



Qualitative Research Study on Haz-Map

Prepared for:

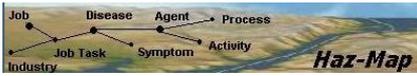


May 28, 2003

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I. Background

II. Study Objectives

III. Methodology: Online Focus Group

IV. Summary Conclusions

V. Overall Findings: Haz-Map

VI. Recommendations



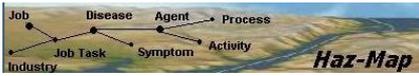
Background

In November of 2002, NLM conducted two online focus groups on Tox Town as part of a larger qualitative study on three segments of the National Library of Medicine's online information offerings. The Tox Town study had as its objective understanding how users (primarily concerned citizens and high school students) could use Tox Town to get information on health and the environment.

The purpose of the Phase II qualitative study was to gain insight from professionals in the field of occupational health to assess how they currently or would potentially use **Haz-Map**, an extensive informational database on hazardous chemicals and occupational diseases.

This research was Phase II in a three-part series of five online focus group discussions. Phase III will be comprised of two online focus groups on Household Products later in 2003.

The Phase II online focus group on Haz-Map was conducted May 20, 2003.



I. Background

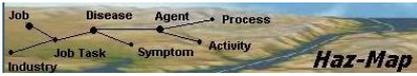
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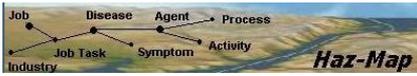
Study Objectives

The main objective of this qualitative study on Haz-Map was to gauge the opinions, attitudes, and perceptions of targeted professionals in the occupational health field to assess the Haz-Map site. More specific objectives included:

- Gaining feedback from occupational health professionals to determine if they currently are using or intend to use Haz-Map as a resource
- Evaluating reactions to content on Haz-Map
- Understanding the strengths and weaknesses of Haz-Map from a user perspective
- Assessing specific navigational issues that require change or improvement
- Determining whether the use of PDAs would enable usage of Haz-Map

Target respondents. Screening parameters for ALL respondents were as follows:

- ✓ Mix of males and females
- ✓ Are employed as professionals in the field of occupational health (occupational medicine physicians, industrial hygienists, medical librarians).
- ✓ All were asked to spend 20-30 minutes viewing/navigating the Haz-Map site, completing assigned tasks, prior to the focus group session.



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Methodology: Online Focus Group*

- Testing consisted of ONE online focus group with professionals in the field of occupational health (e.g., occupational medicine physicians, industrial hygienists, medical librarians at universities, etc.).
- Respondents were recruited initially at conferences and subsequently via e-mail.
- The session lasted approximately 75 minutes each and was comprised of 12 participants. (See Appendix.)
- All participants were asked to view Haz-Map prior to the sessions and to complete a series of tasks on the site.
- All participants received an incentive payment of \$55 (\$45 + \$10 for 15 minutes of overtime).

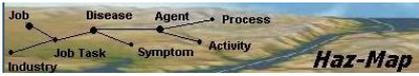
* *The online focus group represents a qualitative methodology used for the purposes of ideation, brainstorming, and evaluation. Qualitative methodologies are based on a small sample size, and the findings are intended to be directional only, not projectable to the larger population.*



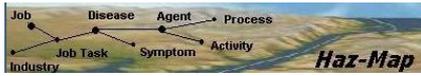
Methodology: Online Focus Group (Recruitment)

Respondent Recruitment

- The conferences used for recruiting in person were the Medical Library Association, American Industrial Hygiene Association, and the American Occupational Health Conference.
- Because of the unique nature of this recruit (i.e., face-to-face recruiting at conferences at an NLM exhibition table), enthusiasm for participation and response rates were very high. The personal nature of the initial introduction, along with the positive association professionals in the field maintain for the National Library of Medicine, offered a unique advantage to the recruitment process.
- Response rates (i.e., those who responded to the subsequent e-mail screener and qualified to participate) and show rates (those who showed up for the online focus group at the designated time) were higher than average.
- Additionally, the majority of respondents expressed interest in participating in an NIH listserv and sought out ways to maintain communication with the National Library of Medicine.



