

Draft Report for the Division of Cancer Prevention Website

Usability Evaluation

Conducted by User-Centered Design, Inc.

For the

National Cancer Institute's Division of Cancer Prevention

September 2013

User Centered Design Inc.
20548 Deerwatch Place
Ashburn, VA 20147
(703) 729-0998

Executive Summary

The Division of Cancer Prevention (DCP) conducts and supports research to determine a person's risk of developing cancer and to find ways to reduce that risk. Investigators supported by the Division are generating new information about molecular processes that are vulnerable to interventions; developing effective chemoprevention agents; discovering early detection biomarkers; pinpointing mechanistically targeted nutrients; testing new screening methods and technologies; and conducting phase I, II and III clinical trials in prevention and control through national networks and at the community level.

The DCP website has been in existence in its current design since late 2006, and has had only one previous usability review in 2009. The evaluations described in this report were carried out in order to determine if changes made as a result of the earlier evaluation have improved the ability of the users to locate information and navigate the website more easily.

To carry out the objective of the project, User Centered Design Inc. (UCD) conducted a heuristic evaluation (expert review) of the website. Additionally, two rounds of usability evaluations were carried out on a mockup version of a potential new site design. Nineteen (19) individuals participated in the usability evaluations (12 in the first, and nine in the second), representing current and potential grantee researchers, research staff on DCP-funded network projects, and NCI, NIH, and DHHS staff. Participants explored the mockup remotely and provided their feedback on the site.

The first round of usability evaluations showed that the new organization for the site was fairly easy to understand for participants. Some issues with noticing the navigation on the left side of the page were noted, as well as a few minor issues with labeling, interpreting text descriptions, and showing staff information. By the next round, many of these areas showed improvement, with only a few opportunities withstanding for further refinement for pages mostly in the Major Trials, Research Groups, and Clinical Trials sections.

Overall, the proposed design for DCP's site was well received and anticipated by several participants who reported that the information on the site was of great use.

This report documents all the activities of this project as described above. All documents used for testing are attached in the appendix following the report.

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Introduction

The Division of Cancer Prevention (DCP) conducts and supports research to determine a person's risk of developing cancer and to find ways to reduce that risk. Investigators supported by the division are generating new information about molecular processes that are vulnerable to interventions; developing effective chemoprevention agents; discovering early detection biomarkers; pinpointing mechanistically targeted nutrients; testing new screening methods and technologies; and conducting phase I, II and III clinical trials in prevention and control through national networks and at the community level.

The DCP website has been in existence in its current design since late 2006, and has had only one previous usability review in 2009. The evaluations described in this report were carried out in order to determine if changes made as a result of the earlier evaluation have improved the ability of the users to locate information and navigate the website more easily.

UCD was contracted to help assess the usability of the DCP website. A heuristic evaluation (expert review) and two rounds of usability evaluations with participants who use or are likely to use the DCP website were performed. This final report documents the methods and findings of all activities.

Method

Before the usability evaluations, an expert review was carried out on the site in December 2012. Two human factors engineers independently reviewed the site. Each used a heuristic evaluation approach based on an adapted version of Nielsen's "Ten Usability Heuristics for Interface Design" as well as their own knowledge of web standards and best practices. The findings of each engineer's evaluations were combined and were presented in a PowerPoint briefing delivered on December 6th, 2012. In the following months, a mockup version of the site was constructed in the wireframing tool Axure, based on suggested recommendations in the feedback.

For the first round of evaluations, twelve (12) participants successfully completed their sessions. This round was conducted in August 2013, and consisted of five (5) non-DCP researchers, four (4) members of DCP staff (two of which were new to DCP), and three (3) researchers who belonged to a network program of DCP. Participants were recruited by e-mail from a list of individuals with appropriate backgrounds provided by DCP. An interrupted, task-based protocol was used to facilitate the usability evaluations. Each session was conducted remotely, via the online conferencing software, GoToMeeting.

Participants viewed the mockup website (available at http://share.axure.com/LOH6VO/Copy_of_Home.html) and commented on the site's usability. Feedback from these participants was analyzed by UCD and aggregated into a PowerPoint briefing delivered on August 5th 2013. The mockup was again updated to reflect some changes that were suggested in the feedback from the first round.

The second round of evaluations was held in September 2013. Three (3) NCI/NIH staff, one (1) member of DCP staff, and three (3) external researchers participated, for a total of seven (7) participants. Similar to the previous round, an interrupted, task-based protocol was used to facilitate the evaluations done for an updated version of the live site; and feedback was again analyzed and aggregated into a PowerPoint briefing delivered on September 19th, 2013.

The findings of all three evaluations are included below.

Findings

The findings of the expert review and both rounds of usability evaluations are described in this section. Findings are broken down by main categories on the site, as designated by the top navigation bar. Screenshots of the website or other relevant materials accompany the findings when available.

Expert Review

Homepage

Homepage Navigation: The page navigation is visible at the top of the DCP Homepage (see Figure 1), but the colored bars do not seem to have significance. Additionally, there is no positional feedback for the Home tab.

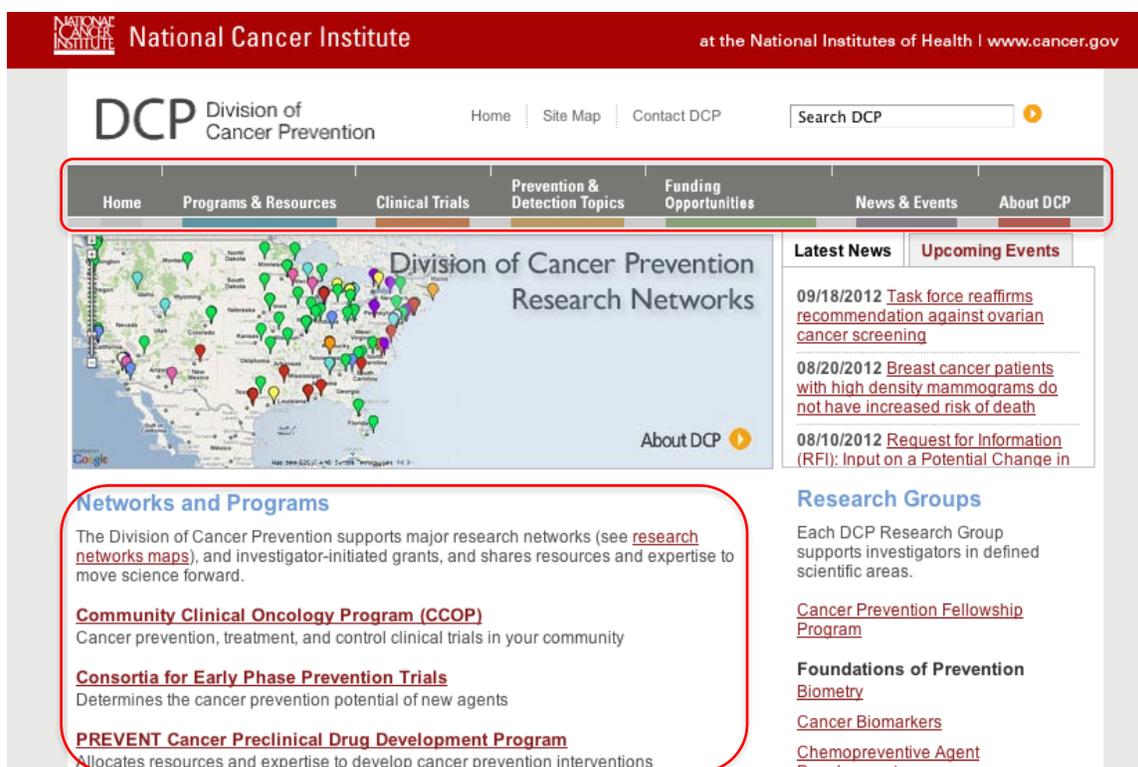


Figure 1: The Division of Cancer Prevention Homepage.

“Networks and Programs” are featured on the homepage (Figure 1); however, the links in this section direct the user to cancer.gov sites outside DCP as well as different areas on the DCP website. Mixing external and DCP content in this section could potentially be confusing from a navigation standpoint. The links go to:

- 1) Cancer.gov site
- 2) Different section of DCP site (CTs)

- 3) Different section of DCP site (P&R)
- 4) NCI site that links back to DCP
- 5) Cancer.gov site
- 6) Cancer.gov CT site
- 7) Different section of DCP site
- 8) Different section of DCP site

Homepage Research Opportunities: Research Opportunities fall below the fold of the homepage, as seen in Figure 2, which keeps them out of the way of main content; however, it may not be apparent why these certain opportunities are shown.

Research Opportunities	Closing Date:
<u>Potential Effects of Metformin on Aging and Age-Related Conditions: Small-Scale Clinical Studies and Secondary Analysis of Controlled Clinical Studies</u> (R01)	January 8, 2016
<u>Improving Diet and Physical Activity Assessment</u> (R21) (R01)	September 08, 2015
<u>NCI Small Grants Program for Cancer Research</u> (R03)	September 08, 2015
<u>NCI Exploratory/Developmental Research Grant Program</u> (R21)	September 08, 2015
<u>Biomechanisms of Peripheral Nerve Damage by Anti-Cancer Therapy</u> (R01) (R21)	May 08, 2015
<u>Biomarkers of Infection-Associated Cancers</u> (R01) (R21)	May 08, 2014
<u>Mitochondria in Cancer Epidemiology, Detection, Diagnosis and Prognosis</u> (R01) (R21)	January 08, 2014
<u>Cancer Prevention Research Small Grant Program</u> (R03)	December 17, 2013
<u>Identification and Characterization of Molecular Targets Within the mTOR Pathway With Potential to Impact Healthspan and Lifespan</u> (R21)	May 18, 2013

Figure 2: Research Opportunities List on the Homepage.

Homepage Graphic: This graphic in Figure 3 shows “About DCP” with an arrow, which suggests that clicking it will go to the About DCP section (the other four graphics behave this way). However, this one goes to a detailed map. It is appropriate to go to a bigger, detailed version of the map, it just might not be apparent that that will happen when clicking “About DCP.”



Figure 3: Graphic on the DCP Homepage.

Programs and Resources

Research Groups vs. Major Programs: There is intro text for the Programs and Resources section (see Figure 4), the research group page, and the major programs page, but the relationship between the research groups and programs may be unclear.

Programs & Resources

Research Groups

Major Programs

Resources for Investigators

Publications

QUICK LINKS

- PLCO Cancer Screening Trial
- Community Clinical Oncology Program (CCOPs)
- Early Detection Research Network (EDRN)
- Alliance of Glycobiologists
- DCP Publications

DCP Programs and Resources

The NCI Division of Cancer Prevention plans, directs, implements, and monitors clinical and laboratory research focused on cancer risk predictors, chemoprevention, early detection, and supportive care.

Research Groups

There are 10 Research Groups in DCP. Each one is dedicated to supporting defined areas of cancer prevention science. They are: Biometry, Cancer Biomarkers, Chemoprevention Agent Development, Community Oncology and Prevention Trials, Early Detection, Nutritional Science, Breast and Gynecologic Cancer, Gastrointestinal and Other Cancers, Lung and Upper Aerodigestive Cancer, and Prostate and Urologic Cancer.

Major Programs

Major division programs include the: Alliance of Glycobiologists for Detection of Cancer and Cancer Risk; Community Clinical Oncology Program; Consortia for Early Phase Prevention Trials; Early Detection Research Network; and PREVENT Cancer Drug Development Program.

Resources for Investigators

This section directs researchers to information about prevention agents, statistical software, clinical trials management and more.

Publications

This section contains links to several bibliographies of DCP reports, journal articles.

Figure 4: Intro text on the Programs and Resources Page.

Section Banner: Some users may expect that clicking the banner (the Programs and Resources banner is circled in Figure 5) will take them back to the main page for that section. Currently, the only way to get back to that page is to click the (already highlighted) tab at the

top. There is also no main page link given on the left navigation, which further complicates navigation back to the main page.

Home Programs & Resources Clinical Trials Prevention & Detection Topics Funding Opportunities News & Events About DCP

Programs & Resources

Research Groups

Major Programs

Resources for Investigators

Publications

QUICK LINKS

- PLCO Cancer Screening Trial
- Community Clinical Oncology Program (CCOPs)
- Early Detection Research Network (EDRN)
- Alliance of Glycobiologists
- DCP Publications

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This section directs researchers to information about prevention agents, statistical software, clinical trials management and more.

Publications
This section contains links to several bibliographies of DCP reports, journal articles.

Figure 5: Banner on the Programs and Resources Page.

Resources for Investigators – Software: The Statistical Software link (see Figure 6) takes you to a section in the Biometry Research Group. The user “jumps” from the Resources section to the Research Group section without any explanation. This may hinder their formation of a mental model of the site.

