
Prepared for the National Institute of Allergy and Infectious Diseases (NIAID) by the American Institutes for Research (AIR)

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**Background Summary**

The National Institute of Allergy and Infectious Diseases (NIAID) is conducting research to better understand HIV and how it causes disease, find new tools to prevent HIV infection, develop new and more effective treatments for HIV-infected people, and ultimately find a cure for HIV. As part of the NIAID mission, this research is communicated to key audiences—such as the general (lay) public, healthcare professionals, prevention workers, treatment advocates, congressional staff, and researchers—through the HIV/AIDS portal of the NIAID Web site: [http://www.niaid.nih.gov/topics/hivaids/Pages/Default.aspx](http://www.niaid.nih.gov/topics/hivaids/Pages/Default.aspx).

In May 2013, usability testing of the HIV/AIDS portal was conducted with the general public based on NIAID’s determination that the general public and not researchers are the primary audience for the portal. Usability testing determined whether the Web site’s visitors understood the organization and structure of the HIV/AIDS portal, and whether they were able to successfully navigate the site to find the information that they were seeking.

The usability testing revealed that visitors (a) were somewhat confused by overlapping or redundant content; (b) found the content of the Research area of the HIV/AIDS content difficult to understand; (c) did not believe that they were the intended audience for the research content; and (d) did not understand why some topics, such as Prevention or Treatment appeared in both the Understanding and Research areas of the portal.

**Purpose of the Content Review**

To address the findings of the usability testing with the primary aim to serve the general public, a comprehensive review of current HIV/AIDS content and organizational structure of the portal was conducted by the American Institutes of Research (AIR). The overall purpose of the review was to

- Identify overlapping and redundant content
- Assess content for tone, plain language, and ease of understanding for the intended audience, particularly in the Research section of the site
- Develop a revised content and portal structure, based on the results of the content review and usability testing

**Methodology**

While keeping the primary audience in mind, AIR reviewers followed the existing HIV/AIDS portal structure and reviewed content of approximately 90 out of 190 pages, which represent only those links that were accessible when using the portal navigation. AIR also reviewed more than 75 orphan pages that could not be reached through available navigation links but were included in the list of links provided by NIAID. AIR made recommendations for placement or organization for the pages reviewed and the orphan pages. Pages that were not reviewed for
content included agendas, meeting summaries, lists of advisory or working group committee members, reports, news articles, and illustrations, because this content was deemed to fall outside the scope of the task. These pages, however, are included in the attached Excel spreadsheet.

Using an Excel spreadsheet, AIR reviewers noted the following key items:

- **Page title**—Reviewers noted whether the page title was consistent with the navigation options.
- **URL/location**—Reviewers captured page location.
- **Web section**—Reviewers identified the section under which the page was organized, such as Understanding, Research, or Multimedia (the Web and subtopic sections are important for sorting and showing connections).
- **Subtopic**—Reviewers noted the subtopic under which the page was located.
- **File type**—Reviewers noted file types, such as HTML, PDF, etc.
- **Navigation and parent links**—Reviewers noted the navigation path.
- **Content description**—To provide context, a brief description of existing content was included.
- **Tone and language**—Reviewers reported whether content was written in a clinical or conversational manner and if the content was easy or difficult to understand.
- **Links**—Reviewers noted links to other Government (non-NIAID) resources.
- **Recommendations**—Reviewers provided preliminary content recommendations based on the content review. Reviewers identified and made specific suggestions about overlapping or redundant content.
- **Comments**—Reviewers identified any problems or issues with current pages, such as unable to print, broken links, etc.

**Findings and Recommendations From the Content Review**

Following the current organization of the portal, findings from the content review are organized below into two sections: *Understanding HIV/AIDS* and *Research*. Each section provides a bulleted overview of the findings and observations from the Web portal content review, followed by a more detailed list of recommendations. In addition, the attached Excel spreadsheet catalogs all of the pages in the HIV/AIDS Web portal and details specific recommendations for each page.

**Understanding HIV/AIDS**

The *Understanding HIV/AIDS* section offers information that is organized into eight subtopics: Overview, Cause, Transmission, Symptoms, Testing and Diagnosis, Treatment, Prevention, and Glossary. Keeping the general public in mind as the primary audience—and to a certain extent healthcare professionals, prevention workers, treatment advocates, congressional staff, and researchers—the review revealed the following.
Understanding: Global Content Comments

- Tone and language of the pages vary from conversational to highly technical or clinical.
- Some information may be duplicated among the subtopics—Prevention and Treatment—between the Understanding and Research sections. The information in Understanding is geared toward the general public, while the content in the Research section outlines NIAID’s research goals and direction and is not geared toward the general public.
- Some pages have content that has not been updated in the past 3 years.
- Some photos look dated or are not immediately relevant to the content.
- Glossary was last updated on September 10, 2008, and last reviewed on September 10, 2008.
- Link text is not always consistent with the page title, making navigation difficult for the user.
- Some pages, such as Biology of HIV, do not appear on the left navigation bar, making it confusing for users.
- The review team identified several orphan pages that could not be reached through available navigation links. See page 6 for a discussion and sample of pages that may be of immediate interest to NIAID. A complete list is included in the Excel spreadsheet.