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Summary Conclusions

Impressions of Haz-Map

- Overall feedback on Haz-Map was **positive**.
- Respondents found the navigation **easy** and the content **useful**.
- Many, however, stated that Haz-Map does not provide enough depth of information and would **not** be a **stand-alone** database for professional users.
- Haz-Map's **target audience** is perceived as falling somewhere between the layperson and the occupational health professional. Several respondents felt that Haz-Map would be a good “starting point” for them (as professionals) and a good “destination point” for the layperson.



Summary Conclusions (cont'd.)

Strengths and Weaknesses

- There were several **strengths** that came out in the testing. Overall, the site is easily navigable. Respondents have had positive experiences with NIH-sponsored Web sites and use them frequently. Clear **positives** of Haz-Map included:

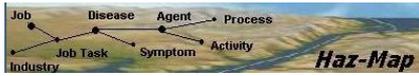
Design: Its “uncluttered” appearance and clarity/simplicity of design

Navigation: Its ease of navigation and useful content

Links: Haz-Map’s association with and/or links to (when available) other NLM resources (TOXNET, PubMed, MEDLINEplus)

Breadth of content: The wealth of information included within Haz-Map exceeded expectations. One respondent, for instance, was surprised to see information on taxidermy.

Centrality of information: The fact that these resources are available in one place (Haz-Map) served as a strength for Haz-Map.



Summary Conclusions (cont'd.)

Strengths and Weaknesses (cont'd.)

- There were several suggestions for improvement, on the other hand. **Weaknesses** of Haz-Map included:

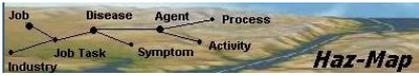
Depth of content: Many users expressed disappointment at what they **perceived** as **limitations** in content.

Unmet expectations: There was some confusion over the Haz-Map “map” logo at the top of the screen. Several users expected this map to be clickable and later discovered that it was not.

Searchability: While respondents fully appreciated the Symptom Chart and the ability to search within the database, users require greater depth (reactivity data, measurement, clinical citations, etc.) in results and/or the ability to search by manufacturer.

- Several users noted that they would like to see a “save” button and references to frequency of updates on the site.
- Another desirable feature would be an on-screen “back” button (as opposed to the browser’s “back” button) to assist navigation.

Following are additional findings from the online focus group testing on Haz-Map.



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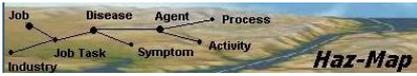
Overall Findings: Haz-Map

Patterns of Information-Gathering

- Respondents tended to access the Internet from their **homes** and in some cases their **offices** (or both).
- Journals, databases, listservs, hospital and university libraries, manuals, and the Internet were the **primary sources** of occupational health information cited.
- Several specific ONLINE sources were noted, including AIHA (American Industrial Hygiene Association), HSDB (Hazardous Substances Data Bank), NIOSH (National Institute for Safety & Occupational Health), OSHA (Occupational Safety & Health Administration), MEDLINEplus, PubMed, and TOXNET.

“Information for myself may come from the Medical Library Association or SCC/MLA or lit databases etc. Info for patrons may come from numerous sites / resources depending on the request.” (Susan)

- Some respondents explained that they simply conduct Google searches to find information on occupational health topics.



Overall Findings: Haz-Map

Patterns of Information-Gathering

- Commonly **sought-after topics** included regulatory information, health and safety information, toxicity and drug information, clinical tests, and effects of chemical exposure.
- Nearly all respondents said that they also seek out information on workplace chemicals and exposures (solvents, gases and vapors, dusts, metals); household products; pesticides; and – in a few cases – environmental health issues, such as indoor mold .

“yes environmental health as I work for the Agency for Toxic Substances and Disease Registry...not a lot on indoor air...mostly superfund and releases.” (Kim)

“Yes to IAQ [indoor air quality] but I don't usually go to NLM for that ... Usually just internet search or contacting colleagues in terms of concepts on IAQ.” (Phil)



Overall Findings: Haz-Map

Familiarity with Haz-Map

- Few respondents were familiar with Haz-Map prior to qualifying for the current study.
- Those respondents who HAD heard of or viewed Haz-Map learned about it from listservs, colleagues, and demonstrations at past conferences.

“NLM press releases and at NLM booth at Medical Library Conference” (Heather)

- One respondent who *was* familiar with the site explained how she had used Haz-Map in the past.

