NIAMS Usability Testing

October xx 2003

Prepared for: NIH, NIAMS
Danny Heise, Computer Specialist
One Democracy Plaza
6701 Democracy Blvd., Suite 704, MCS 4872
Rockville, MD 20892-4872

Prepared by: Jeff Harpster, Ph.D.
Consulting Project Director
Human Factors International, Inc.
Washington, DC

Agenda - Usability Testing Results

Introduction

Test Description

Highlights

Detailed Findings

Recap of Findings/Recommendations

Introduction

Overall

HFI was ask to evaluate the current NIAMS website design for usability and accessibility, and provide recommendations about changes that could be made to improve the user experience.

Objectives
- Test the user interface of the NIAMS public website
- Identify high and low performing areas on the site
    -translate feedback into suggested improvements

Usability Testing

What's a usability test for?

Qualitative research
- Ease of learning
- Ease of use
- Memorability
- Error frequency and severity
- Subjective satisfaction

Bottom line
- Observe real users doing real tasks on your site
- Find the major usability problems

The Test

Date

Thursday-Friday, September 25-26

Place

Bureau of Labor Statistics Usability Lab
Washington, DC

Methodology

- 16 subjects were tested
- sessions were video taped
- a "think aloud" protocol was used to better understand the users' thoughts regarding problems and the UI

Demographics

#	Name	Type/Occupation
1	Brittany	Medical Journalist
2	Ruth S.	Patient/Skin Disorder
3	Ruth K.	Caregiver/Rehab Counselor
4	Edward	Clinical Researcher/Lab Scientist for Bone Research
5	Wendy	Caregiver/Arthritis
6	Janet	NIAMS Insider/IT Specialist
7	Rocky	NIAMS Insider/Cartilage Biology & Orthopedics
8	Bruce	HS Science Teacher/Dept. Head
9	Brooke	NIH Funded Researcher
10	Adrian	NIH Funded Researcher/Immunology Research
11	Raymond	RN Nurse/Hospital Rehab Unit
12	Calanet	Science Policy Expert/Arthritis Foundation
13	Sean	Science Policy Expert/NSF
14	Dorothy	Older Individual with Science Interest 65+
15	Michael	Physician
16	Rachel	HS Senior/Student

Method

Procedure - Task List (page 1 of 7)

Homepage Evaluation

1. Tell me what you noticed first?

2. What do you think this site is for? What do you think one could do anything using this site?

3. Please point to the things that you expect to be able to click on this page.
    Probes> Pictures? Icons?

4. Just looking at how this page looks, what do you think is the most important information on the page?

5. Based on this homepage, what kind of work do you think NIAMS does?

6. Are there any terms or words that are unfamiliar? For professionals: That might seem intimidating or technical for a lay reader/patient?

Method

Procedure - Task List - 2

About NIAMS

7. Arthritis, Musculoskeletal, and Skin Diseases sounds like it encompasses a wide range of ailments. Where do you think you could find a comprehensive list of all the ailments that are covered on the NIAMS website? [A: Health Information > Health Topics]

8. Who is the director of NIAMS [A: About NIAMS > Mission (or Organization…)]

9. Where would you find information about the Pediatric Rheumatology Clinic at NIAMS. [A: About NIAMS > Out Reach Programs > Pediatric Rheumatology Clinic]

10. What is the director's email address and phone number? [A: About NIAMS > Organization…]

11. Is there anything on the website to help you understand the goals and mission of this institute? [A: About NIAMS > Mission]

12. Is there any way to find out how much funding NIAMS had for FY2002? [A: About > Budget and Legislation > Fiscal Year 2002 (447+ million)]

Method

Procedure - Task List - 3

Research & Funding Resources (Skip for Non-Professionals)

13. Where would you look to find out the types/topics of research grants that NIAMS would be likely to fund? [A: Research and Training: Around the Country > Funding Opportunities > Currently Active PAs or RFAs]

14. Does NIAMS provide any grants that are for new investigators? [A: Research and Training: Around the Country > Funding Opportunities > Types of Research and Grant Opportunities > Small Grant for New Investigators]

15. Where would you find the policy on Human Fetal Tissue Research? [A: Research and Training: Around the Country > Grant Applications > Application Forms > Human Fetal Tissue Research] or [A: Research and Training: Around the Country > Clinical Research > NIH Policies > Use of Human Fetal Tissue]

