Usability Testing of a Cancer Control Website: *What You See Isn’t Always What You Get*

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CDC Cancer Control Enhancement Projects

- **Massachusetts Cancer Central**
- GIS/special populations: Geographical assessment of breast, colorectal, and prostate cancer
- Treatment studies
Our Goal...

To develop ways the MDPH Cancer Control website can be a better resource to the public and health care professionals for improving cancer treatment, care for underserved populations, cancer control planning, and personal decision-making.
Massachusetts Cancer Central: Structure and Content

- Cancers addressed
- Target audiences
- Structure
- Types of information provided
  - Statistics
  - Cancer Information
  - Links
Cancer Sites

- Breast
- Bronchus and Lung
- Cervical
- Colon and Rectum
- Leukemia
- Melanoma/Skin

- NH Lymphoma
- Oral Cavity & Pharynx
- Ovarian
- Prostate
- Testicular
- Urinary Bladder
- Uterine
Usability Testing

Usability is a measure of a website’s effectiveness in delivering information to its specified audience.
Methods for Usability Testing

A. Audience Identification

- Boards of Health (1 tester)
- Consumers (3 testers)
- Cancer Survivors (3 testers)
What is melanoma?

What cancer screenings should I get?

Have more women in my town developed breast cancer than in other towns across the state?

If you want to know the answers to questions like these, WE NEED YOUR HELP.

The Massachusetts Department of Public Health is developing a new cancer information website, We are looking for adult volunteers who can help us determine whether the site is suitable for the general public.

Help us help you by calling:

617-624-5449.

The review will take place at MIT (Massachusetts Institute of Technology) in September.
Methods for Usability Testing

B. Questionnaire

- Pre-Test Questions
  
  Examples:
  
  1. What is your gender?
  2. Please check the highest level of education you have completed.
  3. In your opinion, how much do you know about cancer?
Methods for Usability Testing

B. Questionnaire

- Usability Testing

Examples:

1. **Consumers**: Find a report on an environmental cancer study in Woburn, MA.
2. **Survivors**: Find a link to information for cancer survivors.
3. **Boards of Health**: How many new cases of cancer are diagnosed in your town or city?
Methods for Usability Testing

B. Questionnaire

• Post-Test Questions

Examples:

1. How would you rate this site overall?
2. How can we make this site easier to use?
3. What three things did you like best about this site?
MIT Usability Testing Lab

- Testing Room
  - Computer and monitor
  - Video camera
  - Microphone

- Observation Room
  - TV monitor
  - Speaker
Usability Test

- Individual testing; one hour
- Read and execute tasks
- Talk out loud
- Observers focus on mouse and use on the website
- Observers time the amount of time for user to find answer; >3 minutes raises flag for ease of use
Results

A. Navigation and Design

• Menus

Problem: Left-side DPH menu and right-side cancer web menu contained same link names.

Suggestion: Redesign so that cancer web menu appears on the left in place of DPH menu.
Welcome to Massachusetts Cancer Central

Goal

The goal of Massachusetts Cancer Central is to provide members of the public and health professionals with information about the most common forms of cancer. Here you can find statistics and information you need to reduce your risk of developing or dying from cancer. You can also find information on cancer in your community and on programs where you can obtain cancer screening.

Structure

Massachusetts Cancer Central is arranged so that you can obtain the information you need from several approaches: by type of cancer, by age, and by geography (national, statewide, and city/town level when available). You can also obtain information on Massachusetts cancer control programs and statistics directly by clicking on one of the buttons on the right.
A. Navigation and Design

- **Home Page**
  
  **Problem:** Participants couldn’t find their way home.

  **Suggestion:** Make sure the Home Page is the first link on every menu, on every page.
Results

B. Language and Literacy

- **Pie Graph**
  
  **Problem:** For Pie Graph, the words “Geography” and “Age” were too abstract, and didn’t clue people to what information could be found in those links.

  **Suggestion:** Change wording, e.g.
  
  Geography ➔ State, City and Town
  Age ➔ Cancer by Age Group.
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B. Language and Literacy

- Women’s Health Network
  
  **Problem:** When people were looking for low-cost mammography screening options, it took several layers before they looked in Women’s Health Network.

  **Suggestion:** Include a menu item called Free Screenings, or Government Screening Resources, or Financial Resources.
Results

B. Language and Literacy

- BEHA

Problem: People loved the fact that there was an environmental link. However, they consistently avoided the link entitled “Bureau of Environmental Health Assessment.”

Suggestion: Entitle the link “Environment and Cancer.”
Additional Cancer Statistics

You can find statistics for specific cancers at Cancer Information by Type of Cancer.

Massachusetts Community Health Information Profile (MassCHIP) provides free online access to health and social indicators for cities and towns in Massachusetts. Information is helpful in health planning for specific communities. Information includes the percent of current smokers in a city or town. You can create Custom Reports with MassCHIP, or you can obtain information about a specific topic through Instant Topics.

Return to Index

Statistical Publications Related to Cancer

Behavioral Risk Factor Surveillance System (BRFSS) Reports
The BRFSS collects self-reported prevalence data on health characteristics and behaviors, including cancer-related risk factors (such as nutrition, physical inactivity, alcohol, and tobacco) as well as use of screening services for breast, cervical, prostate, and colorectal cancers.

Bureau of Environmental Health Assessment (BEHA) Community Reports and Investigations
The BEHA responds to environmental health concerns and provides environmental health education to communities and health professionals. Many of BEHA's projects focus on cancer and the environment.

Massachusetts Cancer Registry (MCR) Reports
The MCR collects information concerning new cases of cancer diagnosed in Commonwealth residents. Information comes from several sources: acute care hospitals within the state, physicians, pathology laboratories, and radiation therapy facilities. The MCR also works with 15 other state cancer registries to obtain information on Massachusetts residents who are diagnosed or treated for cancer in these states.

Massachusetts Death Data
The Registry of Vital Records and Statistics collects and processes information on vital events, including cancer deaths.

Return to Index

Other Cancer Publications
Massachusetts Cancer Central
Cancer Central Home | Cancer Information by Type of Cancer | Cancer Information by Age | Cancer Information by Geography

Cancer Information by Geography

Here you can find cancer information for Massachusetts cities and towns, Massachusetts, and the United States.

When looking at cancer rates in these areas, keep in mind –

- Cancer is a general name for a variety of diseases with different causes and associated factors.
- It can take many years from the time people are exposed to cancer-causing agents until the time they develop cancer.
- Cancer rates may be different between geographic areas because of variations in racial/ethnic populations, screening rates for cancer, or health behaviors (such as use of tobacco, eating habits, or levels of physical activity).

For information about environmental health concerns, see BEHA protocol

Choose an area to learn more about cancer programs/services and cancer statistics for that area.

- Massachusetts cities and towns
- Massachusetts
- The United States

Massachusetts cities and towns

Cancer programs/services
Results

C. Content

- **Survivor Perspective**

  **Problem:** Survivors noted an absence of survivor perspective. A lot of this information exists on the site, but is buried in other pages.

  **Suggestion:** There needs to be a more prominent Survivor pathway, and more information for survivors, even if it is links to other sites.
Conclusions

- 1. Unique example of public/private partnership
- 2. The importance of perspective
- 3. Never assume anything
“You Can Observe A Lot By Watching”

Yogi Berra
Former Catcher
New York Yankees