Using Your Website for Knowledge Translation

NIDRR
MODEL SYSTEM’S KNOWLEDGE TRANSLATION CENTER
Welcome and Introductions

- **Who are we?**
  - Mark Harniss (MSKTC Co-director)
  - Becky Matter (Research & Evaluation Associate)
  - Cynthia Salzman (Information Specialist)

- **Who are you?**
  - 18 different model systems: 9 TBI; 8 SCI; 1 Burn
  - 4 participants are in media/communications; 6 managers/directors/faculty; remaining are research or program staff (coordinators, assistants, etc.)
  - NIDRR program officers
The Webcast Series

- Using Your Website for Knowledge Translation
  - Part 1: Creating User-Friendly Websites
  - Part 2: Improving Your Websites Effectiveness (March 24, 9:00 am PST)
  - Part 3: Website Accessibility: Becoming an Advocate for People with Disabilities (May 19, 9:00 am PST)
Using Elluminate

- Elluminate is an interactive, real-time, online system.
  - Interact with moderators
    - Raise hand
    - Laugh
    - Applaud
    - Show disapproval
    - Show confusion
  - Chat
    - Ask questions, offer comments
  - Take a poll
  - Take a Web tour
Using Your Website for Knowledge Translation
Part 1: Creating User-Friendly Websites

• Goals
  ○ Learn about why your website is important for knowledge translation,
  ○ Learn about the common problems among the Model Systems websites,
  ○ Learn about how to make your websites user-friendly:
    ✷ Consider needs of your target audiences,
    ✷ Increasing understandability of content,
    ✷ Improving users ability to locate and use information.
Why is your website important?

- **Increased use of internet (websites) for health information**
  (Data Source: Pew Internet & American Life Project)
  - 74% of U.S. adults use the Internet (2008),
  - 8 of 10 Internet users have looked for health information on-line (2005),
  - 86% of Internet users living with disability or chronic illness have looked online for health information, compared with 79% of Internet users with no chronic conditions (2007).
Why is your website important?

- Support the mission of Model Systems: To improve the functional, vocational, cognitive and quality-of-life outcomes for SCI, TBI and Burn Injury populations

<table>
<thead>
<tr>
<th>Model System Activities</th>
<th>Examples of how a user-friendly website can support the mission of your Model System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research</td>
<td>Disseminate research findings</td>
</tr>
<tr>
<td>Clinical care and services</td>
<td>Inform consumers of services available</td>
</tr>
<tr>
<td>Training</td>
<td>Provide on-line training opportunities to professionals</td>
</tr>
<tr>
<td>Consumer outreach</td>
<td>Provide evidence-based health information to consumers and family members</td>
</tr>
</tbody>
</table>
Challenges

- Many Model Systems have limited control over design and format of their website.
- Many Model Systems have not allocated resources (staff, funding) to manage and develop their websites.
- Many Model Systems do not have people who have training in how to create or write for the web.

Poll

- What is the biggest obstacle to making changes to your website?
Poll Results
Model System Websites

- Current Status
  - NIDRR minimum requirements review

- Frequent problems
  - Information is often not current
    - Confuses user
    - Looks unprofessional
    - Reduces credibility
• Frequent problems
  ○ Information is difficult to find
    ▪ Information isn’t organized according to user needs
    ▪ Labels/names don’t make sense to user
    ▪ Pages too dense or cluttered—users can’t skim to look for relevant information.
  ○ Information is difficult to understand
    ▪ Language too technical or advanced.
    ▪ Writing style too academic.
    ▪ Paragraphs too long.
Frequent problems

- Difficult to understand who the Model Systems are and what they do.
  - Many websites do not have a concise description of their Model System.
  - Many websites embedded within a larger organization and have no independent identity.
    - Users can’t tell whether the site has info that might be relevant to them.
    - Users can’t tell whether they should trust the information on the site.
Creating User-Friendly Websites

Website Effectiveness

- Professional & Credible
- Easy to navigate website
- Easy to understand information
- Easy to interact with
Creating User-Friendly Websites

- Easy to understand information
- Easy to navigate website
- Easy to interact with

Website Effectiveness

Professional & Credible
Focus on Page-Level Changes
Who are the target audiences for your website?