16. Can you find a list of the current funding opportunities (PAs) for Biobehaviorial Pain Research? [A: Research and Training: Around the Country > Funding Opportunities > Currently Active Program Announcements]

17. Can you find information on the policy for including human subjects in sponsored research? [A: Research and Training: Around the Country > Clinical Research > NIH Policies > Office for Human Protection…]

18. Are there any resources to help investigators understand the grand application/review process? For instance, how would your grant proposal get reviewed? [A: Research and Training: Around the Country > Grant Applications > Review Process]

Method

Procedure - Task List - 4

19. Is it possible to download a grant application form for a Regular Research Grant? [A: Research and Training: Across the Country > Funding Opportunities > Types of Research and Training Programs > Regular Research Grant - 398]

20. Where would you find information on Fellowship for students with disabilities? [A: Research and Training: Across the Country > Funding Opportunities > Types of Research and Training Program > Predoctoral Fellowships for Students with Disabilities]

21. If you were working on a project about Muscle Biology and wanted to write a grant but were not sure if the topic was appropriate for NIAMS or just wanted to email someone about the process, whom would you contact? [A: Research and Training: Across the Country > Muscle Biology Branch]

22. Have you applied for funding from any other resource? Did the source have a webpage? How does this compare? [A: Careful to not get bogged down here.]

23. Can you get to the homepage from here? [A: Note what participant tries]

Method

Procedure - Task List - 5

Institute Events

24. Can you find any listing of talks/workshops/meetings that are sponsored by or related to work done at NIAMS? [A: Research and Training: Bethesda Campus > Meeting and Events] or [A: News and Events > Upcoming Meetings] or [A: News and Events > Spotlight on Research]

25. Earlier this year there was a meeting of NIH MUSCULAR DYSTROPHY RESEARCH TASK FORCE, can you find information about what was discussed at this meeting? [A: News and Events > Reports > NIH Muscular…]

Health Information (Skip for professions if short on time)

26. Say you just found out that your friend has Arthritis. You heard that there are clinical trials that they could participate in at NIAMS/NIH. Where would you find out about these? [A: Research and Training: Bethesda Campus > Studies with Patients > Search the Studies]

27. Where would you find information about the Patient Research Registry for Muscular Dystrophy? [A: Health Information > Patient Research Registry > Muscular Dystrophy]

28. If you wanted to have some information sent to you on Hip Replacements how would you arrange for that? [[A: Health Information > Order Publications > Hip Replacement]

29. You want to find what Gout is and what can be done to treat it. Can you find this information on the site? [A: Health Information > Gout]

30. Does the site highlight any findings from research done at or funded by NIAMS? [A: News and Events > Press Releases…]

Method

Procedure - Task List - 6

31. We haven't spent much time reading carefully, but from what you have seen, does the information provided in the health section seem easy to understand? [Note comments]

Intramural Research Information

32. Are there scientists doing research right at NIAMS?

33. If so, what kinds or research do they do? (Basic science, applied science, socio-ethical policy) [A: Research and Training: Bethesda Campus > Labs and Branches]

34. How would you find out about research jobs available at NIAMS? [A: Research and Training: Bethesda Campus > Jobs and Training > NIAMS Employment Opportunities]

35. You heard that NIAMS had a lab that studied Skin Biology. How would you find out more about this lab? [A: Research and Training: Bethesda Campus > Labs and Branches > Lab of Skin Biology]

36. Can you find out who is on the research staff at NIAMS? [A: About NIAMS > Organization and Staff Directory > IRP]

37. Can you find out what they are working on in the Genetics and Genomics Research Branch? [A: Research and Training: Bethesda Campus > Labs and Branches > Genetics and Genomics]

38. Can you access a recent journal publication by Dr, Horowitz in the Muscle Assembly Group? [A: Research and Training: Bethesda Campus > Labs and Branches > Muscle Assembly Group > Selected Publications]

Method

Procedure - Task List - 7

Preparing to Teach (5 minutes)

39. Suppose you wanted to get a speaker to come to your class/organization and give a talk on Arthritis, where could you find information about this? [A: Health Information > Outreach Programs > NIH Speakers Bureau]

40. Can you find any resources to help teachers prepare a lesson about the research done at NIAMS? [A: Health Information > Outreach Programs > NIAMS Curriculum Program]