Recommendations

The following recommendations focus on consolidating information and revising content, to primarily serve the information needs of the general public. Please refer to the attached Excel document for detailed, page-by-page recommendations.

- Combine content or pages where appropriate.
- Remove pages that are duplicative.
- Revise content to maintain conversational tone and use of plain language principles. Many of the pages in the Understanding section are written in a clinical or technical manner and would benefit from easier to understand language. Also, the tone changes from page to page and becomes increasingly technical as the user drills down.
- Simplify language on the Biology of HIV pages (in the Understanding section) and clearly define scientific terms. In addition, some of the pages could be combined, thus eliminating or streamlining some of the content.
- Update or replace photos to appeal more to the general public possibly show real people. For example, in the treatment page, consider replacing the photo of drug treatments to a more positive image.
• Update and expand the glossary to include all acronyms used in the Understanding section.
• Consider creating a page or section that summarizes information about HIV/AIDS in specific populations or communities, such as women, African Americans, etc. Also include information about health observances, such as HIV Testing Day and World AIDS Day, in this section.
• Move the Glossary link from the Prevention page to appear on the left navigation menu as a top-level link with the other Understanding section topics. Add links to the glossary from pages that use more technical or clinical terms.
• Consolidate and highlight NIAID’s key research goals and clinical trials.
• Determine, with NIAID’s direction, whether any of the orphan pages should be kept, combined with other pages, or require a new subtopic or subtopics.

Research
The Research section is organized into six subtopics: Basic Research, Epidemiology, Treatment, Prevention, Vaccines, and Cure, with many links in the content pages. As noted in the May 2013 usability testing report, most of the content seems too clinical or technical for the general public and too basic for researchers. Keeping the general public in mind as the primary audience, the review found the following.

Research: Global Content Comments
• The tone and language varies; however, this section is much more technical and clinical than the Understanding section.
• Many pages have content that has not been updated in the past 3 years.
• Link text is not consistent with page titles through the Web portal.
• Some information is duplicated within the Research section and between the Understanding and Research sections.
• Some pages in the Research section have too many links, making it easy to “lose your place.”
• Pages contain good information but may not be written to a clearly defined audience (e.g., the Epidemiology page is too technical and long for a general audience).
• Many of the pages in the Basic Research section include very little content and have not been updated.
• The review team identified several orphan pages. See page 6 for a description and sample pages.

Recommendations
Based on findings from the May 2013 usability study, the current perception held by the general public is that the Research section is for “doctors, clinicians, students, and researchers, but not for me.” At the same time, much of the content could be considered basic information about HIV/AIDS and not of interest to researchers. The following recommendations for the Research
section focus on organizing content to better serve the general public. At the same time, recommendations are provided for linking researchers to information about NIAID’s HIV/AIDS research. Please refer to the attached Excel document for detailed, page-by-page recommendations.

- Overall, consider moving content that is of interest to the general public to the Understanding section.
- Consolidate pages that present content in only one or two paragraphs, as appropriate.
- Eliminate duplicative content and navigation options (e.g., Prevention, Treatment).
- Revise content identified to be of interest to the general public, prevention workers or treatment advocates, and congressional staff into plain language. More clearly label this information and consider moving to the Understanding section.
- Add links to other areas of the NIAID Web site that are of interest to researchers.
- Highlight NIAID’s research goals and clinical trials. Currently, this information is not consolidated, hard to find, or listed at the end of the section rather than at the beginning (Exhibit A).
- Consider streamlining content and adding links to the left navigation menu.
- Some of the Research pages have information that builds on the general information mentioned on the Research Overview, but content is not clearly linked and seems repetitive with only a few additional details.
- Determine, with NIAID’s direction, whether any of the orphan pages should be kept, combined with other pages, or require a new subtopic or subtopics.
- Consolidate information that is of primary interest to researchers, place such information on the Resources for Researchers page or other areas of the NIAID Web site that are of interest to researchers, and provide links to these pages (also see Proposed HIV/AIDS Web Portal Organization below). Note that usability studies conducted for the NIAID Resources for Researchers Web portal found information in the HIV/AIDS Web portal that could be included in the Resources for Researchers’ section.

Exhibit A: Screenshot of “Finding a Cure” Page
Orphan Page Identification

AIR reviewers identified more than 75 orphan pages (e.g., HIV Infection in Women, HIV/AIDS, Protecting Women and Girls from HIV/AIDS, Community Outreach, HIV/AIDS) that could not be reached through available navigation links, but yet are part of the HIV/AIDS portal.

Exhibit B identifies examples of orphan pages that may be of immediate interest to NIAID to identify and fix. A complete list is included in the Excel spreadsheet.