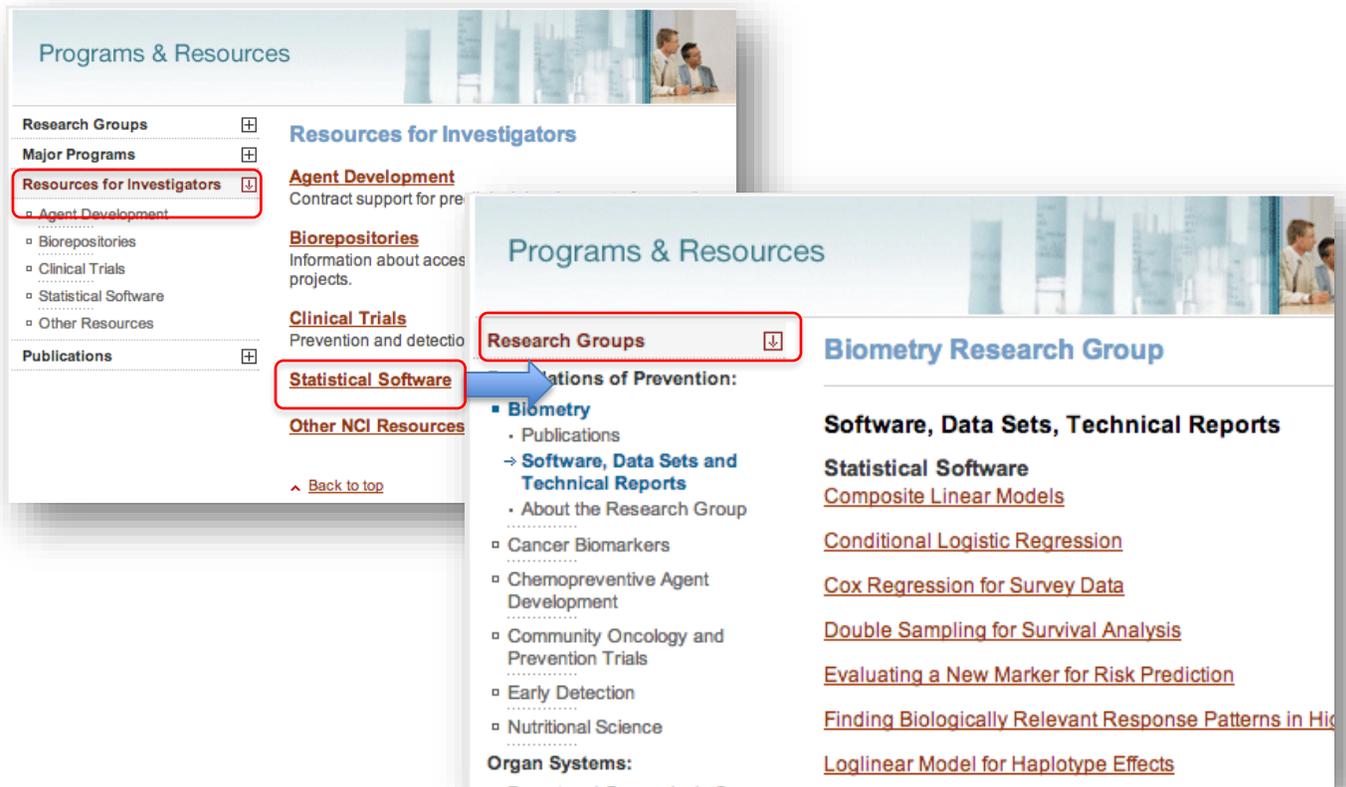


Figure 6: Navigation from Resources for Investigators to Research Groups.

Left Side Navigation: These [+] boxes may suggest an expansion of the navigation on the same page, but the content area of the page changes – it takes the user to a landing page. Here in the example seen in Figure 7, the user is on the Programs & Resources main page, and then is taken to the Research Group main page by clicking the plus next to the left navigation category (circled in red).

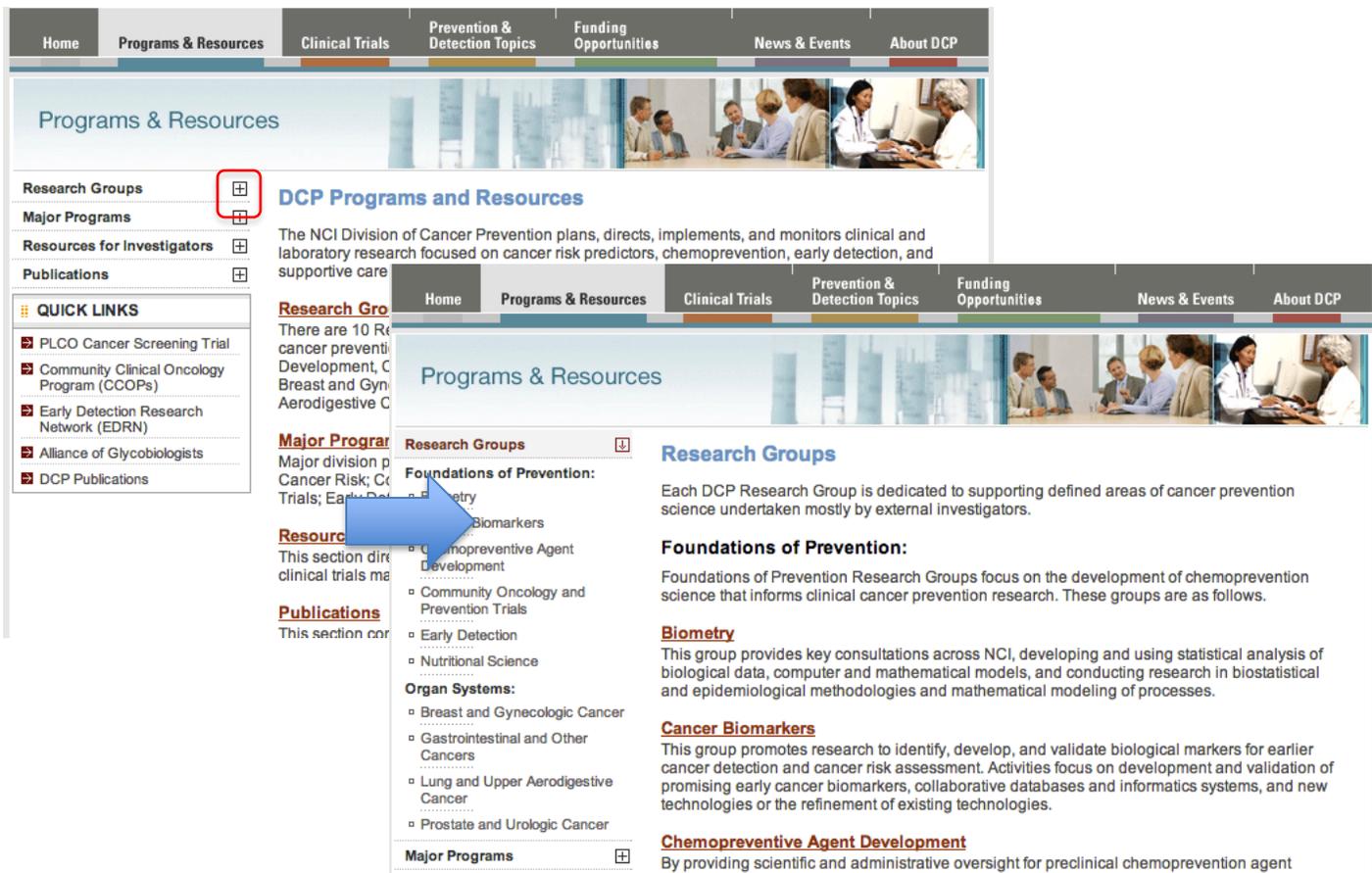


Figure 7: Navigation to the Research Groups Landing Page from Clicking the Plus Icon on the Programs and Resources Landing Page.

Publications Navigation: When exploring Publications, the user is required to drill down several pages to get to any actual publications. The left navigation also does not reflect these steps, as seen in Figure 8. The user is required to choose a research group to filter the list of publications they view. If they are looking for an article but are not sure which research group it belongs to, it could be difficult task.



Figure 8: Choosing A Research Group in the Publications Section.

Once a research group is chosen, the user is taken within that research group to view publications and is no longer in the overall “Publications” section of Programs & Resources. The user has jumped from the Publications area to a third level page within the Research Groups area (see Figure 9).

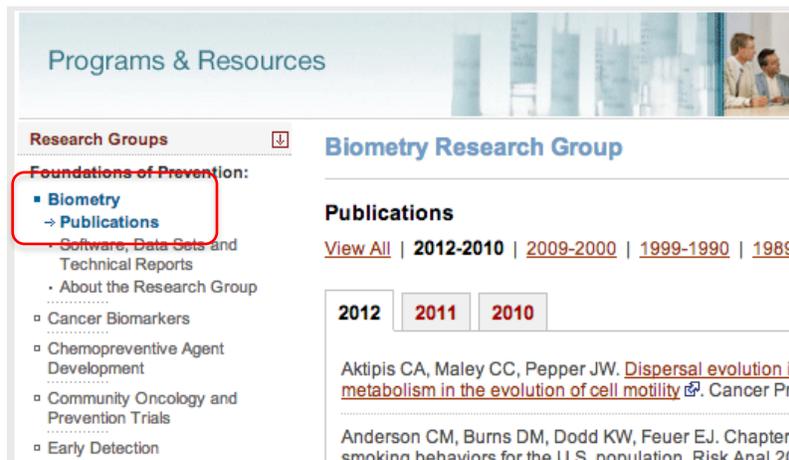


Figure 9: Publications on the Research Group Page After Making A Selection From the Publications Section.

Prevention and Detection Topics

Link to Major Programs: A link to Major Programs is also shown on the page in Figure 10. This takes the user to another area of the site (Programs & Resources section) without any notification.

Prevention & Detection Topics

Preventing & Detecting Specific Cancers

Lifestyle and Prevention

QUICK LINKS

- PLCO Cancer Screening Trial
- Community Clinical Oncology Program (CCOPs)
- Early Detection Research Network (EDRN)
- Alliance of Glycobiologists
- DCP Publications

Prevention and Detection Topics

This section contains links to information about preventing and detecting specific cancers, lifestyle factors and prevention, and major Division of Cancer Prevention programs.

Preventing and Detecting Specific Cancers

Links to information on prevention and detection of specific cancers, including breast, cervical, colorectal, endometrial, esophageal, lung, oral, ovarian, prostate, skin, and stomach. Links within DCP and throughout NCI offer details on genetic factors, causes, screening, key trials and contacts.

Lifestyle and Prevention

NCI fact sheets related to diet, food, and nutrition with links to web sites containing specifics about cancer causes and risk factors.

Major Programs

Major DCP programs that span cancer prevention research are highlighted:

- Clinical Trials
- Community Clinical Oncology Program - to support community-based physicians and

Figure 10: Link to Major Programs from the Prevention and Detection Topics Page.

About DCP

Staff Listing: Breaking down the staff into categories (while also offering a full list) is a good feature, however it is hard to read all the links or tell how they are separated. Figure 11 demonstrates this formatting.

About DCP



Scientific Scope

Research Groups and Offices

Research Networks Map

Staff Directory 

- DCP Staff List
- Administrative Resource Center (ARC)
- Associate Director for Clinical Research Group
- Breast and Gynecologic Cancer Research Group
- Biometry Research Group
- Cancer Biomarkers Research Group
- Chemopreventive Agent

DCP Staff Directories

The staff directories are provided for each DCP office. Each directory includes the staff members' names, email addresses, room numbers, and telephone numbers.

- [Complete DCP Staff List](#)
- [Administrative Resource Center \(ARC\)](#)
- [Associate Director for Clinical Research](#)
- [Biometry Research Group](#)
- [Breast and Gynecologic Cancer Research Group](#)
- [Cancer Biomarkers](#)
- [Chemopreventive Agent Development Research Group](#)
- [Community Oncology and Preventive Trials Research Group](#)
- [Early Detection Research Group](#)
- [Gastrointestinal and Other Cancers Research Group](#)

Figure 11: Formatting of Staff List in the About Section.

Round 1 Usability Evaluations

Homepage

Audience of the Site: Participants perceived the site to be for researchers and not the general public, due to the content in the news, content in the description, and the labels of the navigation, as shown in Figure 12.