41. For Teachers ONLY: Suppose you gave your students an assignment to do a report on Acne. Find the information on the site about Acne and tell me if it is detailed enough for this purpose? {A: Health Information > Acne]

42. For Students ONLY: Suppose your teacher gave you an assignment to do a report on Acne. Find the information on the site about Acne and tell me if it is detailed enough for this purpose? {A: Health Information > Acne]

Warm down

43. Where is the NIAMS is located? [A: Contact NIAMS]

44. Where would you find the information about how to donate money to NIAMS? [A: About NIAMS > Budget and Legislation > Donations to the Gift Fund]

Highlights

Findings

Major Issues

1. **Top level organization**
    Research and training link names did not reflect content contained within
2. **Some information was difficult to find**
    ex. Budget info, NIAMS address, policy info
3. **Integration with NIH**
    There are dozens of links to NIH, the integration between the sites needs
        to be better.
4. **Search**
    Search results were poor, whole site not searched
5. **Two sites not one...**
    Intramural site completely separate from main site
6. **Graphic appearance**
    Boring and geared toward researchers

Highlights

Video

Video tapes of each subject are available if anyone would like to view the testing…

These were too similar, and the big difference between the two was not location… It was the intramural/extramural distinction… These caused a lot of confusion.

16

Research & Training - Around the Country
Overview, Funding Opportunities, Grant Applications, All About
Contracts, Clinical Research, Current Funded Research

Research & Training - Bethesda Campus
NIAMS Laboratories, Studies with Patients (Clinical Trials),
Researcher Resources

These should be links.

**Video Sean #13
13:29:50 2 min, confusion about
top level organization**

**Suppose you were looking for clinical trials in California…
Users would go to "Around the Country"**

**If you were looking for a journal article by a particular
scientist, users wondered where they were located.**

17

Findings Some Information Was Difficult to Find

Meetings, Reports

About NIAMS
Mission, Strategic Plan, Organization & Staff Directory, Employme
Opportunities, Budget & Legislation, Outreach Programs,
Committees

En Español

Contact NIAMS | Accessibility | Disclaimer | Privacy Statement

"Contact NIAMS" was well below the fold and difficult for many people to find. Include a link to "Contact NIAMS" under "About NIAMS"

Research & Training Around the Country

- Overview
- Funding Opportunities
- Grant Applications
- All About Contracts
- Clinical Research
- Current Funded Research

Search NIAMS [ ] (Go) (Clear)

Funding Opportunities

- Funding Initiatives at NIAMS
    - Current Funding Initiatives Supported by NIAMS
        - Currently Active Program Announcements (PAs) (Grants)
        - Currently Active Request for Applications (RFAs) (Grants)
        - Currently Active Request for Proposals (RFPs) (Contracts)
        - Loan Repayment Program - deadline extended

    - Historic Listings of Opportunities funded by NIAMS
    - Selected NIH Guide Notices
    - Definitions
    - NIH/NIAMS Policy

        Please note that clinical trials and research projects have special requirements under human subject headings in RFAs (PAs) and may require additional information to be submitted with your application, beyond what is outlined in the PHS 398 Form. Please review the RFA (PA) carefully and refer to the NIAMS Clinical Research Page for guidance in submiting your application.

Policy issues were difficult to find, for example this link was not very helpful, but was often the first one found. The link to the Clinical Research Page was much better.

(link goes to "What's new in funding…")

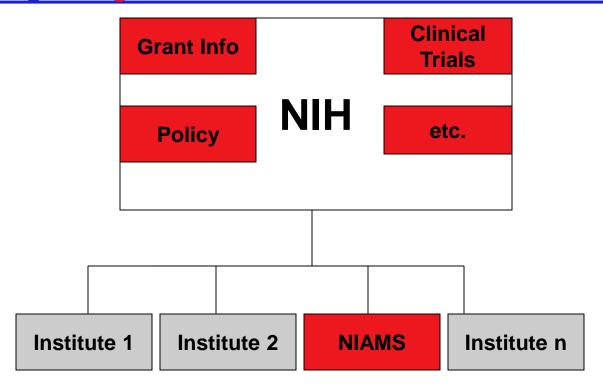**Clinical Research Page is really the "Policy Page"**