Exhibit B: Orphan Pages

<table>
<thead>
<tr>
<th>URL/Location</th>
<th>Web Section</th>
<th>Subtopic/Left Navigation Menu</th>
<th>Page Title/Name</th>
<th>Content Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL/Location</td>
<td>Web Section</td>
<td>Subtopic/Left Navigation Menu</td>
<td>Page Title/Name</td>
<td>Content Description</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------</td>
<td>-------------</td>
<td>--------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
Proposed HIV/AIDS Web Portal Organization

The following recommendations for the HIV/AIDS portal structure are based on a review and analysis of both the May 2013 usability report and the current content review of portal pages. Overall, AIR recommends two types of revisions to the organizational structure:

- Streamline and reorganize content to better serve the primary audience—the general public—and to enable users to find information more easily. Place all content, including research of interest to the general public, under the *Understanding* section.
- Consolidate information that may be of interest to researchers, place such information on the Resources for Researchers page or other areas of the NIAID Web site that are of interest to researchers, and provide links to these pages.

*Information for the General Public*

Participants in the usability study suggested that the Overview and Understanding pages be combined. The content review suggests this can be done. Participants also thought that Treatment and Prevention pages should be included in the *Understanding* section, not in both *Understanding* and *Research*. Content review supports this suggestion. Participants expressed a desire to know more about NIAID’s role in HIV/AIDS research, possibly a history of NIAID’s involvement. Placing this information as part of the navigation menu will make such information more accessible. Exhibit C outlines the proposed organizational structure for the HIV/AIDS portal.

**Exhibit C: Understanding HIV/AIDS**

- If possible, remove “Understanding” as the main header or use different title
- Overview/Understanding, including prevalence
- NIAID’s Role/History of AIDS (from Research section, including History of Vaccine Research)
- Current Research (research information geared to general public; include link to pertinent information for researchers)
- Transmission/Cause
- Symptoms
- Testing and Diagnosis
- Treatment
- Prevention
- HIV/AIDS in specific populations or HIV/AIDS in Your Community (also include special observance days)
- Glossary (combination of all glossaries)
- Other Resources (combination of all additional resource sections)
- Multimedia and Publications
- Illustrations and Multimedia
- Publications
Information for Researchers
The content below should be of interest to researchers and could be consolidated and placed on the Resources for Researchers portal or other sections of the NIAID Web site. Exhibit D outlines the proposed organizational structure for information for researchers.

Exhibit D: Information for HIV/AIDS Researchers on NIAID’s Resources for Researchers Section
- Resources for Researchers
- NIAID Research Goals (combine goals on newly created page from content on Basic Research, Epidemiology, Treatment, Prevention, and Vaccines pages; and possibly combine or link to Potential Funding Opportunities: NIAID Council-Cleared Concepts)
- HIV/AIDS Basic Research
- HIV Targeted Interventions (example)
- Pathogenesis (example)
- HIV/AIDS Clinical Research
- Clinical Research Policies and Standard Procedures (example)
- Vaccines
- Vaccine Research Center (example)
- Funding Opportunities
- Potential Funding Opportunities: NIAID Council-Cleared Concepts (example)
- Funding Opportunities for HIV/AIDS Researchers (internal and external, current active grants) (example)
- Partners and Collaborators
- Scientific Meetings, Workshops, and Events
- Advisory Groups and Committees
- Division of AIDS
- Reports and Articles
- News in HIV/AIDS Research

Next Steps
- Meet with NIAID to review findings from the Web portal content review and subsequent recommendations
- Discuss the proposed organizational structure of the HIV/AIDS Web portal. Confirm with NIAID the purpose of the Research section and options for reorganizing and revising the pages.
- Revise proposed structure based on feedback.
- Based on NIAID feedback, prepare and submit a detailed plan that outlines the proposed revision and reorganization of content (section by section) for the new HIV/AIDS Web portal.
- Implement the plan and re-write content based on the approved plan.
- Proceed with the actions outlined in the detailed plan approved by NIAID.
• Convene periodic meetings or conference calls to discuss and review questions about removing, reorganizing and revising pages and relocating page links for the HIV/AIDS Web portal.
ABOUT AMERICAN INSTITUTES FOR RESEARCH

Established in 1946, with headquarters in Washington, D.C., American Institutes for Research (AIR) is an independent, nonpartisan, not-for-profit organization that conducts behavioral and social science research and delivers technical assistance both domestically and internationally. As one of the largest behavioral and social science research organizations in the world, AIR is committed to empowering communities and institutions with innovative solutions to the most critical challenges in education, health, workforce, and international development.

LOCATIONS

**Domestic**
- Washington, D.C.
- Atlanta, GA
- Baltimore, MD
- Chapel Hill, NC
- Chicago, IL
- Columbus, OH
- Frederick, MD
- Honolulu, HI
- Indianapolis, IN
- Naperville, IL
- New York, NY
- Portland, OR
- Sacramento, CA
- San Mateo, CA
- Silver Spring, MD
- Waltham, MA

**International**
- Egypt
- Honduras
- Ivory Coast
- Kenya
- Liberia
- Malawi
- Pakistan
- South Africa
- Zambia