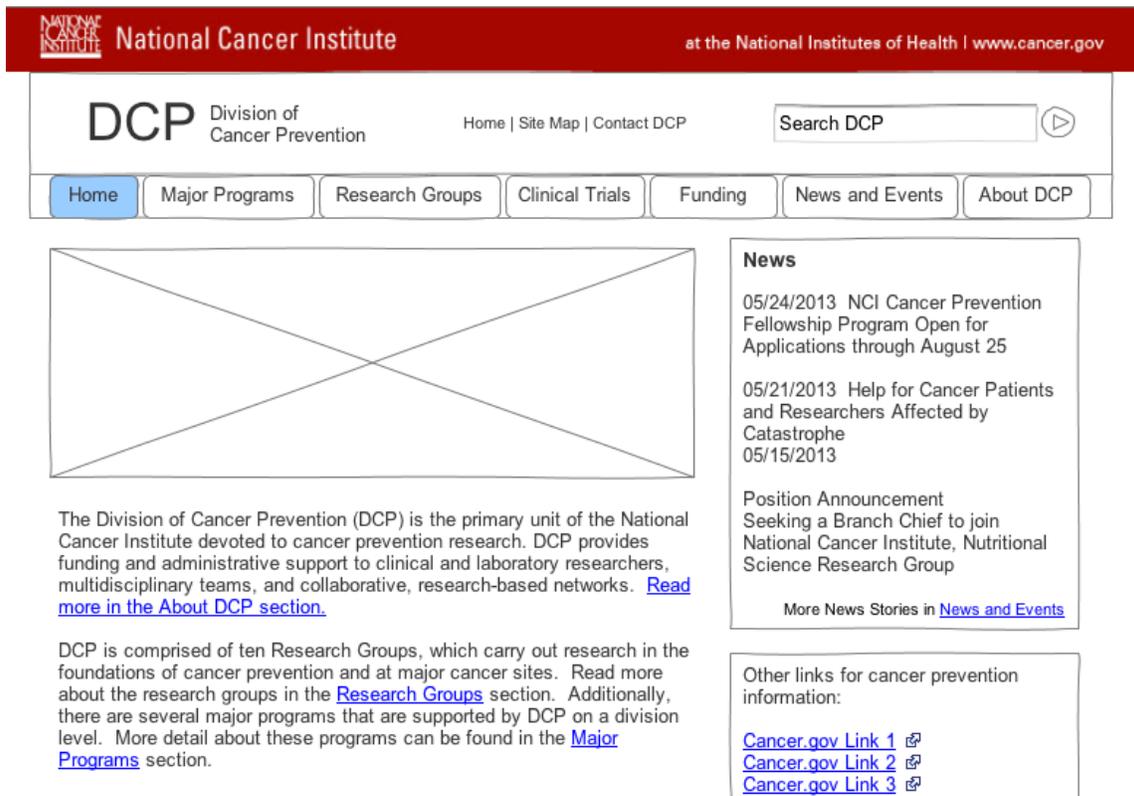


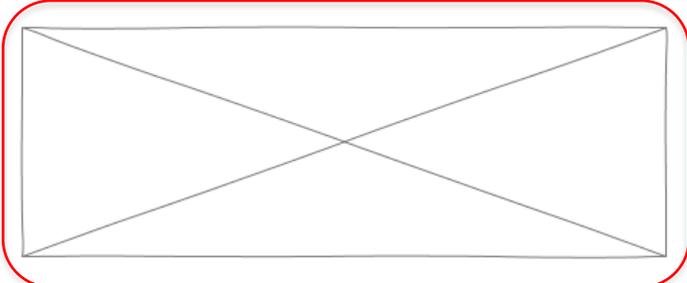
Figure 12: The Mockup Version of the DCP Website.

Content Area: Most participants expected to see an “attention grabbing” visual in the box placeholder in Figure 13 – something related to DCP, such as an emblem or physician/patient image. Others though it might have basic information about DCP or recent news/announcements.

National Cancer Institute at the National Institutes of Health | www.cancer.gov

DCP Division of Cancer Prevention Home | Site Map | Contact DCP Search DCP

Home Major Programs Research Groups Clinical Trials Funding News and Events About DCP



The Division of Cancer Prevention (DCP) is the primary unit of the National Cancer Institute devoted to cancer prevention research. DCP provides funding and administrative support to clinical and laboratory researchers, multidisciplinary teams, and collaborative, research-based networks. [Read more in the About DCP section.](#)

DCP is comprised of ten Research Groups, which carry out research in the foundations of cancer prevention and at major cancer sites. Read more about the research groups in the [Research Groups](#) section. Additionally, there are several major programs that are supported by DCP on a division level. More detail about these programs can be found in the [Major Programs](#) section.

News

05/24/2013 NCI Cancer Prevention Fellowship Program Open for Applications through August 25

05/21/2013 Help for Cancer Patients and Researchers Affected by Catastrophe

05/15/2013

Position Announcement Seeking a Branch Chief to join National Cancer Institute, Nutritional Science Research Group

[More News Stories in News and Events](#)

Other links for cancer prevention information:

[Cancer.gov Link 1](#) 

[Cancer.gov Link 2](#) 

[Cancer.gov Link 3](#) 

Figure 13: A Placeholder for Future Content on the DCP Homepage.

Homepage Information: Those who read these paragraphs on the homepage (circled in Figure 14) thought it was good, but suggested that a list of actual DCP programs would be more useful than just the words, “several programs.” Consider listing a few example research groups and programs in this text on the homepage.

DCP Division of Cancer Prevention Home | Site Map | Contact DCP Search DCP

Home Major Programs Research Groups Clinical Trials Funding News and Events About DCP

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News

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More News Stories in [News and Events](#)

Other links for cancer prevention information:

[Cancer.gov Link 1](#)

[Cancer.gov Link 2](#)

[Cancer.gov Link 3](#)

Figure 14: Introductory Information on the Homepage.

Major Programs

Major Program Pages: Participants noticed the names of the Major Programs in several places on the landing page for Major Programs (see Figure 15), which some mentioned were redundant. Consider removing the checkboxes from the map and use the Program Descriptions to control the locations shown on the map. A link to see all locations on the map can be used after browsing single programs.

National Cancer Institute at the National Institutes of Health | www.cancer.gov

DCP Division of Cancer Prevention Home | Site Map | Contact DCP Search DCP

Home Major Programs Research Groups Clinical Trials Funding News and Events About DCP

Major Programs Summary

- [Alliance of Glycobiologists for the Detection of Cancer](#)
- [Barrett's Esophagus Translational Research Network \(BETRNet\)](#)
- [Community Clinical Oncology Program](#)
- [Early Detection Research Network](#)
- [Phase 0/III Cancer Prevention Clinical Trials Program](#)
- [PREVENT Cancer Preclinical Drug Development Program](#)

Major DCP Programs and Research Networks: Summary

The Division of Cancer Prevention supports major scientific collaborations and research networks at more than 100 sites across the United States; investigator-initiated grants; postdoctoral training; and specialized resources for researchers.

Map of Research Networks and Program Locations

- Alliance of Glycobiologists
- Barrett's Esophagus Translational Research Network (BETRNet)
- Community Clinical Oncology Program
- Early Detection Research Network
- Phase 0/III Cancer Prevention Clinical Trials Program
- PREVENT Cancer Preclinical Drug Development Program

Program Descriptions

- ▷ Alliance of Glycobiologists for the Detection of Cancer
- ▷ Barrett's Esophagus Translational Research Network (BETRNet)
- ▷ Community Clinical Oncology Program (CCOP)

Figure 15: Several Places Where the Names of Major Programs are Mentioned on the Summary Page.

Major Programs Locations: With the current design, it may be possible to select one Major Program on the map, and have another program's description box open, which could be confusing. An example of this is shown in Figure 16. Consider only showing all locations on this map, and only one program locations on their detail page, or make sure the controls are perceived as only associated with the map (through a separator bar or some type of group box).

Map of Research Networks and Program Locations



- Alliance of Glycobiologists
- Barrett's Esophagus Translational Research Network (BETRNet)
- Community Clinical Oncology Program
- Early Detection Research Network
- Phase 0/I/II Cancer Prevention Clinical Trials Program
- PREVENT Cancer Preclinical Drug Development Program

Program Descriptions

▶ Alliance of Glycobiologists for the Detection of Cancer
▼ Barrett's Esophagus Translational Research Network (BETRNet)
Multidisciplinary translational research centers collaborate to better understand the biology of Barrett's esophagus and esophageal adenocarcinoma to improve risk stratification and develop prevention strategies.
▶ Community Clinical Oncology Program (CCOP)
▶ Early Detection Research Network (EDRN)
▶ Phase 0/I/II Cancer Prevention Clinical Trials Program (Consortia)
▶ PREVENT Cancer Preclinical Drug Development Program

Figure 16: Example Where "Alliance of Glycobiologists" is Checked on the Map and the Description for BETRNet in the Accordion is Open.

A possible redesign for the location map for Major Programs is shown in Figure 17. Adding a border around the map and its controls may show that the checkboxes and the image are associated by creating a Gestalt.

research networks at more than 100 sites across the United States, investigator-initiated grants; postdoctoral training; and specialized resources for researchers.

Map of Research Networks and Program Locations



- Alliance of Glycobiologists
- Barrett's Esophagus Translational Research Network (BETRNet)
- Community Clinical Oncology Program
- Early Detection Research Network
- Phase 0/II Cancer Prevention Clinical Trials Program
- PREVENT Cancer Preclinical Drug Development Program

Program Descriptions

▷ Alliance of Glycobiologists for the Detection of Cancer

Figure 17: Possible Map of Locations for Major Programs.

Major Programs Projects: Participants found the information on the pages for each Major Program useful (the Alliance of Glycobiologists is shown in Figure 18); however, a few mentioned they expected to see a list of projects/activities that the group does. Currently, the research groups mention the programs they are associated with, but there is no mention of research groups from the major programs page. Consider mentioning activities in a list with a link to the associated research group's "Programs and Projects" page. When linking, orient the users by including text that tells them they are going to another section of the website.

Home	Major Programs	Research Groups	Clinical Trials	Funding	News and Events	About DCP
------	-----------------------	-----------------	-----------------	---------	-----------------	-----------

<p>Major Programs Summary</p> <p>Alliance of Glycobiologists for the Detection of Cancer</p> <p>Barrett's Esophagus Translational Research Network (BETRNet)</p> <p>Community Clinical Oncology Program</p> <p>Early Detection Research Network</p> <p>Phase 0/III Cancer Prevention Clinical Trials Program</p> <p>PREVENT Cancer Preclinical Drug Development Program</p>	<h2>Alliance of Glycobiologists for the Detection of Cancer</h2> <p>The Alliance of Glycobiologists for Detection of Cancer is a consortium of eight Tumor Glycomics Laboratories and research partners. The Alliance is working to reveal the cancer-related dynamics of complex carbohydrates, and to develop new validated, clinical biomarkers for early cancer detection.</p> <p>By combining resources and expertise, the Alliance brings an unrivaled strength to this emerging field. Here you will find publications, recent news and media coverage, upcoming meetings and events, contact information and scientific resources from Alliance members.</p> <p>The mission of the Alliance is to study structure and function of glycans in relation to cancer development towards developing clinically useful biomarkers for the early detection of cancer by using a variety of approaches and technologies. This charge also requires extensive collaborations across institutions with different skills and facilities to accelerate glycan-based biomarkers to the forefront of NCI's efforts to detect and diagnose cancer at early stages.</p> <p>More information on the external website for the Alliance of Glycobiologists.</p> <h3>Glycomics Cancers in the U.S.</h3>  <h4>Glycomics Center Locations and P.I. Contact Info</h4> <table border="1"> <tr> <td>▷ Drexel University</td> </tr> <tr> <td>▷ Another Example</td> </tr> </table>	▷ Drexel University	▷ Another Example
▷ Drexel University			
▷ Another Example			

Figure 18: Alliance for Glycobiologists Page.

Consortia Documents: One participant was particularly interested in accessing Consortia documents. She went to the Major Programs page for the Consortia first (see Figure 19), expecting to find the documents here. Consider mentioning the documents and have a link to the Clinical Trials Management page. When linking be sure to clarify that the link is taking the user to another section of the DCP website.

<p>Major Programs Summary</p> <p>Alliance of Glycobiologists for the Detection of Cancer</p> <p>Barrett's Esophagus Translational Research Network (BETRNet)</p> <p>Community Clinical Oncology Program</p> <p>Early Detection Research Network</p>	<h2>Phase 0/I/II Cancer Prevention Clinical Trials Program (Consortia for Early Phase Prevention Trials)</h2> <p>The Division of Cancer Prevention conducts systematic early clinical development of promising preventive agents through its Phase 0/I/II Cancer Prevention Clinical Trials Program, also known as the Consortia for Early Phase Prevention Trials. Cancer prevention drug discovery is identifying many new agents, including an increasing number of agents that intervene in specific molecular pathways thought to be critical to cancer development. Since cancer prevention studies focus on high-risk populations that do not necessarily harbor a detectable cancer, these studies require extensive biomarker analysis, investigation of the biologic effects of the cancer preventive agents on their intended molecular targets, and correlation with clinically relevant endpoints.</p>		
<p>Phase 0/I/II Cancer Prevention Clinical Trials Program</p> <p>* Publications</p> <p>* Consortia Trials</p>	<h3>Consortia Locations in the U.S.</h3> 		
<p>PREVENT Cancer Preclinical Drug Development Program</p>	<h3>CCOP Locations and P.I. Contact Info</h3> <table border="1"> <tr> <td data-bbox="561 972 1263 1014">▷ Mayo Clinic Foundation, Rochester, MN</td> </tr> <tr> <td data-bbox="561 1014 1263 1056">▷ Another Example</td> </tr> </table>	▷ Mayo Clinic Foundation, Rochester, MN	▷ Another Example
▷ Mayo Clinic Foundation, Rochester, MN			
▷ Another Example			

Figure 19: Consortia for Early Phase Prevention Trials Website.

Research Groups

What are Research Groups?: One participant was under the assumption that research groups might just be a collection of grants. They wondered if external collaboration was possible. Consider adding more information at the top of the page (see Figure 20) about how the research groups operate on this page.

Research Groups Summary	Research Groups Summary						
<p>(Groups by Foundations of Prevention)</p> <p>Biometry</p> <p>Cancer Biomarkers</p> <p>Chemopreventative Agent Development</p> <p>Community Clinical Oncology Program</p> <p>Early Detection</p> <p>Nutritional Sciences</p> <hr/> <p>(Groups by Organ System)</p> <p>Breast and Gynecologic Cancers</p> <p>Gastrointestinal and Other Cancers</p> <p>Lung and Upper Aerodigestive Cancers</p> <p>Prostate and Urologic Cancers</p>	<p>Each DCP Research Group is dedicated to supporting defined areas of cancer prevention science undertaken mostly by external investigators.</p> <p>Foundations of Prevention Research Groups</p> <p>Foundations of Prevention Research Groups focus on the development of chemoprevention science that informs clinical cancer prevention research. These groups are as follows.</p> <table border="1"> <tr><td>▷ Biometry Research Group</td></tr> <tr><td>▷ Cancer Biomarkers Research Group</td></tr> <tr><td>▷ Chemopreventative Drug Development Research Group</td></tr> <tr><td>▷ Community Oncology and Prevention Trials</td></tr> <tr><td>▷ Early Detection Research Group</td></tr> <tr><td>▷ Nutritional Sciences Research Group</td></tr> </table>	▷ Biometry Research Group	▷ Cancer Biomarkers Research Group	▷ Chemopreventative Drug Development Research Group	▷ Community Oncology and Prevention Trials	▷ Early Detection Research Group	▷ Nutritional Sciences Research Group
▷ Biometry Research Group							
▷ Cancer Biomarkers Research Group							
▷ Chemopreventative Drug Development Research Group							
▷ Community Oncology and Prevention Trials							
▷ Early Detection Research Group							
▷ Nutritional Sciences Research Group							

Figure 20: The Research Groups Summary Page.