19

Budget & Legislation

Current and Historical Budget Information

- FY 2003 Funding Plan
- Funding Adjustments in FY 2002 and FY 2003

Funding Plans - Prior Years

- FY 2002 Funding Plan
- FY 2001 Funding Plan
- FY 2000 Funding Plan

Mechanism Tables - Prior Years

- Fiscal Year 2002
- Fiscal Year 2001
- Fiscal Year 2000
- Fiscal Year 1999
- Fiscal Year 1998
- Fiscal Year 1997
- Fiscal Year 1996
- Fiscal Year 1995

Budget & Legislation

Fiscal Year 2002 Actual Obligations

(Dollars in thousands)

Budget Mechanism	No. of Awards	Amount
Research Grants		
Research Project Grants (RPG):		
Noncompeting	705	$205,346
Administrative Supplements	(58)	3,168
Competing	257	74,806
Subtotal	962	283,320
SBIR/STTR	35	9,938
Subtotal, RPGs	997	293,258
Research Centers	36	35,442
Other Research:		

Most did not understand what 'mechanism' was…

This was confusing for most 'outsiders' was this only the research budget? Some did not see that the numbers were in 1000s.

20

Findings Integration with NIH

The trick is to provide NIAMS specific information under NIAMS, and direct the user to the NIH resources for information shared across the institutes.

-Let users know when they are going to NIH
-When possible pull back NIAMS specific info to NIAMS so users don't have to go to NIH (e.g. clinical trials for arthritis)
-If you can't pull back the data, try to preformat queries to the NIH databases

Some users didn't realize NIH was a totally different site.

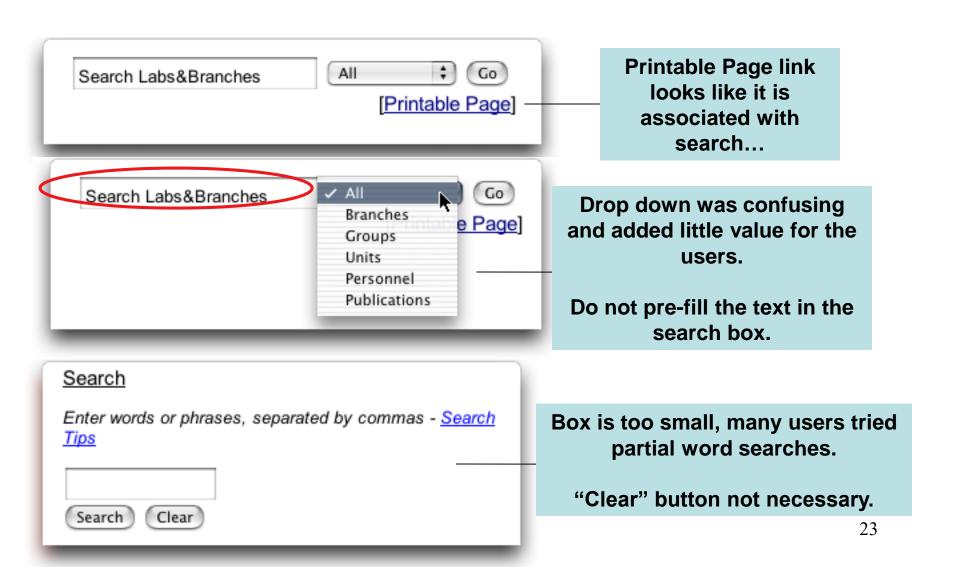Information on Health Disorders
- NIAMS Health Information — **NIAMS**
- NIH Health Information — **NIH**
- Combined Health Information Database — **NIH**
- Email for Health-Related Questions — **NIAMS**
- NIAMS Information Clearinghouse — **NIAMS**

Participation in a Clinical Research Study
- What is a clinical study? — **NIH**
- Resource Information — **NIH**
- Search the studies — **NIH**
- How to participate
  - Patients and Families — **NIH**
  - Healthy Volunteer — **NIH**
  - Physician — **NIH**