Website Effectiveness

- Professional & Credible
- Easy to understand information
- Easy to navigate website
- Easy to interact with
Who are the target audiences for your website?

Potential audiences that go to your website:

A. Consumers, caregivers, and family members from target populations (SCI, TBI, Burn)
B. Healthcare professionals
C. Academics/researchers
D. Policymakers/funders (NIDRR)

Poll

Which audience do you think is the primary target of your website?
Poll Results
Considerations for Target Audiences

- Universal Design Approach
  - All people will be able to understand and use website
    - Information that is easy to find
    - Information written at a level that considers background knowledge
    - Information that is trustworthy (accurate, up-to-date)
  - Considering different needs
    - Types of information sought
Examples:

- A family member of someone who recently suffered from a TBI wants to understand how the injury may impact their behavior.
  - Website provides a link named “TBI Information for Families/Caregivers” that lists factsheets on various TBI topics.

- A MS researcher wants to find other MS researchers who focus on SCI and Depression.
  - Website provides a link named “Research” that lists research projects, funding cycle dates, names and contact information for PI’s.
Types of information audiences are looking for

**Examples:**

- A NIDRR program officer wants to show the legislature an example of the impact of services provided through a MS.
  - Website provides a summary report of number and demographics of client served and types of services provided.

- A primary care physician from a rural area is looking for equipment resources available for an SCI patient in their community.
  - Website provides a link to a list of Community Resources with contact information.
How do you get to know your audience?

- **Use professional experience**
  - Consider developing scenarios of the different users accessing your site.

- **Get user feedback**
  - Consider asking members of different groups to review your site and provide feedback.

- **Revise**
  - As you receive feedback over time, make changes to your site to improve its function.
Making Content Easily Understandable

- Professional & Credible
- Easy to navigate website
- Easy to understand information
- Easy to interact with

Website Effectiveness
First rule of writing for the Web

*It’s not the same as print.*

- How users read on the Web:
  - They skim or *scan* the page and look for cues.
  - They *do not* start at the top and read word by word through the page.
  - When they find something interesting, they start reading.
  - They ignore long blocks of text.

Nielsen J
Make text easy to scan for key ideas

- Highlighted keywords
- Headings and subheadings
- Bulleted lists
- Shorter paragraphs
The North Texas Burn Rehabilitation Model System (NTBRMS) including Parkland Health and Hospital System (PHHS) and the University of Texas, Southwestern Medical center (UTSW) is internationally renowned for its top quality comprehensive program of care, rehabilitation, and research involving children and adults who sustain major burn injury. The NTBRMS was instrumental in establishing the national database and has contributed detailed information on 1247 subjects since 1994. The new grant cycle began on October 1, 2007 and will end September 30, 2012. During this cycle NTBRMS proposes 1 collaborative research module (to be finalized) and 2 site specific research studies entitled “Biomechanical properties of burn scar” and “Efficacy of Social Interaction Skills Training Post Burn Injury.” Each of these projects links directly with the major life domains of NIDRR mission, namely Health and Function, and Participation and Community Living.

Dissemination of NTBRMS materials occurs at many levels and in a variety of formats. The key personnel are nationally renowned lecturers and have a track record for dissemination through scientific publication. The quarterly newsletter and our website reach several thousand individuals per year and are available in English and Spanish. The NTBRMS also makes materials accessible to individuals with disabilities including a “Bobby” approved web site and having audio and video tapes for written material. The NTBRMS will collaborate with NIDRR-funded Model Systems’ Knowledge Translation Center (MSKTC) by participating in its systematic reviews of evidence and will facilitate knowledge management by identifying the information needs and barriers among the various stakeholders both at national and local levels.