“I worked for a company where I was exposed to acrylonitrile and had a serious allergic reaction. The company blew it off and said it must have just been me but when I spoke to other employees a select few said the same happened to them. This database confirmed that reaction.” (Francine)

- None of the respondents had any familiarity with Dr. Jay Brown.



Overall Findings: Haz-Map

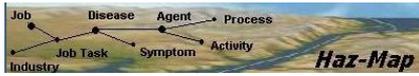
Impressions of Haz-Map

- Generally, respondents were **favorably impressed** with Haz-Map.
- Haz-Map's **strengths** lie in its **ease of navigation, breadth of content, searchability, and design simplicity.**

“Uncluttered main page; easy links to Help and glossary; Attractive graphic display. Simple to search ...” (Gerri)

“I was impressed with the volume of material available ...” (Brian)

“my overall impression is that it is fairly well designed for the lay-searcher. It gives clear broad categories that are written in clear language.” (Heather)



Overall Findings: Haz-Map

Haz-Map as a Resource

- Some respondents described Haz-Map as “basic” and “quick and dirty overview” in their initial feedback.
- Rather than being perceived as a destination source for occupational health professionals, Haz-Map was seen as a “starting point” or a **supplementary resource**.
- This perception came largely out of **limitations in content depth** (or *perceived* content depth as a result of specific navigation features, such as inability to search according to a desired format).

“More clarification on the signs and symptoms. peripheral neuropathy was a general description. some agents have specific locations they affect more than others but that distinction was not made.” (James)

“In some cases I thought that the occupation lists were too restricted -that lots of people used a chemical like n-hexane that were not listed. I also was not able to search by trade name or manufacturer.” (Cameron)

“maybe too limited, maybe some people would stop here and not look elsewhere for more information. They may be mislead into thinking that no relation exists if none is found here.” (Peter)



Overall Findings: Haz-Map

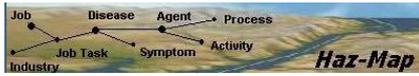
Haz-Map Content

- There was some discrepancy between expectation and reality: Respondents stated that they expected **more detail** and would like the ability to search alphabetically for occupations and symptoms.
- Some of the breadth of content was unexpected (see Phil's comment below), while in other cases the content was acceptable but limited (see Peter's comment), and in yet other cases, the content was not present at all (see Kim's comment).

"It can go off on some unusual tangents such as benzene is used for preparing and mounting the skins of animals (taxidermy)." (Phil)

"Add some depth, or links to other resources. Add dates to profiles, reactivity data, measurement data ..." (Peter)

"I tried to look up flight attendants or pilots and couldn't find this." (Kim)



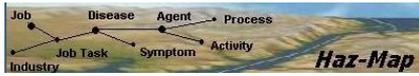
Overall Findings: Haz-Map

Haz-Map Layout/Design

- Haz-Map's **design** was seen as appealingly uncluttered and simple.
- The Haz-Map **MAP** at the top of the screen was **confusing** to several respondents and had an impact on navigation (i.e., expectation vs. reality).
- Most of those who noticed it assumed that this map would be clickable, and when they discovered that it was not clickable, the general assumption was that this was merely a “logo” or non-essential graphic.

“I thought the HazMap image at the top of the page should directly match the screens at the bottom of the page. For example, there should be a column heading for each of the links at the top of the page (job, disease, agent, process, etc.) ... there should be a column heading for each of the links at the top of the page (job, disease, agent, process, etc.)”
(Brian)

“the image at the top of the screen looks like a flow chart/image map. I kept thinking I could use it for navigation (e.g. click on ‘Job’ and go directly to job related information).”
(Heather)



Overall Findings: Haz-Map

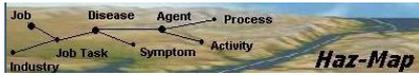
Haz-Map Language/Terminology

- On the one hand, many respondents felt strongly that the perceived lack of depth in content positioned Haz-Map as more of a consumer-based or layperson's resource.
- On the other hand, however, several noted that the terminology on the site could be potentially intimidating to a non-professional Haz-Map user. References to technical and/or industry terms could be a barrier to usage for a non-professional user.

"... I think the lay person would be thrown off or intimidated by the medical terminology." (Francine)

"The terminology and abbreviations, especially on the Agent info, can be daunting." (Susan)

- Clearly, Haz-Map has a strong appeal for the occupational health professional but is not an ultimate source or final destination for information on hazardous materials in its current iteration.