Research Group Navigation: Almost all participants knew to click on the accordion headers on the Research Groups Summary Page in Figure 21, but most expected to see a link to more information after the short description. About half the participants said they expected to see links in the center of the page throughout the site. Consider adding a link at the end of the short description.

Foundations of Prevention Research Groups

Foundations of Prevention Research Groups focus on the development of chemoprevention science that informs clinical cancer prevention research. These groups are as follows.

▽ Biometry Research Group
This group provides key consultations across NCI, developing and using statistical analysis of biological data, computer and mathematical models, and conducting research in biostatistical and epidemiological methodologies and mathematical modeling of processes.
▷ Cancer Biomarkers Research Group
▷ Chemopreventative Drug Development Research Group
▷ Community Oncology and Prevention Trials
▷ Early Detection Research Group
▷ Nutritional Sciences Research Group

Figure 21: Area Where Participants Expected to See Links to the Research Group's Page.

Left Navigation: Once on the summary page for a research group, participants thought the information was good, but they frequently missed the navigation on the left side, shown in Figure 22. Many were unable to explain why they missed it, and could navigate successfully after finding it. The small font and formatting of the links in the mockup may have contributed to the participants' difficulty. One mentioned that the links in the center content stood out more from the "sea of blue links" on the side. Consider reformatting the left navigation area by highlighting only the active page and removing the line separating the navigation and content area.

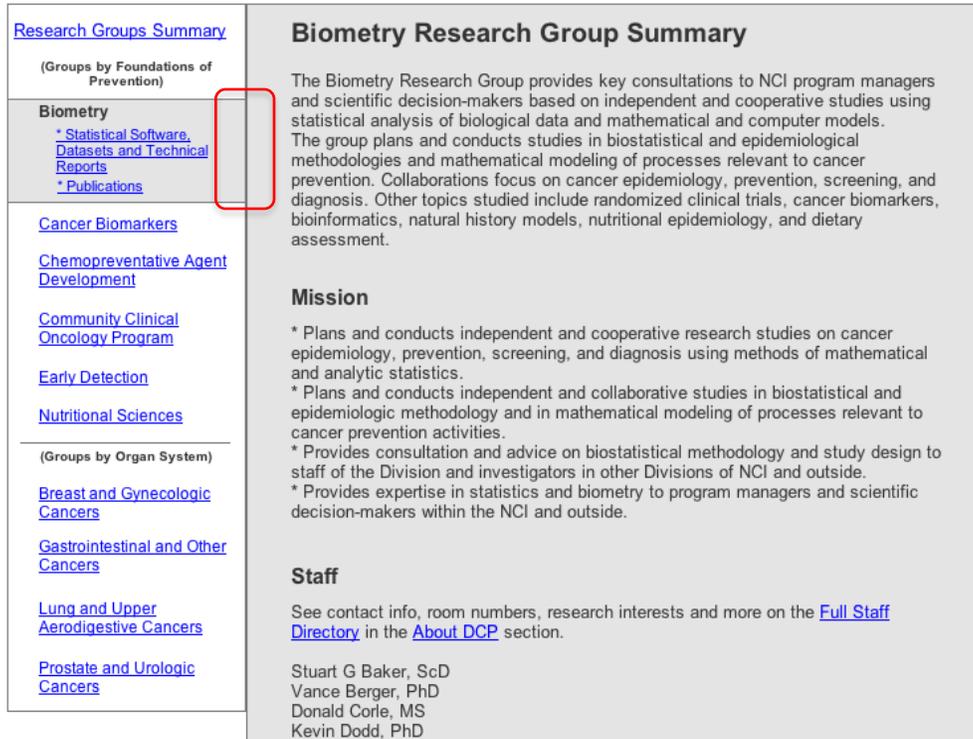


Figure 22: Separation Between the Left Navigation and the Main Content Area of the Biometry Page.

A possible redesign for the left navigation could involve a background tie-in, as depicted in Figure 23. Here, there is no separation between the navigation area and the main content, which provides positional feedback and creates a visual connection of both these areas.

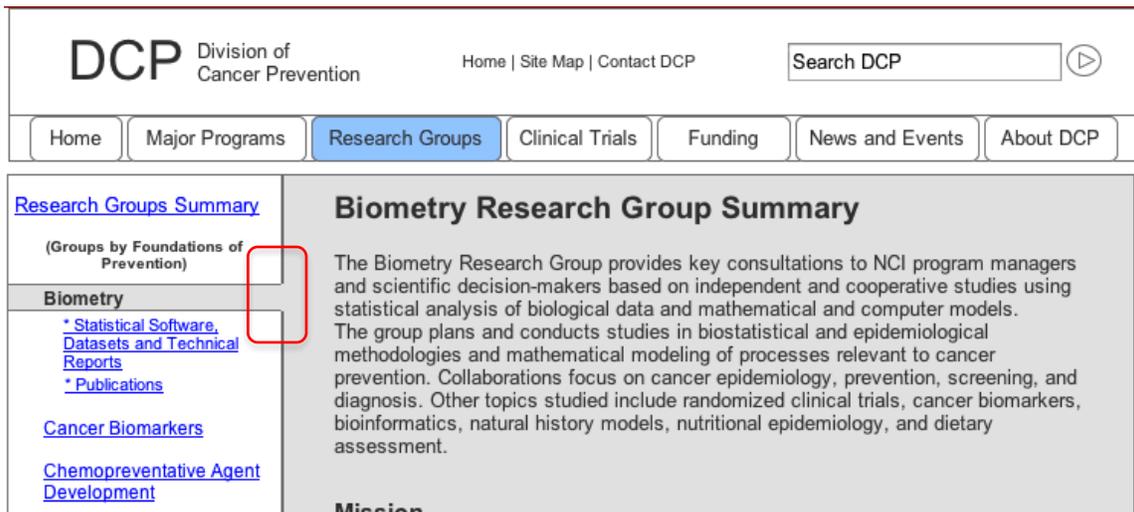


Figure 23: Possible Left Navigation Redesign.

Staff Listing on Research Groups: Participants liked seeing a list of staff members on the Research Group pages (see Figure 24). However, they found going to the full staff page for contact information to be inconvenient – they essentially had to look for a person twice. Consider showing room and phone number for staff members on this page.

The screenshot shows a research group page with a sidebar on the left containing two blue links: "Lung and Upper Aerodigestive Cancers" and "Prostate and Urologic Cancers". The main content area has a "Staff" section with a red rounded rectangle highlighting a list of names and credentials: Maria Agelli, MD, MS, FACPM; Nancy Emenaker, PhD, RD; Roberto Flores, PhD, MS, MPH; Riante Jones; Sandeep (Anu) Kaur, MS, RD, RYT; Young Kim, PhD; Larae McCarty; Holly NiCastro, PhD, MPH; Gabriela Riscuta, MD, CNS; Sharon Ross, PhD, MPH; Harold Seifried, PhD; and Elaine Trujillo, MS, RD. Below the staff list is a "Research Group Contact Info" section with phone and fax numbers, and two columns of addresses: "U.S. Mail Address" and "Commercial Delivery Address".

Figure 24: Staff List on a Research Group Page.

Staff Biosketch Information: Additionally, some participants were interested in seeing biosketch information, and experienced the same inconvenience having to go to the full staff list on a separate page. Consider including a link to biosketch information and show it in a lightbox on this page (Figure 24).

Clinical Trials

Clinical Trials Content: Participants thought the category content was good for the Clinical Trials section (seen in Figure 25). One participant mentioned wanting to see names of people working on a specific trial. Consider providing a link to individuals working on a clinical trial, or including that information on an intranet site.

Some participants mentioned that listing some example trials under the “Major Trials” description on the summary page would be helpful to understand what kind of trials fall into that category.

Home	Major Programs	Research Groups	Clinical Trials	Funding	News and Events	About DCP
----------------------	--------------------------------	---------------------------------	---------------------------------	-------------------------	---------------------------------	---------------------------

<p>Clinical Trials Summary</p> <p>Recently Opened Trials</p> <p>New Study Designs</p> <p>Major Trials</p> <p>Search NCI Clinical Trials</p> <hr/> <p>Clinical Trials Management</p>	<p>Clinical Trials Summary</p> <p>Information about actively enrolling, ongoing, and completed clinical trials of cancer prevention, early detection, and supportive care, including phase I, II, and III agent and action trials and clinical trials management.</p> <p>Recently Opened Trials New trials that have just begun the recruitment process. Lorem ipsum.</p> <p>New Study Designs The unique design of these studies has made an impact on how cancer prevention studies are designed today. Lorem ipsum.</p> <p>Major Trials These trials have had write-ups done on them. They are large-scale, major trials. Lorem ipsum.</p> <p>Search the NCI Clinical Trials Database Search the NCI's clinical trials database for ongoing and completed clinical trials for cancer prevention, screening and early detection, and supportive and palliative care.</p> <hr/> <p>Clinical Trials Management Information for researchers about developing, reporting, and managing NCI-funded cancer prevention clinical trials.</p>
--	--

Figure 25: The Clinical Trials Summary Page.

Recently Opened Trials: Participants mentioned that they would want the following information on the Recently Opened Trials page (Figure 26):

- Approval by NCI
- Open/closed to accrual
- Trial locations
- Trial number and title
- Groups running the trial

Consider adding a link to the trial at ClinicalTrials.gov.

Home	Major Programs	Research Groups	Clinical Trials	Funding	News and Events	About DCP
----------------------	--------------------------------	---------------------------------	---------------------------------	-------------------------	---------------------------------	---------------------------

<p>Clinical Trials Summary</p> <hr/> <p>Recently Opened Trials</p> <ul style="list-style-type: none"> * Example Trial * Example Trial * Example Trial <hr/> <p>New Study Designs</p> <p>Major Trials</p> <p>Search NCI Clinical Trials</p> <hr/> <p>Clinical Trials Management</p>	<h2 style="margin-top: 0;">Recently Opened Trials</h2> <p>These are recently opened trials. Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.</p> <p>Example 1 Study Design Details. Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.</p> <p>Example 2 Study Design Details. Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.</p> <p>Example 3 Study Design Details. Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.</p>
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Figure 26: Recently Opened Trials.

New Study Designs: When asked what they expected to see on the New Study Designs page (Figure 27), participants seemed a bit unsure. Most thought that this would give information about unique methods used in studies.

Home	Major Programs	Research Groups	Clinical Trials	Funding	News and Events	About DCP
----------------------	--------------------------------	---------------------------------	---------------------------------	-------------------------	---------------------------------	---------------------------

<p>Clinical Trials Summary</p> <p>Recently Opened Trials</p> <hr/> <p>New Study Designs</p> <ul style="list-style-type: none"> * Example Study Design * Example Study Design * Example Study Design <hr/> <p>Major Trials</p> <p>Search NCI Clinical Trials</p> <hr/> <p>Clinical Trials Management</p>	<h2 style="margin-top: 0;">New Study Designs</h2> <p>These are new study designs. Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.</p> <p>Example 1 Study Design Details. Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.</p> <p>Example 2 Study Design Details. Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.</p> <p>Example 3 Study Design Details. Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.</p>
---	---

Figure 27: New Study Designs Page.

Major Trials Details: Participants liked having detailed information about major trials on their landing page (see Figure 28). However, some weren't sure if the list was a particular order, and mentioned wanting to see years the trial was active (the Major Trials section will be updated for the second round according to the current proposed design, which does include the years of the trials). Consider listing Major Trials from most recent (top) to least recent (bottom).