The plan of operation has clearly defined objectives, responsibilities, and timelines for carrying out the proposed activities. Collaboration occurs on many levels at the NTBRMS. Clinical collaboration is the hallmark of the burn team, which includes individuals from several institutions who work together seamlessly as well as collaboration with our rural care providers through outreach clinics. Research collaboration occurs locally with the surgeons and academic computing and nationally with the other model systems. The specification plans on the overall objectives for demonstration, research, and dissemination with specific quantifiable targets, which are reassessed quarterly. Intervention plans will be designed to facilitate completion of the proposed objectives. Project staff are a diverse group of well trained and experienced clinicians and researchers with a clear commitment to providing comprehensive care to burn survivors as well as performing state of the art research. The NTBRMS is fully committed to promoting employment and hiring of persons with a disability and has a commitment to diversity at all levels of operation. The budget is reasonable with the majority of federal funding used for full time NTBRMS personnel involved in data collection and analysis. Significant in kind funding is provided to allow the NTBRMS to meet the proposed objectives. Resources are adequate with a strong research operation and clinical program. Both UT Southwestern and PHHS are fully accessible.
The North Texas Burn Rehabilitation Model System (NTBRMS) including Parkland Health and Hospital System (PHHS) and the University of Texas, Southwestern Medical Center (UTSW) is internationally renowned for its top quality comprehensive program of care, rehabilitation, and research involving children and adults who sustain major burn injury. The new grant cycle began on October 1, 2007 and will end September 30, 2012.

**Research**
- The NTBRMS was instrumental in establishing the national database and has contributed detailed information on 1247 subjects since 1994.
- 1 collaborative research module
- 2 site specific research studies
  - "Biomechanical properties of burn scar"
  - "Efficacy of Social Interaction Skills Training Post Burn Injury"
- Each of these projects links directly with the major life domains of NIDRR mission, namely Health and Function, and Participation and Community Living

**Dissemination**
- Scientific publications.
- Quarterly newsletter is available in English and Spanish.
- Collaboration with NIDRR-funded Model Systems’ Knowledge Translation Center (MSKTC) by participating in its systematic reviews of evidence and will facilitate knowledge management by identifying the information needs and barriers among the various stakeholders both at national and local levels.

**Project staff**
- Principal Investigator: Karen Kowalske, MD
- Director of Research: Radha Holenahalli, Ph.D.
- Director of Clinical Services: Vincent Gabriel, MD

**Collaboration**
- Clinical collaboration is the hallmark of the burn team, which includes individuals from several institutions who work together seamlessly as well as collaboration with our rural care providers through outreach clinics.
- Research collaboration occurs locally with the surgeons and academic computing and nationally with the other model systems.
Make long reports easier to read

• Long reports that require lots of scrolling slow and frustrate the user.

•Clickable lists (also called "anchor" or "within-page" links) show what is on the page and allow users to quickly navigate to the desired information.

• Web tour

• [http://www.med.umich.edu/pmr/modelsci/brochure.htm](http://www.med.umich.edu/pmr/modelsci/brochure.htm)
Writing Style & Language

- Word Choice.
- Sentence and paragraph length.
- Voice.
- Verbs.
- Keep prose concise and objective.
- Use topic sentences.
- One idea per paragraph.
- Half the word count (or less) of conventional writing.
Word Choice

- What to do
  - Use commonplace words that are frequently seen and heard.
  - Explain things using simpler words and phrases.
  - Avoid academic and technical jargon.
## Word Choice