Helpful Resources
- Office of the Clinical Director of NIAMS — **NIAMS**
- NIAMS Community Health Center — **NIAMS**
- IRPartners — **NIAMS**
- NIH Osteoporosis and Related Bone Diseases-National Resource Center **NIH**
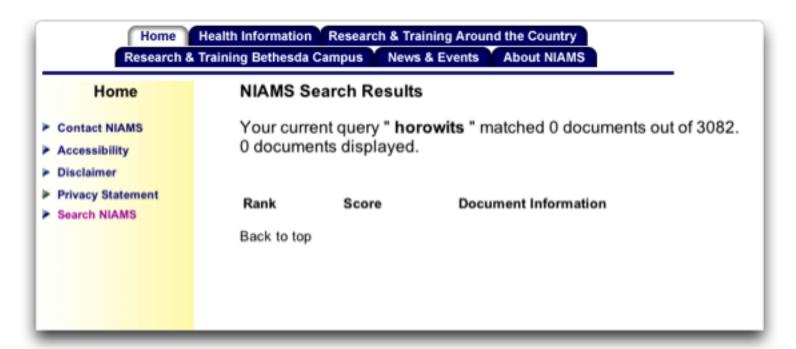- Warren Magnuson Clinical Center **NIH**

•**Many links to NIH, all open in new window, which caused much confusion during the test.**
•**Users are not aware which links take them to NIH.**

Findings **Search**

There was no spelling support.

Printable Page link looks like it is associated with search…

Drop down was confusing and added little value for the users.

Do not pre-fill the text in the search box.

Box is too small, many users tried partial word searches.

"Clear" button not necessary.

23

Findings Search

Search results were poor. Rarely did users find what they were looking for. With a high level of linking of your site to NIH you should make it easy to search both sites at once.

Home | Health Information | Research & Training Around the Country
Research & Training Bethesda Campus | News & Events | About NIAMS

Home

- Contact NIAMS
- Accessibility
- Disclaimer
- Privacy Statement
- Search NIAMS

NIAMS Search Results

Your current query " **horowits** " matched 0 documents out of 3082. 0 documents displayed.

Rank   Score   Document Information

Back to top

Intramural search did not search, the rest of NIAMS and the NIAMS search did not search intramural site. No one realized this.

To search everything you needed to do 3 searches on three different sites. NIAMS, NIAMS Intramural, NIH

24

No ability to search within results (refine search)

NIAMS Search Results

1 2 3 4 5 6 7 8 9 10 [Next]

Your current query " **arthritis** " matched 847 documents out of 3082.
20 documents displayed.

Rank Score Document Information

1   0.75   Reports - Highlights in Arthritis Research from the Science Writers Briefing on Arthritis, May 30, 1997
Size: *16 KB*, URL: *http://www.niams.nih.gov/ne/reports/sci_wrk/1997/scibrief.htm*
Summary: The briefing was part of the first biennial Arthritis Research Conference, co-sponsored by NIAMS, NIAID, the American College of Rheumatology, and the Arthritis Foundation, that brought together established researchers and young investigators to discuss t

2   0.75   Nationwide Hunt for Rheumatoid Arthritis Genes Launched: National Institutes of Health and Arthritis Foundation Announce Research Partnership
Size: *18 KB*, URL: *http://www.niams.nih.gov/ne/press/1997/09_04.htm*
Summary: The National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS), the National Institute of Allergy and Infectious Diseases (NIAID) and the Arthritis Foundation are announcing today at a press briefing* that they are joining forces to sup
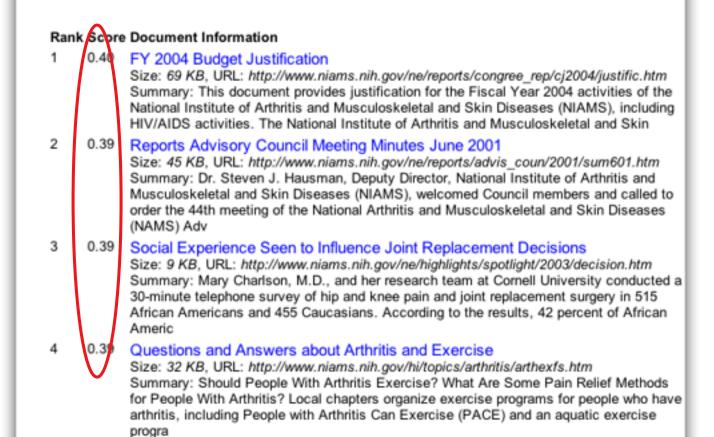
3   0.72   National Institute of Arthritis and Musculoskeletal and Skin Diseases Home Page

The "score" could be eliminated, it adds little or no value for the user. Sorting by date would be more helpful.

NIAMS Search Results

Your current query " **arthritis treatment** " matched 4 documents out of 3082.
4 documents displayed.