Home	Major Programs	Research Groups	Clinical Trials	Funding	News and Events	About DCP
----------------------	--------------------------------	---------------------------------	---------------------------------	-------------------------	---------------------------------	---------------------------

<p>Clinical Trials Summary</p> <p>Recently Opened Trials</p> <p>New Study Designs</p> <p>Major Trials</p> <ul style="list-style-type: none"> * Breast Cancer Prevention Trial (BCPT) * Prostate Cancer Prevention Trial (PCPT) * PLCO Cancer Screening Trial * ASCUS/LSIL Triage Study for Cervical Cancer (ALTS) * Study of Tamoxifen and Raloxifene (STAR) Trial * Selenium and Vitamin E Cancer Prevention Trial (SELECT) * National Lung Screening Trial (NLST) <p>Search NCI Clinical Trials</p> <hr/> <p>Clinical Trials Management</p>	<h2 style="margin-top: 0;">Major Trials</h2> <p>These trials have had write-ups done on them. They are large-scale, major trials. Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.</p> <p>Breast Cancer Prevention Trial (BCPT) The Breast Cancer Prevention Trial (BCPT) was designed to see whether taking the drug tamoxifen (Nolvadex®) could prevent breast cancer in women who are at an increased risk of developing the disease. The BCPT was also looking at whether taking tamoxifen decreases the number of heart attacks and reduces the number of bone fractures in these women.</p> <p>Prostate Cancer Prevention Trial (PCPT) The main study objective was to see whether the drug finasteride (Proscar™) can prevent prostate cancer in men age 55 and older.</p> <p>PLCO Cancer Screening Trial The Prostate, Lung, Colorectal and Ovarian (PLCO) Cancer Screening Trial is a large population based randomized trial designed and sponsored by the National Cancer Institute (NCI) to determine the effects of screening on cancer-related mortality and secondary endpoints in men and women aged 55 to 74.</p> <p>ASCUS / LSIL Triage Study for Cervical Cancer The ASCUS/LSIL Triage Study for Cervical Cancer (ALTS) was a clinical trial to find the best way to help women and their doctors decide what to do about the mildly abnormal and very common Pap test results known as ASCUS and LSIL. About three million women in the United States are diagnosed with ASCUS and LSIL each year. Organized and funded by the National Cancer Institute, ALTS included more than 5,000 women. It began in November 1996 and concluded at the end of 2000. Data analysis of the trial's findings is ongoing.</p> <p>Study of Tamoxifen and Raloxifene (STAR) The Study of Tamoxifen and Raloxifene, or STAR, is a clinical trial designed see how</p>
---	--

Figure 28: Major Trials Landing Page.

Clinical Trials Management – Consortia: One participant was interested in the Consortia section (see Figure 29), as she wanted to find information about how to get involved in the program, but could not find it. Consider including contact information for more information in joining the Consortia.

Clinical Trials Summary

[Recently Opened Trials](#)

[New Study Designs](#)

[Major Trials](#)

[Search NCI Clinical Trials](#)

[Clinical Trials Management](#)

2012 Consortia Materials

These documents are for the use of the DCP Consortia staff conducting cancer chemoprevention studies under contract with the NCI/DCP. For more information on the [Phase 0/I/II Cancer Prevention Clinical Trials Program](#), see the [Major Programs](#) section of the DCP website.

2012 Consortia Materials by Step

Develop (Step 1)
Conduct (Step 2)
Monitor (Step 3)
Close Out (Step 4)

Standard Operation Procedures (SOPs) for the 2012 Consortia are being finalized. These links are to important documents used in the SOPs. Additional materials will be added as they are completed.

Protocol Development

[Task Order Technical Proposal Submission Form](#) (doc, 34kb)
[DCP Consortia Protocol Submission Worksheet](#) (doc, 89kb)
[DCP Consortia Protocol Template](#) (doc, 311kb)

DCP Consortia Additional Study Related Documents Template

- A. [Recruitment, Retention, and Adherence Plan Template](#) (doc, 50kb)
- B. [Pharmacokinetic and Biomarker Method Development Report](#) (doc, 74kb)
- C. Case Report Forms (CRFs) and CRF Instructions (pending)
- D. [Data Management Plan \(DMP\)](#) (doc, 77kb)
- E. Multi-Institutional Monitoring Plan (MIMP) (pending)
- F. Data and Safety Monitoring Plan (DSMP) (pending)

Figure 29: Consortia Materials Page in the Clinical Trials Section.

Funding

DCP Funding Opportunities: The DCP Funding Opportunities page (Figure 30) had most of the important funding information participants said they would be looking for. However, some were not sure how the categories mapped – they noticed that they didn’t exactly match to the research groups or major programs. They also mentioned wanting sortable tables, which would be recommended in the actual site, but the function cannot be simulated in the mockup. Consider labeling the “Category” column “Research Category” to be more descriptive.

Home Major Programs Research Groups Clinical Trials **Funding** News and Events About DCP

[Funding Summary](#)

DCP Funding Opportunities

[Non-DCP Funding Opportunities](#)

[Funding Resources](#)

These are DCP-supported funding opportunities, organized by category of funding and listed by date of expiry. For information on how to apply and other information, check the [Funding Resources](#) page.

Category	Title	Announcement #	Expiration Date
Biomarkers	Early-Stage Innovative Molecular Analysis Technology Development for Cancer Research	RFA-CA-13-001 (R21) RFA-CA-13-003 (R21)	September 21, 2013
Biomarkers	Validation and Advanced Development of Emerging Molecular Analysis Technologies for Cancer Research	RFA-CA-13-002 (R33) RFA-CA-13-004 (R33)	September 21, 2013
Biomarkers	Mitochondria in Cancer Epidemiology, Detection, Diagnosis and Prognosis	PA-11-073 (R01) PA-11-074 (R21)	January 08, 2014

Figure 30: DCP Funding Opportunities Page.

News

Twitter Feed: One participant mentioned the DCP twitter account and expected to see that content on the News page (Figure 31). Consider including a panel on the right side of the page with DCP's twitter feed.

Home	Major Programs	Research Groups	Clinical Trials	Funding	News and Events	About DCP
----------------------	--------------------------------	---------------------------------	---------------------------------	-------------------------	---------------------------------	---------------------------

News and Events Summary	<h2>Latest News</h2> <p>News about scientific advances in cancer prevention, program activities, and new projects are included here in NCI press releases and fact sheets, articles from the NCI Cancer Bulletin, and Clinical Trial News from the NCI website.</p> <table border="1"> <tr> <td>2013</td> <td>2012</td> <td>2011</td> <td>2010</td> </tr> </table> <p>Incidence of Ovarian Cancer Drops After Menopausal Hormone Use Declines ↗ (Posted May 08, 2013, Journal of Clinical Oncology)</p> <p>NIH Fiscal Policy for Grant Awards in FY 2013 Released ↗ (Posted May 08, 2013, NIH Notice)</p> <p>The U.S. Preventive Services Task Force (USPSTF) recommends that clinicians engage in shared decisionmaking with women at increased risk of breast cancer about medications to reduce their risk; Comment period open ↗ Review of Evidence Published. (Posted April 16, 2013, U.S. Preventive Services Task Force)</p> <p>Metformin: Can a Diabetes Drug Help Prevent Cancer? ↗ (Posted April 15, 2013, NCI Cancer Research Updates)</p> <p>NCI-funded CCOP study shows antidepressant drug relieves painful</p>	2013	2012	2011	2010
2013		2012	2011	2010	
Latest News					
News Archive					
DCP Meetings and Events					

Figure 31: News Page.

About DCP

Full Staff Directory Filters: Participants found the full staff listing in the About section (Figure 32) very helpful if they wanted to find contact information. However, the filters on the side did not stand out to them. Consider relabeling the filters “See Staff by Group” and include instructions for finding staff at the top of the page.

Home Major Programs Research Groups Clinical Trials Funding News and Events About DCP

[About DCP Summary](#)

Full Staff Directory

[Careers and Training](#)

Hide Filters

[Complete Listing \(127\)](#)

[Administrative Resource Center \(6\)](#)

[Associate Director for Clinical Research \(5\)](#)

Biometry Research Group (19)

[Breast and Gynecologic Cancers Research Group \(5\)](#)

[Cancer Biomarkers Research Group \(15\)](#)

Full DCP Staff Directory

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Biometry Research Group

Baker, Stuart G, ScD
Mathematical Statistician
Biometry Research Group
 ROOM: 5E638
 PHONE: (240) 276-7147
 E-MAIL: bakers@mail.nih.gov

Berger, Vance, PhD
Mathematical Statistician
Biometry Research Group
 ROOM: 5E628
 PHONE: (240) 276-7142
 E-MAIL: bergerv@mail.nih.gov

Corle, Donald, MS
Mathematical Statistician

Figure 32: Full Staff Directory with the Filters Open.

Overall Site

Site Organization: Overall, all participants thought the design for the DCP site was either about the same or easier to navigate than other government websites. (Also note that one other participant mentioned that they could not find “reimbursement info” or a link to it on the DCP site.)

Round 2 Usability Evaluations

Homepage

Audience of the Site: After exploring the site, some participants identified that the site was indeed not for the general public, but for researchers/professionals. However, they felt it still should include a way for “lost” patients/interested public to get to information more suited for them. None of the participants noticed the box on the homepage (see Figure 33) that would have the appropriate links for cancer patients. Visual styling will also help this information stand out appropriately. For example, a picture of a patient with a doctor could draw the attention of this group. Consider making this information more noticeable by placing it above the News section.

Also, one participant noted that internal NIH/NCI people and external researchers and physicians would not look for patient-oriented information here, as they would have other means of getting it.

National Cancer Institute
at the National Institutes of Health | www.cancer.gov

DCP Division of Cancer Prevention Home | Site Map | Contact DCP Search DCP

Home Major Programs Research Groups Clinical Trials Funding News and Events About DCP

The Division of Cancer Prevention (DCP) is the primary unit of the National Cancer Institute devoted to cancer prevention research. DCP provides funding and administrative support to clinical and laboratory researchers, multidisciplinary teams, and collaborative, research-based networks. [Read more in the About DCP section.](#)

DCP is comprised of ten Research Groups, which carry out research in the foundations of cancer prevention and at major cancer sites. Read more about the research groups in the [Research Groups](#) section. Additionally, there are several major programs that are supported by DCP on a division level. These programs include the Alliance of Glycobiologists, BETRNet, CCOP, EDRN, Consortia for Early Phase Prevention Trials, and the PREVENT Pre-Clinical Drug Program. More detail about these programs can be found in the [Major Programs](#) section.

News

05/24/2013 NCI Cancer Prevention Fellowship Program Open for Applications through August 25

05/21/2013 Help for Cancer Patients and Researchers Affected by Catastrophe
05/15/2013

Position Announcement
Seeking a Branch Chief to join National Cancer Institute, Nutritional Science Research Group

More News Stories in [News and Events](#)

Information for Cancer Patients:

[NCI's Cancer Prevention](#)

[Definition of Prevention](#)

[PDQ Summaries: Prevention](#)

Figure 33: Information for Cancer Patients on the DCP Homepage.

Major Programs

Major Programs Navigation: Some participants were not sure if the links on the left and the links in the accordions went to the same page, as seen in Figure 34. Others did not exhibit any problems with this navigation approach, and some even commented that it was helpful.

The screenshot shows a website interface for 'Major DCP Programs and Research Networks: Summary'. At the top, there is a navigation bar with buttons for 'Home', 'Major Programs' (selected), 'Research Groups', 'Clinical Trials', 'Funding', 'News and Events', and 'About DCP'. On the left side, there is a 'Major Programs Summary' sidebar containing several blue hyperlinks: 'Alliance of Glycobiologists for the Detection of Cancer' (circled in red), 'Barrett's Esophagus Translational Research Network (BETRNet)', 'Community Clinical Oncology Program', 'Early Detection Research Network', 'Phase 0/II Cancer Prevention Clinical Trials Program', and 'PREVENT Cancer Preclinical Drug Development Program'. The main content area features a title 'Major DCP Programs and Research Networks: Summary' followed by a paragraph: 'What are "Major Programs?" The Division of Cancer Prevention supports a number of major programs. These programs consist of major scientific collaborations and research networks at more than 100 sites across the United States, investigator-initiated grants, and specialized resources for researchers. Some of our research groups support a number of major programs; others support one major program.' Below this is a section titled 'Map of Research Networks and Program Locations' which contains a placeholder image of a landscape with a green sun and blue mountains, and a list of programs with unchecked checkboxes: 'Alliance of Glycobiologists', 'Barrett's Esophagus Translational Research Network (BETRNet)', 'Community Clinical Oncology Program', 'Early Detection Research Network', 'Phase 0/II Cancer Prevention Clinical Trials Program', and 'PREVENT Cancer Preclinical Drug Development Program'. At the bottom, there is a 'Program Descriptions' section with an accordion for the 'Alliance of Glycobiologists for the Detection of Cancer' program. The description text reads: 'Tumor Glycomics Laboratories reveal cancer-related dynamics of carbohydrates for development of validated clinical biomarkers for early detection. Read more on the Alliance of Glycobiologists page.' The link 'Alliance of Glycobiologists' is circled in red.

Figure 34: Two Ways to Navigate to a Major Program Page from the Summary Page.

Major Program Projects: Some participants were able to find the associated research groups for a major program (circled in Figure 35). Others did not notice this information until it was pointed out to them. Consider formatting the text to help this information stand out. For example, a subheading (“Associated Research Groups”) may draw user’s attention.

Home Major Programs Research Groups Clinical Trials Funding News and Events About DCP

[Major Programs Summary](#)

Alliance of Glycobiologists for the Detection of Cancer

The Alliance of Glycobiologists for Detection of Cancer is a consortium of eight Tumor Glycomics Laboratories and research partners. The Alliance is working to reveal the cancer-related dynamics of complex carbohydrates, and to develop new validated, clinical biomarkers for early cancer detection.

By combining resources and expertise, the Alliance brings an unrivaled strength to this emerging field. Here you will find publications, recent news and media coverage, upcoming meetings and events, contact information and scientific resources from Alliance members.

The mission of the Alliance is to study structure and function of glycans in relation to cancer development towards developing clinically useful biomarkers for the early detection of cancer by using a variety of approaches and technologies. This charge also requires extensive collaborations across institutions with different skills and facilities to accelerate glycan-based biomarkers to the forefront of NCI's efforts to detect and diagnose cancer at early stages.

