to focus on worker health because most Americans receive both health insurance and wellness programmes through their employer," Cook explains. "We're targeting

people in their 50s and 60s because, compared to younger workers, their health practices at this crucial juncture have an especially strong impact on the extent to which they will have a healthy and satisfying life in their later years." He hopes that by improving health practices in mid to late middle age, the HealthyPast50 programme will help to abate morbidity in later life, as well as enhance the quality of life for people reaching their 60s, 70s and beyond.

## HEALTHYPAST50

During its initial 18 months, the project focused on the construction and content for HealthyPast50. The research team used this time to carry out the necessary focus groups and pilot tests – only then could the program be fully developed. Now fully functional and operational, the HealthyPast50 program comprises the following modules:

- **Facts About Healthy Aging** details information about the importance of starting or continuing healthy lifestyle practices in midlife. It also includes expert advice on the impact of health choices made between the ages of 50 and 60, as well as debunking common myths about ageing
- **My Health Profile** comprises a range of assessments on a variety of health topics. Though brief, these assessments are developed to help users identify healthy behaviours, as well as those that adversely affect physical or mental health. Based on their responses, users are given feedback suggesting other parts of the program that they should explore. Users are also recommended to redo the assessments every two to three months in order to track their progress
- **Stress and Mood Management** tackles a huge issue: the ability to manage stress, which is vital to maintaining overall health and wellbeing. With age, coping with stress becomes very important, with chronic stress believed to quicken the ageing process.



## INTELLIGENCE

WEB-BASED HEALTH PROMOTION FOR OLDER WORKERS

### OBJECTIVES

To develop and test a comprehensive, interactive and innovative web-based program designed to improve the health of workers 50 years of age and older. The web-based HealthyPast50 is designed to improve health behaviours known to be implicated in major diseases, including physical activity, nutrition/weight management, stress and mood management, alcohol use and tobacco use.

### KEY COLLABORATORS

**Dr Rebekah Hersch**, senior vice-President, ISA Group and Project Director, HealthyPast50

**Dana Schlossberg, MPH**, Research Associate, ISA Group

**Redmon Group**, a media firm specialising in interactive internet technology

### FUNDING

National Institutes of Health (NIH)/ National Institute on Aging (NIA) grant #4R44AG033964

### CONTACT

**Royer Cook, PhD**  
Director, Center for Workforce Health  
President, ISA Group

201 North Union Street  
Suite 330  
Alexandria, Virginia 22314  
USA

T +1 703 739 0880 x12  
E rcook@isagroup.com

[www.isagroup.com](http://www.isagroup.com)

[www.centerforworkforcehealth.com](http://www.centerforworkforcehealth.com)

**DR ROYER COOK** is a health psychologist and the founding President of the ISA Group, a behavioural health research organisation specialising in innovative approaches to disease prevention. Since founding the ISA Group in 1978, he has directed a programme of R&D on health improvement initiatives, focusing most recently on internet-based interventions.

This module features an array of effective techniques, many of which are interactive and downloadable

- **Healthy Eating** imparts users with the necessary tools and skills required to make sustainable, healthful changes to their eating routines, as well as make age-appropriate changes to their nutritional intake, and help manage weight.
- **Active Lifestyle's** core tenet is that living an active lifestyle is critical to a healthy and rewarding life; it is not only important for longevity, but also for enjoying one's later years. This module is designed to impart the information, skills and motivation to start or continue being physically active
- **Tobacco Free** was developed because the cessation of smoking is perhaps the biggest change a person can make to prevent premature disability or death. It is designed to empower users to make 'the decision', providing innovative strategies to keep off tobacco

### TESTING THE TECHNIQUE

In terms of challenges, the first section of the project devoted to constructing the program raised issues. The main obstacle was ensuring that the content and functionality, even its aesthetics, would attract and be suited to older workers, particularly as working adults in their 50s and 60s do not necessarily feel particularly old: "We had to strike the 'sweet spot' between the youthful and the elderly," explains Cook. The team believes it has managed to do this with the assistance of an experienced gerontologist and by undertaking numerous focus groups and usability tests with 50-plus workers at EMC.

Over the past 12 months, HealthyPast50 has been tested in a randomised trial at EMC – a global information technology company with more than 60,000 employees. 268 of these employees aged 50 years or older were randomised into two groups: an experimental group that was given access to the HealthyPast50 program for three months and a control group. The two groups were assessed on predetermined health issues – stress, activity levels, dietary practices, etc.

Encouragingly, the trial's findings have been very positive, Cook reveals: "The main results



HEALTHYPAST50 WEBSITE

of extensive data analysis showed that employees given access to the HealthyPast50 program performed significantly better on key measures of activity level and dietary practices. Although data analysis continues, these findings indicate that an internet-based program like HealthyPast50 can make a significant contribution to the health practices of older adults". Further results are expected throughout 2013.

### A SPECIAL APPROACH

Describing what makes HealthyPast50 such an effective program, Cook reveals: "There are two characteristics of HealthyPast50, as well as our other web-based programs, that are especially important and which I believe should be fundamental to any web-based health promotion program: first, in addition to being media-rich and highly interactive, all of our interventions are rooted in accepted principles of health behaviour change theory, the basis for the many behavioural strategies contained in them; second, all are rigorously tested in randomised trials, so they all carry empirical evidence of improvement on desired health outcomes". Indeed, HealthyPast50 builds on ISA's past successes – there are numerous innovative interventions implemented by ISA researchers that preceded and informed this newest approach.

### THE FUTURE OF HEALTH INTERVENTIONS?

The ISA researchers have created over a dozen different internet-based interventions which focus on a range of health topics – from cardiovascular risk reduction to medication adherence. HealthyPast50 integrates and augments the content and functionality from two of ISA's most successful projects – Health Connection and Stress and Mood Management – though geared toward older adults.

Currently, the researchers are focusing their attention on several other projects, all of which are grounded in the development and testing of novel web-based health improvement interventions. Selected features of these interventions are expected to be available through smartphones, and will address such issues as sleep hygiene, stress management for nurses and caregiver support.