Rank Score Document Information

1   0.40   FY 2004 Budget Justification
Size: 69 KB, URL: http://www.niams.nih.gov/ne/reports/congree_rep/cj2004/justific.htm
Summary: This document provides justification for the Fiscal Year 2004 activities of the
National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS), including
HIV/AIDS activities. The National Institute of Arthritis and Musculoskeletal and Skin

2   0.39   Reports Advisory Council Meeting Minutes June 2001
Size: 45 KB, URL: http://www.niams.nih.gov/ne/reports/advis_coun/2001/sum601.htm
Summary: Dr. Steven J. Hausman, Deputy Director, National Institute of Arthritis and
Musculoskeletal and Skin Diseases (NIAMS), welcomed Council members and called to
order the 44th meeting of the National Arthritis and Musculoskeletal and Skin Diseases
(NAMS) Adv

3   0.39   Social Experience Seen to Influence Joint Replacement Decisions
Size: 9 KB, URL: http://www.niams.nih.gov/ne/highlights/spotlight/2003/decision.htm
Summary: Mary Charlson, M.D., and her research team at Cornell University conducted a
30-minute telephone survey of hip and knee pain and joint replacement surgery in 515
African Americans and 455 Caucasians. According to the results, 42 percent of African
Americ

4   0.39   Questions and Answers about Arthritis and Exercise
Size: 32 KB, URL: http://www.niams.nih.gov/hi/topics/arthritis/arthexfs.htm
Summary: Should People With Arthritis Exercise? What Are Some Pain Relief Methods
for People With Arthritis? Local chapters organize exercise programs for people who have
arthritis, including People with Arthritis Can Exercise (PACE) and an aquatic exercise
progra

Back to top

Searches on the Intramural site were very different.
Notice Horowits was found in this search.

[   ] (Go)

Refine your results using the following categories.

Publication	Personnel
☐ Author ☐ Subject ☐ Journal ☐ Pub Year	☐ First Name ☐ Last Name ☐ Title ☐ Email

Branch	Group
☐ Branch Name	☐ Group Name ☐ Keywords

Unit
☐ Unit Name

☐ Printable Result

---

search for **horowits** in Publications, **15 results** found.

1. Luo G, Zhang JQ, Nguyen TP, Herrera AH, Paterson B, Horowits R. Complete cDNA sequence and tissue localization of N-RAP, a novel nebulin-related protein of striated muscle. *Cell Motil Cytoskeleton*. 1997; 38: 75-90. PubMed

The main site and the intramural site were completely separate, no one understood this…

The sites looked different, had different navigation, and different searches. This greatly reduces the overall usability of the site.

Main navigation and look and feel were different.

Findings Graphic Appearance

Most users felt the site was designed for researchers and looked boring…

Video
#1 Brittany
9:38:40 2+ min

Findings Graphic Appearance

Findings Graphic Appearance

Findings Graphic Appearance

Another example

Other issues…

Findings Homepage

What's New

NIAMS Celebrates the Bone and Joint Decade!

➤ Agenda for the September 25, 2003, Council Meeting More...

➤ Questions and Answers about Epidermolysis Bullosa (publication) More...

➤ Questions and Answers about Psoriasis (revised publication) More...

➤ Handout on Health: Atopic Dermatitis (revised publication) More...

➤ Immunomodulatory Drugs in the Treatment of Skin Diseases: What Can We Learn About Pathophysiology? (meeting) More...

➤ Los niños y sus huesos: una guía para los padres More...

- **Font was smaller than on the rest of the page**
- **Area contained a great deal of 'technical jargon'**
- **Area attracted very little attention, if something is interesting, including a picture could help make it stand out**
- **Most users did not believe this area to be very important**

Remove

Health Topics

Updated September 9, 2003

Select a Health Topic

A-G | H-N | O-U | V-Z
other related topics
information packages

- Acne
- Alopecia Areata
- Amyloidosis (information package)
- Ankylosing Spondylitis (information package)
- Arthritis (see also Juvenile Rheumatoid Arthritis)
  - Arthritis and Diet (information package)
  - Arthritis in Children (information package)
  - Q & A: Arthritis and Exercise
  - Q & A: Arthritis Pain
  - Q & A: Arthritis and Rheumatic Diseases
  - Handout on Health: Rheumatoid Arthritis
  - Rheumatoid Arthritis (information package)
  - Handout on Health: Osteoarthritis
  - ¿Tengo Artritis?/Do I Have Arthritis? Spanish/English
  - Osteoartritis (Osteoarthritis) Spanish only
  - La Osteoartritis Resumen (Osteoarthritis Summary) Spanish only

The list of topics needs some work…

•Some info only in Spanish
•Some major items appear missing (see video)
•Why is some info only available as 'information packets'

Video Calanet # 12 Fri 12:24:51 3 min

36

Create a Disease Centric Pages for General Public

Design Idea

Alopecia Areata

En Español

Alopecia areata (al-oh-PEE-shah ar-ee-AH-tah) is an autoimmune disease which usually results in hair falling out in small round patches.