The Alliance is managed by the Early Detection and the Cancer Biomarkers research groups. A list of the research group's projects and personnel can be found on the [Early Detection Research Group](#) and the [Cancer Biomarkers Research Group](#) pages within the [Research Groups](#) section of the DCP website.

[More information on the external website for the Alliance of Glycobiologists.](#)

[Barrett's Esophagus Translational Research Network \(BETRNet\)](#)

[Community Clinical Oncology Program](#)

[Early Detection Research Network](#)

[Phase 0/III Cancer Prevention Clinical Trials Program](#)

[PREVENT Cancer Preclinical Drug Development Program](#)

Figure 35: Reference to Research Groups from the Major Programs Page.

Relationship Between Major Programs and Research Groups: When asked about the relationship between Major Programs and Research Groups, most participants could identify that there was some kind of hierarchy, but were not correctly able to tell from the information on the page.

Home Major Programs Research Groups Clinical Trials Funding News and Events About DCP

Major DCP Programs and Research Networks: Summary

What are "Major Programs?" The Division of Cancer Prevention supports a number of major programs. These programs consist of major scientific collaborations and research networks at more than 100 sites across the United States, investigator-initiated grants, and specialized resources for researchers. Some of our research groups support a number of major programs; others support one major program.

Home Major Programs Research Groups Clinical Trials Funding News and Events About DCP

Research Groups Summary

(Groups by Foundations of Prevention)

[Biometry](#)

[Cancer Biomarkers](#)

[Chemopreventative Agent Development](#)

[Community Clinical Oncology Program](#)

Research Group Activities and Areas

The 10 DCP Research Groups promote and support a vital portfolio of cancer prevention grants and contracts, and also conduct original research. Activities span clinical and laboratory research, multidisciplinary teams, and multi-site networks. Areas focus on cancers of the major organ systems, biometry, cancer biomarkers, chemopreventative agent development, community oncology clinical trials, early detection, and nutritional science.

Figure 36: Descriptive Text on the Major Programs and Research Groups Summary Pages.

Research Groups

Staff Listing on Research Groups: Participants were shown three options for how staff information was shown for research groups. Example “One” (seen in Figure 37) shows staff contact information directly on the page. Example “Two” (seen in Figure 38) example contains the same information, but in an accordion widget. Example “Three” (seen in Figure 39) provides links with a dotted underline that, when clicked, open a lightbox with information from the top part of the staff bio page. Most participants preferred Example “One” with contact information listed directly on the page. If there are many staff members at a research group, the accordion approach might be best in order to avoid a very long page. Additionally, the “full bio” link on Example 1 opened in a new (smaller) window to avoid navigation issues (the bio page would have navigation back to the Full Staff Directory in the About section).



Staff [\(example 2\)](#) [\(example 3\)](#)

See contact info, room numbers, research interests and more on the [Full Staff Directory](#) in the [About DCP](#) section.

Dan Boring, RPh, PhD
Email: boringd@mail.nih.gov Phone: (240) 276-7094
[See full bio](#)

Barbara Dunn, MD PhD
Email: dunnb@mail.nih.gov Phone: (240) 276-7093
[See full bio](#)

Ronald Lubet, PhD
Email: lubetr@mail.nih.gov Phone: (240) 276-7099

Figure 37: Example "One" of Staff List Options.

Staff [\(example 1\)](#) [\(example 3\)](#)

See contact info, room numbers, research interests and more on the [Full Staff Directory](#) in the [About DCP](#) section.

▷ Boring, Dan, RPh, PhD
▷ Dunn, Barbara, MD PhD
▷ Lubet, Ronald, PhD
▷ Malone, Winfred, PhD, MPH
▷ Redoff, Marjorie, MD

Figure 38: Example "Two" of Staff List Options.

Staff [\(example 1\)](#) [\(example 2\)](#)

See contact info, room numbers, research interests and more on the [Full Staff Directory](#) in the [About DCP](#) section.

[Dan Boring, RPh, PhD](#) →

[Barbara Dunn, MD PhD](#)

[Ronald Lubet, PhD](#)

[Winfred Malone, PhD, MPH](#)

See contact info, room numbers, research interests and more on the [Full Staff Directory](#) close X

Boring, Dan, RPh, PhD

Chemopreventive Agent Development Research Group

LOCATION Division of Cancer Prevention
National Cancer Institute
9609 Medical Center Drive, Room 5E410
Rockville, MD 20850

PHONE (240) 276-7094
FAX (240) 276-0000
E-MAIL boringd@mail.nih.gov



[Philip C. Proxok, PhD](#)

Figure 39: Example "Three" of Staff List Options.

One participant mentioned that it was difficult to tell whether staff members were internal or external to NCI without seeing some kind of indication (like an e-mail, in the alternate staff Example "One" in Figure 37). Consider using an asterisk and footnote to indicate external employees.

Research Groups Data: One researcher participant expected to find more data for each of the research groups. When shown the Repository for Nutritional Sciences on the Resources page (seen in Figure 40), he felt that it belonged in a separate page as it was different from the other

types of “resources.” Consider adding a “Data” or “Data Repositories” page for any research groups with such content.

[Nutritional Sciences](#)
• [Funding and Fellowships](#)
• [Programs and Projects](#)
• [Meetings and Events](#)
• [Publications](#)
• **Resources**

(Groups by Organ System)
[Breast and Gynecologic Cancers](#)
[Gastrointestinal and Other Cancers](#)
[Lung and Upper Aerodigestive Cancers](#)
[Prostate and Urologic Cancers](#)

Older issues of the newsletter can be found in the Nutritional Sciences [Publications](#) page under the Newsletters section.

Listserv
[Subscribe](#) to the NUTRITIONCANCER listserv to stay updated on news and events for the Nutritional Sciences Research Group.

NCI Fact Sheets
[NCI Fact Sheets: Diet and Nutrition](#)
Information on the latest cancer research related to diet and nutrition.

Evidence Based Reviews
[Evidence Based Reviews on Nutrition](#)
The Food and Nutrition Board addresses issues of safety, quality, and adequacy of the food supply; establishes principles and guidelines of adequate dietary intake; and renders authoritative judgments on the relationships among food intake, nutrition, and health.

Questionnaires
[Dietary History Questionnaire](#)
This is the current list of the 176 nutrients, dietary constituents, and food groups available in Diet*Calc for DHQ II.

Repositories
[Reference Standard Chemical Carcinogen Repository](#)
Midwest Research Institute (MRI) and Chemsyn Science Laboratories (CSL) to operate repositories which supply standard reference - grade compounds for cancer research.

Figure 40: Data Repository on the Resources Page for the Nutritional Sciences Research Group.

Trials Associated with a Research Group: One participant was curious to see if research groups at DCP were related to clinical trials by visiting each of these sections on the site. He noticed the information on a few research group pages (The Breast and Gynecologic Group in Figure 41 and the Early Detection Research Group in Figure 42) had a different format and it was unclear when the studies took place (or if they were in progress). Just as there is information on how Major Programs are related to Research Groups, this participant thought there should be information on how Research Groups are related to Clinical Trials. He assumed a hierarchy from the order of the tabs. Consider providing information for current and past clinical trials for each research group for consistency.

Home Major Programs **Research Groups** Clinical Trials Funding News and Events About DCP

[Research Groups Summary](#)
(Groups by Foundations of Prevention)

[Biometry](#)
[Cancer Biomarkers](#)
[Chemopreventative Agent Development](#)
[Community Clinical Oncology Program](#)
[Early Detection](#)
[Nutritional Sciences](#)

(Groups by Organ System)

[Breast and Gynecologic Cancers](#)
* [Funding and Fellowships](#)
* [Programs and Projects](#)
* [Meetings and Events](#)
* [Publications](#)

[Gastrointestinal and Other](#)

Breast and Gynecological Cancers Research Group: Programs and Projects

Associated Programs

The Breast and Gynecological Cancers Research Group is not currently involved in supporting any division-wide major programs. For a list of major programs and research networks (including a map of the location of research networks), see the [Major Programs](#) section.

Projects

The Breast and Gynecologic Research Group manages the following Clinical Trials:

Breast Cancer Clinical Trials

Principal Investigator	Funding Mechanism	Title of Award	Chemopreventative Agent
Carol Fabian, MD	R01	Breast Cancer Prevention by Letrozole in High Risk Women NCT00579826	Letrozole
Melanie Palomares, MD City of Hope, Beckman Research	R01	Low Dose Tamoxifen in Hodgkin Lymphoma Survivors for Breast Cancer Risk Reduction NCT01406026	Tamoxifen

Figure 41: Clinical Trials Listed as Projects for the Breast and Gynecologic Cancers Research Group.

Home Major Programs **Research Groups** Clinical Trials Funding News and Events About DCP

[Research Groups Summary](#)
(Groups by Foundations of Prevention)

[Biometry](#)
[Cancer Biomarkers](#)
[Chemopreventative Agent Development](#)
[Community Clinical Oncology Program](#)
[Early Detection](#)
* [Funding and Fellowships](#)
* [Programs and Projects](#)
* [Publications](#)

[Nutritional Sciences](#)

(Groups by Organ System)

[Breast and Gynecologic Cancers](#)

Early Detection Research Group: Programs

Associated Programs

The Cancer Biomarkers Research Group supports the [Early Detection Research Network](#) (EDRN), which is an initiative of the National Cancer Institute (NCI). This research network focuses on discovery and validation of biomarkers for non-invasive, early detection of cancer and unites clinical and basic scientists so that discovery is clinically driven, yet balanced with a systematic approach to validation. To learn more about DCP's involvement with this program, check out the [Major Programs](#) section of the DCP website.

Projects

The Cancer Biomarkers Research Group supports the following large-scale studies, whose details can be found on the [Featured Clinical Trials](#) page of the [Clinical Trials](#) section of the DCP website:

- [National Lung Screening Trial \(NLST/LSS\)](#)
- [Lung Screening Feasibility Study \(LSS\)](#) (coming soon)
- [Prostate, Lung, Colorectal and Ovarian Cancer Screening Trial \(PLCO\)](#)
- [International Prostate Screening Trials Evaluation Group \(IPSTEG\)](#) (coming soon)

Figure 42: Clinical Trials Listed as Projects for the Breast and Gynecologic Cancers Research Group.

Recently Opened Trials: Participants were able to find the detailed information on the Recently Opened Trials page (Figure 43) that was anticipated from participants in the previous round. However, participants from this round expected to see the dates the trials were opened and if they were accruing participants from this page (ie. “How recent is ‘recent?’”). Consider adding the trial’s opening dates and accrual information and list trials on this page in chronological order from most (top) to least recent (bottom).

Home	Major Programs	Research Groups	Clinical Trials	Funding	News and Events	About DCP
----------------------	--------------------------------	---------------------------------	---------------------------------	-------------------------	---------------------------------	---------------------------

<p>Clinical Trials Summary</p> <p>Recently Opened Trials</p> <p>New Study Designs</p> <p>Major Trials</p> <p>Search NCI Clinical Trials</p> <hr/> <p>Clinical Trials Management</p>	<h2 style="margin-top: 0;">Recently Opened Trials</h2> <p>These are recently opened trials. Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.</p> <h3>Rosuvastatin in Treating Patients With Stage I or Stage II Colon Cancer That Was Removed By Surgery (NSABP P-5)</h3> <p>Patients diagnosed with stage I or II colon cancer who have completed their initial therapy may take part in this trial. Participants are randomly assigned to take either rosuvastatin (Crestor) or a placebo pill daily for 5 years and will undergo complete colonoscopies within 180 days before randomization, and at 1, 3, and 5 years afterward. Doctors will follow the participants for the development of adenomatous polyps, the incidence of metachronous colorectal cancers, and the recurrence of their primary colon cancer.</p> <p>Trial NSABP P-5 Protocol on NCI's Clinical Trials PDQ NCI Featured Trial Summary for NSABP P-5 Can We Prevent Colon Cancer? An Overview of NSABP Protocol P-5 (webinar info)</p> <h3>Preventing High-Risk Adenomas and Second Cancers in Colon Cancer Survivors (S0820)</h3> <p>In this trial, people who have undergone curative surgery for stage 0-3 colon cancer, with or without adjuvant chemotherapy, will be randomly assigned to take sulindac and a placebo, eformithine and a placebo, both sulindac and eformithine, or two placebo pills for 36 months. Doctors will closely monitor all trial participants throughout the study to detect the recurrence of high-risk adenomas or the development of new colon or rectal cancers.</p> <p>Trial S0820 Protocol on NCI's Clinical Trials PDQ Featured Clinical Trial Summary for S0820 Information for Potential Participants (from SWOG)</p>
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Figure 43: Recently Opened Trials Page.

New Study Designs: Similar to the Recently Opened Trials page, participants found all information they needed for the New Study Designs page (Figure 44) except for the trial opening date (ie. “How new is ‘new?’”). Consider adding the opening dates for the trials and list them from (top to bottom:) most to least recent.

