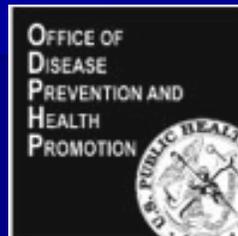


Improving Health Web sites for Limited Literacy Users: Benefits of Iterative Design

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Presentation Preview

- Background: healthfinder prevention information prototype
- Iterative design: Key findings
- Evaluation challenges: Recruiting participants with limited literacy



The 5 Most Important Things You Can Do To Stay Healthy



[Eat Healthy](#)

Small changes in your eating habits can make a big difference in your life.



[Get Active](#)

Simple strategies to keep you moving.



[Watch Your Weight](#)

If you are not getting active every day, you are at risk for becoming overweight. To lose weight, you need to eat fewer calories than you burn.



[Quit Smoking](#)

Quitting smoking is one of the most important things you will ever do. Smoking is the most preventable cause of death and disease in the United States.



[Get Screened](#)

Get important screening tests for health conditions such as heart disease and cancer.

Other Ways To Stay Healthy

my healthfinder

Find healthy recommendations for you or someone you care about.

Who are you trying to help today?

- Me
- Someone Else

Age:

- Sex:
- Female
 - Male

Goals: healthfinder Prototype

- Build a working prototype from the 'ground-up' based on existing usability, health communication, and health behavior research plus new consumer research
- Design evidence based prevention content appropriate for limited literacy audiences that is engaging, motivating, and increases self efficacy
- Develop evidence-based guidance for organizing and presenting Web based prevention content appropriate for limited literacy audiences



Rationale

- Current online health information landscape creates more stress than support.
- People cannot find the information they seek on Web sites about 60% of the time.
- Much of the health content on the Internet is focused on disease diagnosis and treatment (rather than prevention).



Challenges

- Adults with limited health literacy skills:
 - Are not accustomed to using the Internet as a health resource
 - Prefer mass media or interpersonal sources of health information
 - Are typically unable to handle many of the multiple and complex tasks in e-health tools
 - Have difficulty reading and understanding most online health content

Evidence Base

- Existing research-based recommendations from HHS
- Leading theories of health behavior change and health communication
- Original research conducted using an iterative design process with more than 500 participants ages 18-84

Methods

- Descriptive Analysis
- Expert Panel Review
- Structured Interviews
- Mental Models Research
- Card Sort Study
- Prototype Evaluation
(Web-based and in person)
- Usability Studies



Iterative Design

- You do not have to have a finished product to start testing!
- The only way to develop an eHealth tool that is usable, easy to understand, and engaging is to involve the target audience early and often.

Card Sort—Key Findings

- Prioritized list of most useful content types by topic & audience segment
- Key Themes:
 - Get my attention quickly
 - Give me the facts
 - Are there any community resources
- How to frame prevention?

Prototype Evaluation Findings: Audience Segments

Users shift frequently between segments.

"I want information about a topic."



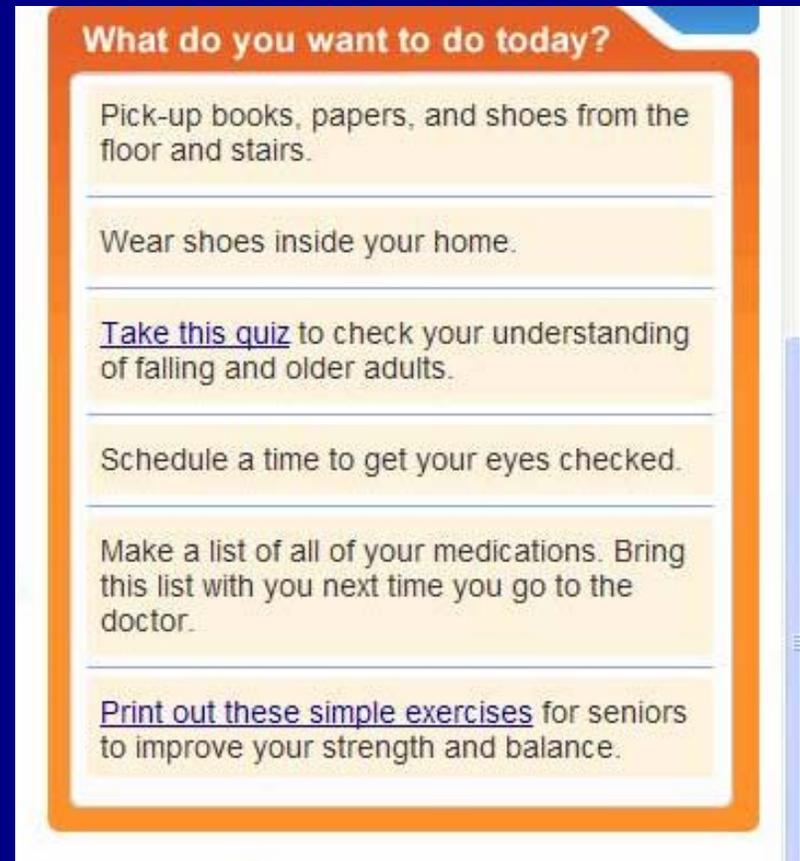
"Should I be concerned?"