QuickTime™ and a TIFF (Uncompressed) decompressor are needed to see this pictur

What Is Alopecia Areata?
What Causes It?
Who Is Most Likely To Get It?
Is My Hair Loss a Symptom of a Serious Disease?
Can I Pass It on to My Children?
Will My Hair Ever Grow Back?

What Can I Expect Next?
How Is It Treated?
How Will Alopecia Areata Affect My Life?
How Can I Cope With the Effects of This Disease?
Is Research Close to Finding Better Treatments or a Cure?
How Can I Take Part in Research?
Where Can I Learn More About Alopecia Areata?
Glossary

Clinical Trials for Alopecia Areata

Receive a Booklet In the Mail

Recent NIAMS Research on Alopecia Areata

The Order Publications Page was very long and confusing for many…
- The first three items in the list seemed very similar…

Order Publications

Publication Date: August 2003

- Handout on Health Series (HH)--for Patients
- Questions & Answers About . . . (QA)--for Patients/Public
- Information Packages (IP)--for Patients/Health Professionals
- Additional Resources
- Information on NIAMS--for the Public
- Materials for Special Audiences
- Spanish-Language Materials
- Shipping Information

How to Order

1. Please select up to 10 different titles.
2. Complete the shipping information section at the end of the list.
3. Submit the order form to the NIAMS Information Clearinghouse.

Handout on Health Series (HH)--for Patients

These booklets contain an in-depth discussion of the disease or disorder, treatment options, and current research. They are available in regular type and large-print versions. **You may order up to 25 copies of any publication.**

38

Reformat and reorder items.
      (Most important at top, and remove lines between items. Good info is way at the bottom of this page and often overlooked.)
Naming should be examined, especially "NIAMS Coalition Members"

Outreach Programs

NIAMS Health Partnership Program

- Race and ethnic health disparities
- Community Health Center (CHC) in Washington, D.C.

NIAMS Coalition Members

Pediatric Rheumatology Clinic

NIAMS Exhibits (photos)

NIAMS Exhibit Schedule

NIAMS Curriculum Program

In collaboration with the NIH Office of Science Education (OSE), the NIAMS is

Consistent naming would help. Branches, sections and groups were all at the end of the name, but Laboratory was at the beginning…

Genetics and Genomics Branch
The mission of the Genetics and Genomics Branch (GGB) is to identify and characterize genes that confer susceptibility to rheumatic or inflammatory diseases in man.

- Genomics Section

- Inflammatory Biology Section

Laboratory of Muscle Biology
The Laboratory of Muscle Biology (LMB) conducts a broad range of research in muscle and structural biology. This research includes the molecular mechanisms of contraction, muscle elasticity and plasticity, the differentiation and assembly of muscle cells, pathobiology of muscle diseases, and the application of radiation, proteomics, and the use of nanotechnology in life sciences.

- Laboratory Chief Office

- Muscle Assembly Group

Put later

NIAMS Curriculum Supplements would be used more and would be more useful to high school teachers if they would concentrate on "indicators"that are being recommended by AAAS (doc # 2061)

NIAMS Curriculum Program

In collaboration with the NIH Office of Science Education (OSE), the NIAMS is developing a curriculum supplement for 6th to 8th grade students called "Looking Good, Feeling Good: From the Inside Out", to be released in the fall of 2004. The purpose of this curriculum is to highlight NIAMS scientific research and to provide students with an opportunity to understand how the muscle, skin, and bone systems contribute to health and well being. Contact Liz Freedman at (301) 496-8190 or freedmae@mail.nih.gov for more information.

American Association for the Advancement of Science

http://www.aaas.org/education/
http://www.project2061.org/

You should make it as easy as possible for people to learn about clinical trials (you are a research organization!)