<table>
<thead>
<tr>
<th>Word Choice</th>
<th>Acceptable</th>
<th>Unacceptable</th>
</tr>
</thead>
<tbody>
<tr>
<td>so</td>
<td></td>
<td>accordingly</td>
</tr>
<tr>
<td>allow</td>
<td></td>
<td>afford an opportunity</td>
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<tr>
<td>if</td>
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<td>in the event that</td>
</tr>
<tr>
<td>use</td>
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<td>utilize</td>
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<td>must</td>
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<td>incumbent upon</td>
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<tr>
<td><strong>Word Choice</strong></td>
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<tr>
<td><strong>treatments</strong></td>
<td><strong>interventions</strong></td>
<td></td>
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<td><strong>studies</strong></td>
<td><strong>investigations</strong></td>
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<tr>
<td><strong>results</strong></td>
<td><strong>outcomes</strong></td>
<td></td>
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<tr>
<td><strong>combine</strong></td>
<td><strong>integrate</strong></td>
<td></td>
</tr>
<tr>
<td><strong>thinking</strong></td>
<td><strong>cognition</strong></td>
<td></td>
</tr>
</tbody>
</table>
Use active rather than passive voice

<table>
<thead>
<tr>
<th>Active</th>
<th>Passive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consult your physician.</td>
<td>Your physician should be consulted.</td>
</tr>
<tr>
<td>We will implement the project.</td>
<td>The project will be implemented.</td>
</tr>
</tbody>
</table>
# Use action verbs

<table>
<thead>
<tr>
<th>Consider</th>
<th>Give consideration to</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applies to</td>
<td>Is applicable to</td>
</tr>
<tr>
<td>Concerns</td>
<td>Is concerned with</td>
</tr>
<tr>
<td>Decide</td>
<td>Make a decision</td>
</tr>
<tr>
<td>Provide</td>
<td>Make provision for</td>
</tr>
</tbody>
</table>
Sentence & paragraph length

- Limit sentences to 20 words each.
- Limit paragraphs to six sentences each.
Writing Style & Language

• One long sentence (55 words); lots of jargon.
  ○ In order to achieve the overall goal of conducting research that contributes to evidence-based rehabilitation interventions which improve the lives of individuals with TBI, XYZ-TBI Model System is conducting two site-specific research projects, participating in three collaborative research modules, contributing to the longitudinal TBI National Database, and maintaining a TBI Model System of care and research.

• Chat
  ○ Type in a term from this sentence that might not be understood by all users.
Writing Style & Language

- One long sentence (55 words); lots of jargon.
  - In order to achieve the overall goal of conducting research that contributes to evidence-based rehabilitation interventions which improve the lives of individuals with TBI, XYZ-TBI Model System is conducting two site-specific research projects, participating in three collaborative research modules, contributing to the longitudinal TBI National Database, and maintaining a TBI Model System of care and research.
Writing Style & Language

• Shorter sentences; simpler phrases; common words.
  ○ (1) The XYZ-TBI Model System conducts research to improve the lives of individuals with TBI. (2) We are conducting two research projects at our site only (“site-specific studies”) and three research projects involving several sites (“collaborative studies”). (3) We contribute information to the TBI National Database, which collects information about the long-term consequences of TBI from Model Systems around the country. (4) We also maintain a TBI Model System of care.
Keep prose concise & objective

- Delete unnecessary words and statements that do not add information or clarity.
- Keep text objective rather than promotional in tone.
64 words with lots of promotional language

- Our commitment to having a successful program that delivers excellence of care in a cost-effective manner by always providing the most advanced rehabilitative and primary care to the individual with SCI is reflected in our accreditation by The Commission on Accreditation of Rehabilitation Facilities (CARF) as a Spinal Cord System of Care, the only civilian program in the region with that specialty accreditation.
We are accredited by the Commission on Accreditation of Rehabilitation Facilities (CARF) as a Spinal Cord System of Care. We are the only civilian program in the region with that specialty accreditation.
Discussion

- Please raise your virtual hand if you have a question or comment.
Improving User Interface

Professional & Credible

Easy to navigate website

Easy to understand information

Easy to interact with

Website Effectiveness
Improving User Interface

- Page Layout and Presentation
  - Placement
    - Place items on the page in a manner that reflects their relative importance, with more important items located at the top center.
  - Web Conventions
    - Use familiar Web conventions for placement of elements such as search functions and navigation bars.
National Spinal Cord Injury Statistical Center