Clinical Trials Summary	<h2>New Study Designs</h2>
Recently Opened Trials	<p>The Division of Cancer Prevention is expanding clinical research beyond standard trial designs to find interventions that may play a role in more than one prevalent disease.</p>
New Study Designs	<h3>Using Non-Cancer Trials to Find Cancer Prevention Signals</h3>
Major Trials	<p>Diabetes Prevention Program Outcome Study (DPPOS) Collaboration with the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)</p>
Search NCI Clinical Trials	<p>NCI is looking at this cohort study to examine if metformin or lifestyle intervention used to prevent development of diabetes in a population at risk of the disease, can also modify cancer incidence, especially in obesity-related cancers (breast, colon & rectum, endometrium, pancreas, esophagus, gall bladder, and kidney).</p>
<hr/>	<p>Metformin: Can a Diabetes Drug Help Prevent Cancer? </p> <p>(Cancer Research Updates from NCI)</p>
Clinical Trials Management	<p>Diabetes Prevention Program Outcomes Study (DPPOS) Questions & Answers from NIDDK </p>
	<p>Aspirin in Reducing Events in Elderly (ASPREE) Study Collaboration with the National Institute on Aging (NIA)</p>
	<p>Aspirin in Reducing Events in the Elderly (ASPREE) is a Phase III double-blind, randomized, placebo-controlled primary prevention trial designed to assess whether daily active treatment of 100 mg enteric coated aspirin will extend the duration of</p>

Figure 44: New Study Designs Page.

Major Trials Detail: Participants liked the breadth of information available for the Major Trials (Figure 45). However, those that went to the ASCUS/LSIL Triage Study for Cervical Cancer (ALTS) or Prostate, Lung, Colorectal and Ovarian Cancer Screening Trial (PLCO) trials thought the tabbed information looked a bit small and “too nested.” Having tabs within an accordion does not go against any best practices and participants did not encounter any usability issues when interacting with the site. The other major trials besides ALTS and PLCO do not have the same issue, as their additional information pages link to websites external to DCP. Users may get confused if the navigation for major trials with DCP links has the same format as those trials with external links.

Consider giving each major trial its own sub-level page if avoiding tabs within an accordion is of visual interest.

Home	Major Programs	Research Groups	Clinical Trials	Funding	News and Events	About DCP
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[Clinical Trials Summary](#)

[Recently Opened Trials](#)

[New Study Designs](#)

Major Trials

[Search NCI Clinical Trials](#)

[Clinical Trials Management](#)

Major Trials

The studies listed below represent the first major clinical trials to evaluate risk reduction for people at high risk of breast, prostate, lung, colorectal, ovarian, cervical, and lung cancer. Analysis of the data gathered from these large trials continues to contribute valuable understanding about related issues, including screening, patient-reported symptoms, quality of life, nutrient impact, population/ethnicity differences, study design and implementation, and many others.

- ▷ National Lung Screening Trial (NLST) [2002-2010]
- ▷ Selenium and Vitamin E Cancer Prevention Trial (SELECT) [2001-2008]
- ▷ Study of Tamoxifen and Raloxifene (STAR) [1999-2006]
- ▽ ASCUS / LSIL Triage Study for Cervical Cancer (ALTS) [1996-2001]

The ASCUS/LSIL Triage Study for Cervical Cancer (ALTS) is a clinical trial to find the best way to help women and their doctors decide what to do about the mildly abnormal and very common Pap test results known as ASCUS and LSIL. About three million women in the United States are diagnosed with ASCUS and LSIL each year. Organized and funded by the National Cancer Institute, ALTS included more than 5,000 women. It began in November 1996 and concluded at the end of 2000 showing that the role of HPV testing in identifying women at high risk for cervical cancer.

Trial Design	Study Centers	Main Findings	Publications	Resources
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Approximately 55 million Pap smears are performed each year in the United States. The vast majority of results are negative (no abnormality identified) but about 5% to 8% are reported as abnormal. Most low-grade changes

Figure 45: Major Trials Summary Page with ALTS Trial Accordion Expanded.

Funding

DCP Funding Opportunities: Participants in this round were also satisfied with the DCP Funding Opportunities (seen in Figure 46). There were no comments about the new label “Research Category.” However, participants expressed their desire to sort the table (by date) and to be sure that the page was kept updated. Participants wanted the table to show new opportunities as they became available and expired opportunities to be removed.

Home Major Programs Research Groups Clinical Trials **Funding** News and Events About DCP

[Funding Summary](#)

DCP Funding Opportunities

These are DCP-supported funding opportunities, organized by category of funding and listed by date of expiry. For information on how to apply and other information, check the [Funding Resources](#) page.

Research Category	Title	Announcement #	Expiration Date
Biomarkers	Early-Stage Innovative Molecular Analysis Technology Development for Cancer Research	RFA-CA-13-001 (R21) RFA-CA-13-003 (R21)	September 21, 2013
Biomarkers	Validation and Advanced Development of Emerging Molecular Analysis Technologies for Cancer Research	RFA-CA-13-002 (R33) RFA-CA-13-004 (R33)	September 21, 2013
Biomarkers	Mitochondria in Cancer	PA-11-073 (R01)	January 08, 2014

Figure 46: DCP Funding Opportunities Page.

News and Events

Twitter Feed: The twitter feed was seen as a good addition to the Latest News page (Figure 47). Social media icons could also be shown at the top right corner of the homepage.

Home Major Programs Research Groups Clinical Trials Funding **News and Events** About DCP

[News and Events Summary](#)

Latest News

News about scientific advances in cancer prevention, program activities, and new projects are included here in NCI press releases and fact sheets, articles from the NCI Cancer Bulletin, and Clinical Trial News from the NCI website.

2013 2012 2011 2010

[Incidence of Ovarian Cancer Drops After Menopausal Hormone Use Declines](#) (Posted May 08, 2013, Journal of Clinical Oncology)

[NIH Fiscal Policy for Grant Awards in FY 2013 Released](#) (Posted May 08, 2013, NIH Notice)

[The U.S. Preventive Services Task Force \(USPSTF\) recommends that clinicians engage in shared decisionmaking with women at increased risk of breast cancer about medications to reduce their risk; Comment period open](#) Review of Evidence Published. (Posted April 16, 2013, U.S. Preventive Services Task Force)

[Metformin: Can a Diabetes Drug Help Prevent Cancer?](#)

Twitter Feed

Figure 47: Latest News Page with Area for the Twitter Feed.

Meetings and Events: Some participants noted that it was unclear whether the meetings and events were open to individuals outside of DCP while looking at the Meetings and Events page (Figure 48). Consider indicating what types of people (researchers, general public, NIH staff) are able to attend a meeting on the page with the meeting details.

Meetings and Events

News about scientific advances in cancer prevention, program activities, and new projects are included here in NCI press releases and fact sheets, articles from the NCI Cancer Bulletin, and Clinical Trial News from the NCI website.

2013 2012 2011 2010 Archived Events

March 19, 2013: Susan Taylor Mayne, PhD, presents Stars in Nutrition & Cancer – [Micronutrients and Cancer Prevention: A Complex World](#) [Alternate](#)

March 13-15, 2013: [8th Early Detection Research Network \(EDRN\) Scientific Workshop](#), Bethesda, MD

March 11, 2013: David Sidransky, MD presents Excellence in Molecular Diagnostics Lecture – [Molecular Markers to Personalize Cancer Detection and Therapy](#), The NIH Lister Hill Auditorium (Building 38A), Bethesda, MD

January 24, 2013: Frontiers in Nutrition and Cancer Prevention: Online CME Series will present [Exploring the Microbiome of Cancer Prevention: A Closer Look at Probiotics, Prebiotics, and Synbiotics](#)

Figure 48: Meetings and Events Page.

About DCP

Organization Chart: The first two participants saw a version of the organization chart on the About DCP Summary page with blue text (Figure 49). The color gave the appearance of linked text, and participants tried clicking the names. They said they expected to get bio information from the links.

In terms of navigation, it may be difficult to link to staff bios from this page. If the organization chart is shown in a lightbox (for greater detail), a lightbox for the staff bio cannot be used. Opening a new window would work. Using this chart for navigation to other parts of the site would not be advised, since it would jump the user to a different section without “warning.” Consider keeping black font if the organization chart is to be used for reference only.

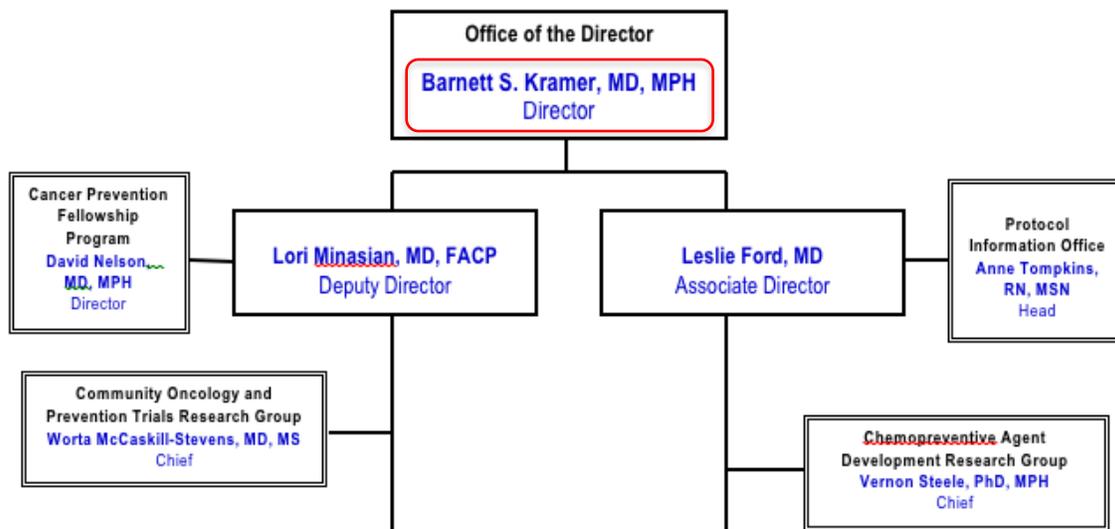


Figure 49: Example of Organization Chart with Blue Text.

Participants had no trouble clicking on the thumbnail to access the detailed version of the organization chart (Figure 50). The font was changed to black to avoid any confusion about the functionality of the image within the context of the mockup (it was not linked to any detailed information). Participants said it would be useful to people very familiar with, or who work within NCI.

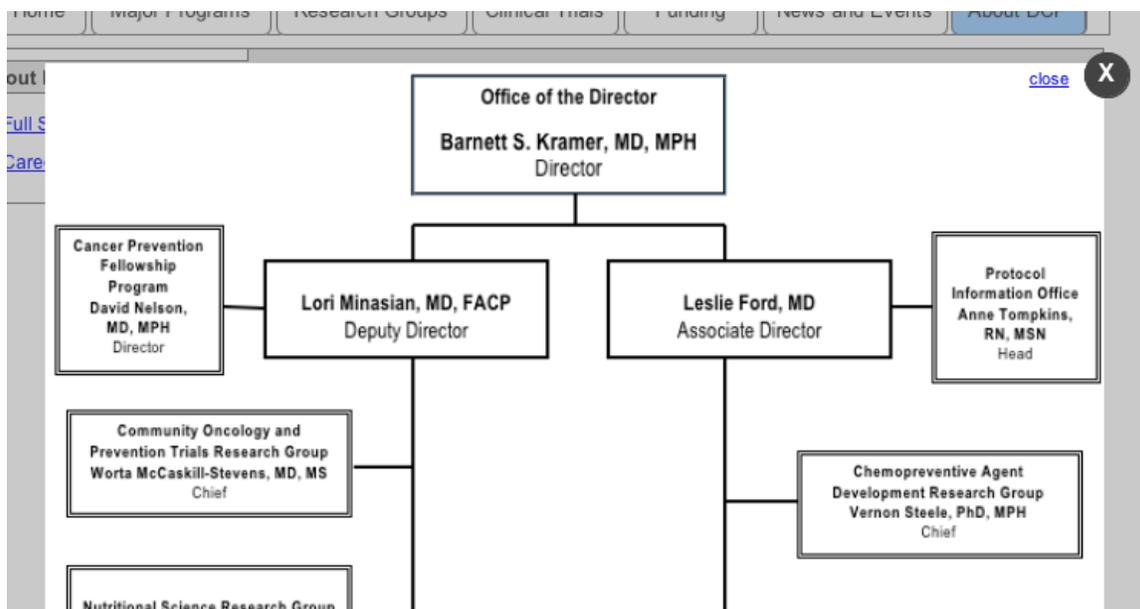


Figure 50: Lightboxed Large Version of the Organization Chart.

Full Staff Directory Filters: Although the staff filter was relabeled, about half of the participants in this round still had problems noticing it in the Full Staff Directory page (Figure

51). Consider including instructions for using the filter at the top of the page. A drop down menu placed above the alphabet could also be used to select a group from the list. This could have also been missed by participants due to the nature of the mockup and the context of the evaluation.