Studies With Patients

Information on Health Disorders
- NIAMS Health Information
- NIH Health Information
- Combined Health Information Database
- Email for Health-Related Questions
- NIAMS Information Clearinghouse

Participation in a Clinical Research Study
- What is a clinical study?
- Resource Information
- Search the studies

How to participate
- Patients and Families
- Healthy Volunteer
- Physician

Put somewhere else

Allow them to search from your site, the clinicaltrials.gov site was very confusing. Many did not search it correctly.

Provide a list of studies that is specific to NIAMS.

Video of Michael
#15 15:23:47 3+ min

From the homepage of NINDS, preformatted queries

Accessibility Overview

Accessibility

Overall the accessibility of the NIAMS site is OK. There are a 6 main areas that could use attention.

1. Alt tags for all graphic elements
2. Language tags for pages with mixed languages (Spanish…)
3. Add the ability to skip standard headers
4. More descriptive page titles (minor)
5. Site consistency (Intramural pages are very different from rest of site)
6. Linking on Intramural Site

Accessibility - Alt tags for images

1. Alt tags for all graphic elements

Images are usually indicated with an <IMG> tag.

Example <IMG src="pictureofme.jpg">
<IMG src="pictureofme.jpg" alt="this is a picture of me">

Example from NIAMS
 <td width="9" height="24"><img src="../images/arrow-on.gif" width="8" height="10" align="top"></td>

Accessibility - Language Tags

2. Language tags for pages with mixed languages (Spanish…)

Clearly identify changes in the natural language of a document's text and any text equivalents: identify chunks of text written using different natural languages;
add a **lang** attribute to the innermost element containing the text for each chunk identified previously.

Identifying changes in language is important for a number of reasons:

Users who are reading the document in braille will be able to substitute the appropriate control codes (markup) where language changes occur to ensure that the braille translation software will generate the correct characters (accented characters, for instance);

Speech synthesizers that speak multiple languages will be able to generate the text in the appropriate accent with proper pronunciation. If changes are not marked, the synthesizer will pronounce the words in the language it works in, usually producing sounds that cannot be understood.

Accessibility - Alt tags for images

3. Allow users to bypass standard navigation

The MAP element groups a set of links, the "title" attribute identifies it as a navigation bar , and a link at the beginning of the group links to the anchor after the group.

```
<BODY>
   <MAP title="Navigation Bar">
      <P>
      [<A href="#how">Bypass navigation bar</A>]
      [<A href="home.html">Home</A>]
      [<A href="search.html">Search</A>]
      [<A href="new.html">New and highlighted</A>]
      [<A href="sitemap.html">Site map</A>]
      </P>
   </MAP>
   <H1><A name="how">How to use our site</A></H1>
<!-- content of page -->
</BODY>
```

4. Use more accurate page titles

Clicking On "Research and Training: Around the Country" returns a page with the title

"Overview"

The title is often used in search results and the general idea of the page should be conveyed in the title.

"NIAMS Extramural Research Overview"

Accessibility - Titles

5. Consistency from section to section

The intramural section has completely different navigation from the rest of the site. This places a heavy burden on people using assistive technology.

Accessibility - Titles

6. Intramural site - Put the name of the page that
   you are linking to in the "alt" tags.

There are lots of examples here are two…

```
<img border="0" height="39" width="380" src="images/irphome/menu2_03.gif"
name="menu2_03" >
```

```
<img border="0" height="36" width="380" src="images/irphome/menu2_04.gif"
name="menu2_04" >
```

Recap of Findings/Recommendations

Recap of Findings

Major Issues

1. **Top level organization**
   Research and training link names did not reflect content contained within
2. **Some information was difficult to find**
   ex. Budget info, NIAMS address, policy info
3. **Integration with NIH**
   There are dozens of links to NIH, the integration between the sites needs to
   be better.
4. **Search**
   Search results were poor, whole site not searched
5. **Two sites not one...**
   Intramural site completely separate from main site
6. **Graphic appearance**
   Boring

Recommendations

1. **Reorganize content on the site (checkout www.genome.gov or www.nhlbi.nih.gov for a different organization schemes)**

2. **Review integration with NIH, streamline where possible, permit combined search of NIH and NIAMS, let people know when they are switching sites**

3. **Update search,**
   - **Combine main site and intramural, provide spelling support, enable partial name search**

4. **Make whole site identical in graphical appearance**

5. **Update graphical look, give site some personality, make it more friendly to the general public**

Wrap-up Discussion