The UAB Department of Physical Medicine and Rehabilitation is federally funded to operate the National Spinal Cord Injury Statistical Center (NSCISC). NSCISC supports and directs the collection, management and analysis of the world’s largest spinal cord injury database. Organizationally, NSCISC is currently at the hub of a network of 14 federally-sponsored and 3 subcontract-funded regional Model Spinal Cord Injury Systems located at major medical...
Web Conventions

Injury Center

Child Passenger Safety: Fact Sheet

Overview

Motor vehicle injuries are the leading cause of death among children in the U.S. (CDC 2006). But many of these deaths can be prevented. Placing children in age- and size-appropriate restraint systems reduces serious and fatal injuries by more than half (NHTSA 2006b).

Occurrence and Consequences

- In the United States during 2005, 1,451 children ages 14 years and younger died as occupants in motor vehicle crashes, and approximately 203,000 were injured. That’s an average of 4 deaths and 556 injuries each day (NHTSA 2006b).

- Of the children ages 0 to 14 years who were killed in motor vehicle crashes during 2005, nearly half were unrestrained (NHTSA 2006b).
Improving User Interface

- Text & Graphics
  - Use purposeful graphics only.
  - Avoid cluttered, overly dense displays.
  - Font size and style.
  - Text and background colors.
  - Text format options.
Purposeful Graphics

Human Engineering Research Laboratories
University of Pittsburgh Model Center on Spinal Cord Injury
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Phone (412) 954-5287 • Fax (412) 954-5340 • paulas@pitt.edu

University of Pittsburgh Model Center

On Spinal Cord Injury

References to Support Wheelchair Prescription | Bobby-compliant site | SCI Model Systems Research Publications
Contact info & Directions to HERL | Privacy Policy and Statement about External Links

The University of Pittsburgh Model Center on Spinal Cord Injury is funded by the National Institute on Disability and Rehabilitation Research (NIDRR), Grant number H133N060019.
User Interface Problems
Font Size and Style

- Use familiar font styles such as Times New Roman, Georgia, Arial, Helvetica or Verdana.

- Size fonts at a minimum of 12 points.
Facts about the Vegetative and Minimally Conscious States after Severe Brain Injury

Severe brain injury causes a change in consciousness. Consciousness refers to awareness of the self and the environment. Brain injury can cause a wide range of disturbances of consciousness. Some injuries are mild and may cause relatively minor changes in consciousness such as brief confusion or disorientation.

The most severe injuries cause profound disturbance of consciousness. Twenty to 40% of persons with injuries this severe do not survive. Some persons who survive have a period of time of complete unconsciousness with no awareness of themselves or the world around them. The diagnosis given these people depends on whether their eyes are always closed or whether they have periods when their eyes are open. The state of complete unconsciousness with no eye opening is called coma. The state of complete unconsciousness with some eye opening and periods of wakefulness and sleep is called the vegetative state. As people recover from severe brain injury, they usually pass through various phases of recovery. Recovery can stop at any one of these phases.
Conclusions

- Two ways to make your website more user-friendly.
  - Information Design (improve understandability)
  - User Interface (improve ability to accomplish tasks)
- Important to consider all your audiences in your design.
Please visit https://catalysttools.washington.edu/webq/survey/bmatter/68479

Provide us with feedback on the relevance of this webcast as well as suggestions about what we should address in the next webcast.
Reminder: The Webcast Series

• Using Your Website for Knowledge Translation

- Part 1: Creating User-Friendly Websites (January 27th)
- Part 2: Improving Your Websites Effectiveness (March 24th, 9:00 am PST)
  - Improve ability to find information—navigation, site-level organization, website planning and evaluation.
- Part 3: Website Accessibility: Becoming an Advocate for People with Disabilities (May 19th, 9:00 am PST)
  - Become an advocate for people with disabilities
  - Understand common accessibility problems
Discussion

- Please raise your virtual hand if you have a question or comment.
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References