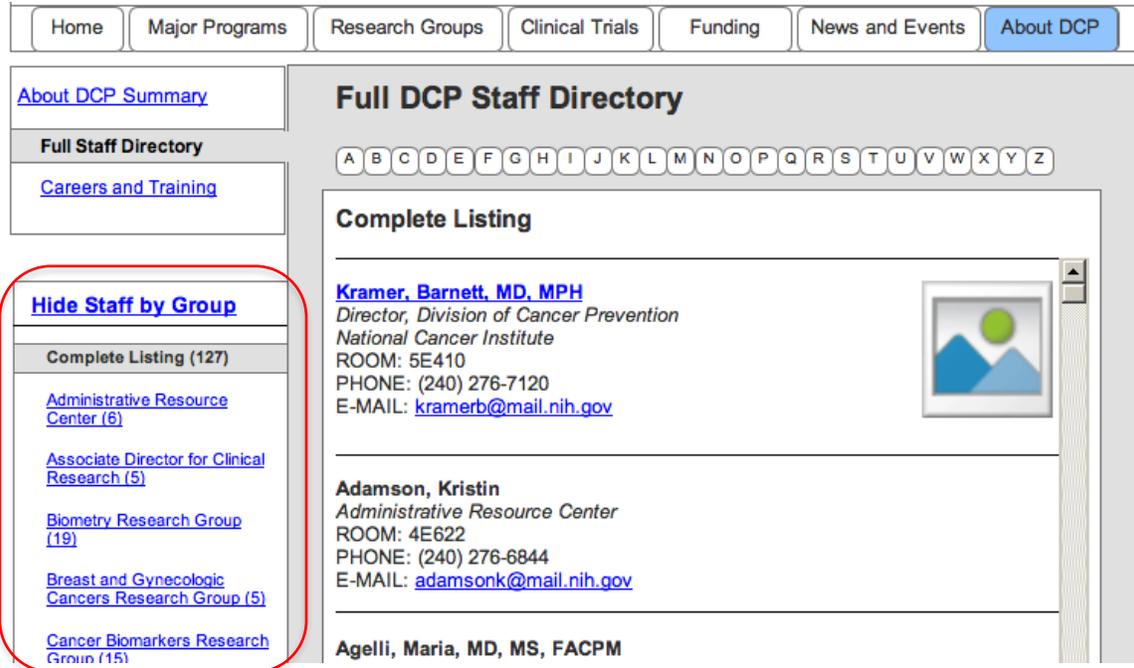


Figure 51: Full Staff Directory Page with Relabled Groups Filter.

Overall Site

Ease of Navigation: Consistent with the previous round of evaluations, all participants for the second round thought the design for the DCP site was either about the same or easier to navigate than other government websites.

Conclusion

Analysis of both the live DCP website and the mockup provided valuable insight on how users and potential users find and interpret information on cancer prevention. The following main points summarize the insight from the usability evaluations:

- A clear distinction should be made between the site sections (especially Major Programs and the Research Groups) in order for people external to DCP to understand how the division functions.
- Navigation should be obvious and explicit, especially when transitioning to another part of the DCP site or to a resource outside the DCP site (whether it is a .gov site or another).
- Consistent display of similar information between research groups allows for better understanding of the material.
- Easily managed staff listings and contact information is useful, especially to researchers.

Appendix A: Facilitator's Guide for Usability Evaluations

[Note: The purpose of this document is to guide the moderator. The questions and tasks contained herein may not be asked as written. The facilitator often draws on participant comments and the natural flow of the testing process to determine the flow of the session. While the facilitator will try to follow the order of the guide, many times tasks will come up ahead of time or in different order. The facilitator may allow the order of the tasks to change in order to let the process flow naturally.]

Pre-Test

[Administer the informed consent.]

Introduction

Thank you for agreeing to participate in this study.

NCI's Division of Cancer Prevention (DCP) is looking to improve their website, so today we are conducting a usability evaluation of the design. As a participant, you will explore the website and be given a set of tasks to do.

As we go through the tasks, feel free to offer any comments or suggestions that occur to you. We are looking for things about the design that are working well as well as things that could be improved. There are two important things you should keep in mind while you work with the website:

First, I did not create the design so you can't hurt my feelings with any criticisms you might have. If there are problems with the design I would like to discuss them with you to see if we can find a way to improve the design.

Second, we are evaluating the website and not you, so you cannot make any mistakes. The site is supposed to be intuitive and easy to use. If it isn't, that's a problem with the website – not with you.

I'd like you to know that there are some observers with us today helping me by taking notes, but don't worry about them. You and I will work on this together and they'll just watch and listen.

Do you have any questions for me before we get started?

Background

We have invited persons with a variety of backgrounds to participate in this activity so I'd like you to tell me:

Where do you work and what is your role there?

[Grantee Researchers only]

What type of research do you do?

What type of grant are you working on?

[Research Staff only]

What type of research do you do?

How long have you been doing this research?

What type of information do you usually look for on the DCP website? [Probe for information on research groups, CCOPs, information topics, etc. Note P's answers to guide their exploration of the website during the tasks.]

Tasks

You mentioned previously looking at {topic} on the DCP website. Can you show me how you accessed that information? [Note the areas where the P goes and what information they access. Repeat for each topic they mentioned earlier.]

You mentioned before that you were interested in {topic}. Does this website have information on this topic? Let's explore this area. [Direct P to explore the area with the information.]

Are there any other areas on the page that interest you? [Explore all additional areas of the site the P mentions. Direct P to look further if P did not notice an area of the site that has information related to the interests they mentioned earlier.]

[If the participant has not explored all areas of the site:] There are a few other areas of the website. Can you describe the other areas of the website and think about the content that might be there and the people who would be interested in that content? [After P describes one area:] Let's look at the content now. How does this content compare to what you expected to find? [Repeat with all other major parts of the site.]

Follow-up Questions

I'd like you to reflect on the things you liked and didn't like about the website. What are three things you liked? What are three things you disliked?

How easy or difficult was it for you to find out what was on the DCP website?

Were there any confusing links or headings on the DCP website that we didn't discuss earlier?

Was there anything missing – any information or topics that you expected to see but didn't?

Is there anything about the organization of the web pages that you would change?

Wrap up

OK, we're done. Do you have any further questions or comments?

Thanks again for your participation.

Appendix B: Email for Participant Request

OMB No.: 0925-0642-21 Expiration Date: 9/30/14

Collection of this information is authorized by The Public Health Service Act, Section 411 (42 USC 285a). Rights of study participants are protected by The Privacy Act of 1974. Participation is voluntary, and there are no penalties for not participating or withdrawing from the study at any time. Refusal to participate will not affect your benefits in any way. The information collected in this study will be kept private under the Privacy Act. Names and other identifiers will not appear in any report of the study. Information provided will be combined for all study participants and reported as summaries. You are being contacted by email so that we can find volunteers to help improve the website.

Public reporting burden for this collection of information is estimated to average 5 minutes (for the email) per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. **An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.** Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: NIH, Project Clearance Branch, 6705 Rockledge Drive, MSC 7974, Bethesda, MD 20892-7974, ATTN: PRA (0925-0642). Do not return the completed form to this address.

Dear [Name],

The National Cancer Institute (NCI) is seeking participants for a usability evaluation for the Division of Cancer Prevention (DCP) website. Participants will explore the current website design and give feedback on its ease of use. Your input will contribute to the site's final redesign and usability. SECRET We would like to set up times to meet (electronically via internet and phone) with you for this discussion and would need about 60 minutes of your time. The sessions will take place [day], [date] through [day][date].

Participants:

- must have some level of familiarity with DCP
- must also have access to a computer, Internet connection, and a telephone or computer microphone and speakers at the time of the session.

If you can help, please reply to this email and tell us your **phone number**. Tell us **what times would be convenient for you** during the following time periods:

Phone Number _____

Selection of Remote Times:

Date 1, Day, from Hour 1- Hour 2 in Eastern Time _____

Date 2, Day, from Hour 1- Hour 2 in Eastern Time _____

Date 3, Day, from Hour 1- Hour 2 in Eastern Time _____

Date 4, Day, from Hour 1- Hour 2 in Eastern Time _____

Date 5, Day, from Hour 1- Hour 2 in Eastern Time _____

Etc.

If you would be willing to participate, would like additional information, or have questions, please contact Danielle Smith from User Centered Design, the contractor assisting NCI with this project, at dsmith@user-centereddesign.com.

Appendix C: Follow-up Email Screener

OMB No.: 0925-0642-21 Expiration Date: 9/30/14

Collection of this information is authorized by The Public Health Service Act, Section 411 (42 USC 285a). Rights of study participants are protected by The Privacy Act of 1974. Participation is voluntary, and there are no penalties for not participating or withdrawing from the study at any time. Refusal to participate will not affect your benefits in any way. The information collected in this study will be kept private under the Privacy Act. Names and other identifiers will not appear in any report of the study. Information provided will be combined for all study participants and reported as summaries. You are being contacted by email so that we can find volunteers to help improve the website.

Public reporting burden for this collection of information is estimated to average 5 minutes (for the email) per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. **An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.** Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: NIH, Project Clearance Branch, 6705 Rockledge Drive, MSC 7974, Bethesda, MD 20892-7974, ATTN: PRA (0925-0642). Do not return the completed form to this address.

Hi, thank you for responding to our earlier email. We would like to know just a bit about your experience with the Division of Cancer Prevention website.

[These questions are to be asked to understand the individual's experience with the website.]

How long have you been using the Division of Cancer Prevention website?

- A month or less
- Several months
- Around half a year
- About a year
- Between one and three years
- Over three years

When was the last time you used the website? _____

The following questions are to set up a specific type of usability test and the date and time for it.

In the email that you returned to us you indicated that [date and times] would be convenient for you to be available to test the website. Can we set up a specific time now?

Later you will receive a GoToMeeting invitation from us giving you contact information so we can conduct a remote usability test.

We look forward to meeting you remotely at that time.

Appendix D: Verbal Informed Consent

OMB No.: 0925-0642-21 Expiration Date: 9/30/14

Collection of this information is authorized by The Public Health Service Act, Section 411 (42 USC 285a). Rights of study participants are protected by The Privacy Act of 1974. Participation is voluntary, and there are no penalties for not participating or withdrawing from the study at any time. Refusal to participate will not affect your benefits in any way. The information collected in this study will be kept private under the Privacy Act. Names and other identifiers will not appear in any report of the study. Information provided will be combined for all study participants and reported as summaries. You are being contacted by email so that we can find volunteers to help improve the website.

Public reporting burden for this collection of information is estimated to average 60 minutes (for the informed consent and usability evaluation) per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. **An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.** Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: NIH, Project Clearance Branch, 6705 Rockledge Drive, MSC 7974, Bethesda, MD 20892-7974, ATTN: PRA (0925-0642). Do not return the completed form to this address.

As part of this research, I need to ask you to formally agree to this usability evaluation.

As part of a research project for the National Cancer Institute's Division of Cancer Prevention website, we are seeking to evaluate the appropriateness and usability of the current design. We are asking a total of about 21 individuals such as yourself to participate in an evaluation of the DCP website. We are asking you for about 60 minutes of your time today plus the time you've already spent responding to phone calls and/or emails.

We won't be asking anything personal and identifying information will not be shared. Any findings will be reported in aggregated form.

Your participation is voluntary, and if you choose not to participate it will not affect your relationship with the National Cancer Institute. You may ask questions at any time during the interview. You are also free to stop the session at any time without penalty and without any questions being asked of you. Do you have any questions?

If you agree to participate, you are saying that you understand what I've told you and that any questions you have were satisfactorily answered. You are also saying that you are at least 18 years old, and that you voluntarily agree to participate. Is this correct?

Appendix E: Written Informed Consent

OMB No.: 0925-0642-21 Expiration Date: 9/30/14

Collection of this information is authorized by The Public Health Service Act, Section 411 (42 USC 285a). Rights of study participants are protected by The Privacy Act of 1974. Participation is voluntary, and there are no penalties for not participating or withdrawing from the study at any time. Refusal to participate will not affect your benefits in any way. The information collected in this study will be kept private under the Privacy Act. Names and other identifiers will not appear in any report of the study. Information provided will be combined for all study participants and reported as summaries. You are being contacted by email so that we can find volunteers to help improve the website.

Public reporting burden for this collection of information is estimated to average 60 minutes (for the informed consent and usability evaluation) per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. **An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.** Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: NIH, Project Clearance Branch, 6705 Rockledge Drive, MSC 7974, Bethesda, MD 20892-7974, ATTN: PRA (0925-0642). Do not return the completed form to this address.

Identification of Project

Usability Testing of the Division of Cancer Prevention Website

Statement of Age of Subject

I state that I am at least 18 years of age, in good physical health, and wish to participate in a program of research being conducted by the Division of Cancer Prevention (DCP) at the National Cancer Institute, Bethesda, MD 20742.

Purpose

This evaluation will help to determine the usability and effectiveness of DCP website, to ensure that it provides relevant, easy-to-access content for grantee researchers, research staff, and NCI, NIH and DHHS staff in a manner that is compliant with best practice guidelines and standards, and improves the ability of the users to locate information and navigate the website more easily.

Procedures

Participants will perform information-seeking tasks on existing or proposed web pages or other materials and be asked about their thoughts and opinions related to how information is presented on the DCP website (<http://prevention.cancer.gov/>). The total time

involved, including instructions will be no more than 60 minutes.

Confidentiality

All information collected in this study will be kept secure to the extent permitted by law. I understand that the data I provide will be grouped with data others provide for the purpose of reporting and presentation and that my name will not be used. I understand that the session will be audiotaped and my computer usage (mouse clicks and webpages visited) will be electronically recorded, but my face will not be video taped. My voice and computer usage recording will not be played to others besides the research team without my written permission. The recordings will be kept in a locked cabinet and will be destroyed by December 31, 2015.

Risks

I understand that the risks of my participation are expected to be minimal in nature.

Benefits, Freedom to Withdraw, & Ability to Ask Questions

I understand that this study is not designed to help me personally but that the investigators hope to gain a better understanding of DCP audience segments, and make improvements to the content, structure and presentation of standard pages on cancer.gov. I am free to ask questions or withdraw from participation at any time and without penalty.

Contact Information of Investigators

Investigator: Kara Smigel Croker

Telephone: 301-594-9936

Email: smigelk@mail.nih.gov

Printed Name of Research Participant _____

Signature of Research Participant _____

Date _____