"What can I do?"

Prototype Evaluation Findings: Small Steps Approach

- Include simple actions that users can do right away.
- This reinforces behavior and improves self-efficacy.



Usability Test 1 Findings: Basics, Benefits, Action



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Eat Healthy

The Basics

The Benefits

Get Started!

The Basics

Your body needs the right vitamins, minerals, and other nutrients to stay healthy.

The Benefits

If you eat a healthy diet and exercise, you can keep your body strong and fit.

Get Started!

Making small changes in your eating habits can make a big difference in your life. Here are some tips and tools to get you started.



Eating healthy can protect you from [Heart Disease](#), [Obesity](#), [Cancer](#) and [Diabetes](#).

What do you want to do today?

Drink water instead of soda or juice.

Print out this [Food Diary](#) to keep track of what you eat.

Make a shopping list with healthy snacks like fruit and low-fat yogurt.

Pick a new recipe from this list of [heart-healthy recipes](#).

If you are trying to help someone Eat Healthy... [Get tips to help](#)

Usability Test 1 Findings: my healthfinder

my healthfinder

Find healthy recommendations for you or someone you care about.

Who are you trying to help today?

- Me
 Someone Else

Age:

- Sex: Female
 Male

[Get Started](#)

Stay Healthy at Any Age

You said you're a woman aged 42.

Get Enough Calcium

Women need calcium each day to protect their bones. You can get calcium from foods such as yogurt or cheese from supplements such as calcium pills. >

Get Your Blood Pressure Checked

Most Americans older than 40 need to be concerned about high blood pressure. >

Get Your Cholesterol Checked

Too much cholesterol in your blood can cause heart disease or a heart attack. The good news is that cholesterol can be easily checked and controlled. >

Get Tested for Breast Cancer

A mammogram could save your life! If you are older than 40, get a mammogram every 1 to 2 years. >

Usability Test 2 Findings: Topics A-Z



Topics A-Z

Prevention Main --> Topics A-Z --> Breast
Cancer --> Get Tested for Breast Cancer

Usability Test 2 Findings: Writing Style

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The Basics **The Benefits** Get Started!

The Benefits

A healthy diet can help protect you from heart disease, bone loss, colorectal cancer, and diabetes. If you eat a healthy diet and exercise, you can keep your body strong and fit. It feels good to know you are taking control and making healthy choices that will change your life.

What if I am Overweight?
If you eat unhealthy food and don't exercise, you can become overweight or obese. That means you have too much body fat. Finding your body mass index (BMI) is the best way to find out if you are on your way to becoming obese. [Use this BMI calculator](#) to learn your personal BMI number and what it means for you.

If you are overweight or obese, you are at higher risk for diabetes, high blood pressure, heart disease, and disability. Losing **just 10 pounds** can help you lower your risk of developing these diseases.

Eating healthy and [getting active](#) can protect you from [heart disease](#), [overweight and obesity](#), and [colorectal cancer](#).

What do you want to do today?

Drink water instead of soda or juice.

[Print out this food diary](#) to keep track of what you eat.

Make a shopping list with healthy snacks like fruit and low-fat yogurt.

[Pick a new recipe](#) from this list of heart-healthy recipes.

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The Basics **The Benefits** Get Started!

The Basics

Am I Eating a Healthy Diet?
Your body needs the right vitamins, minerals, and other nutrients to stay healthy. A healthy diet means that you are eating:

- Lots of fruits, vegetables, whole grains, and low-fat milk products
- Fish, poultry, lean meats, eggs, beans, and nuts

Stay away from:

- Cholesterol, sodium (salt), and added sugars
- Trans fats – trans fats are in foods like margarines, cookies, donuts, and other fried foods
- Saturated fats – these fats come from animal products like butter, cream, and fatty meats

There are tools on the Internet that can help you find out if you are eating a healthy diet. [MyPyramid Tracker](#) can tell you if you are eating the right kinds of food and the right amount of food.

Eating healthy and [getting active](#) can protect you from [heart disease](#), [overweight and obesity](#), and [colorectal cancer](#).

What do you want to do today?

Drink water instead of soda or juice.

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Make a shopping list with healthy snacks like fruit and low-fat yogurt.

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Research Challenges

- Recruiting participants with limited health literacy
- Recruiting participants with limited health literacy for Web based studies
- Study design: Getting away from traditional usability testing
- Time and resources

Iterative Design: Next Steps

- **Mobile phone application** on healthy recipes
- **Focus Groups** to inform prevention subtopics
- **Test prototype as a prevention toolkit within healthfinder.gov** for an early 2008 launch
- **Build partnerships** to incorporate healthfinder.gov into contexts where people 'are'
 - Evaluation set aside project with Baltimore Medical System
 - Community Organization Partnership

User Feedback

"It actually tells you what to do!"

"It's easy for everyday people like me to read. No big words or medical terms."

"I like this Web site because it gives you the information you want right away. It gives the basics, not too much to read."

" This [Web site] makes me want to sit down and get busy today. "