Overall Findings: Haz-Map

Information Architecture and Organization

- The organization of information on Haz-Map was perceived as **logical and intuitive**.
- Respondents noted that some industries that should be covered in greater depth include aerospace, airlines, metallurgy, refinery, and veterinary medicine.
- The **Symptom Chart** was a useful and well-understood feature of Haz-Map.

“[The symptom chart is] basically what I need for the tox exposure exams for the research lab... It'd be a good ‘jump off’ point to go from what you see to what might have caused it.” (Jim)

“useful to begin the rule-out process, when the same thing can be caused by several agents” (Sarah)

“It gave basic symptoms in simple language. It gave a reasonable amount of information on one screen.” (Heather)



Overall Findings: Haz-Map

Haz-Map Navigation

- The **Haz-Map navigation** presented few serious difficulties for respondents. Some exceptions included the need for more complex searches, cross-references (e.g., job title and symptom), clickable graphics (e.g., the Haz-Map Map), and/or more extensive links to other resources.
- Additionally, desirable search techniques include the ability to search alphabetically (for symptoms) and the ability to search by “trade name or manufacturer.”

“the ability to locate job titles was cumbersome for the symptom based search. Job groups had to be scrolled thru and could not search by the alphabet when matching jobs and symptoms. Also the matches had to be exact.” (James)

- In contrast to TOXNET, Haz-Map was perceived as more basic and less thorough, though valuable as a starting point.

“This database seems to provide suggestions for issues to look for in industry. Then once you have a chemical of interest, I would go to the NIOSH Pocket Guide online or ATSDR, then to HSDB for detailed chem info.” (Phil)



Overall Findings: Haz-Map

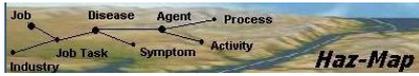
Haz-Map Name

- Reactions to the name “Haz-Map” were almost unanimously positive.
- The similarity to the term “haz-mat” strengthened the appeal, and the reference to a “map” reinforced the concept of a “clickable map” at the top of the screen.
- Only one user clearly stated a dislike for the name (see Francine’s comment).

“... the ‘Map’ made me think the graphic at the top would link.” (Gerri)

“‘Map’ to me connotes GIS data--so I thought I was going to see, oh, toxics in neighborhoods and things like that.” (Sarah)

“no, I did not like the name. It is too close to HazMat which in my business makes me think of responding to Hazardous Material Spills like tank trucks etc.” (Francine)



Overall Findings: Haz-Map

Haz-Map via PDA

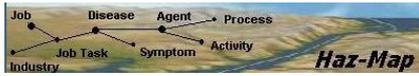
- Reactions to the concept of Haz-Map on a PDA were mixed.
- Several respondents do not use PDAs. Feedback from those who do use them varied from skepticism to enthusiasm.
- Some doubted that a PDA could contain the amount of data in Haz-Map.

“No. However, the new tablet PCs look interesting to me. Combined with wireless Internet, this seems the way to go. The PDA screens are too small for good display of information.” (Peter)

“I’m not sure how useful all ALL the information would be on a PDA. The most affordable don't have a tremendous amount of memory.”
(Heather)

“ACMT has something like this right now...a tox type program for PDA.” (Kim)

“Yes!--but would it require wireless? Or would the whole database fit?” (Sarah)



Overall Findings: Haz-Map

Anticipated Usage

- Respondents responded favorably to the site and anticipate using Haz-Map frequently in the future. There is also a strong likelihood that respondents will recommend Haz-Map to colleagues, co-workers, and clients.

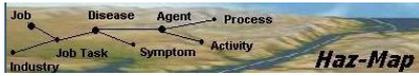
“Yes. I will be adding it to my resources for docs and public health officials.” (Susan)

“I would recommend it to colleagues who do compliance assessments of industries. It will give a decent background of stuff to think about.” (Phil)

- While some respondents noted drawbacks to the format, there was a strong appeal from others to the idea of accessing Haz-Map on a CD.

“I don't like CDs--impossible to network, difficult to archive, slow compared to the web for many of our users.” (Sarah)

“CD would be cool if it's on CD like the Pocket Guide.” (Phil)



Overall Findings: Haz-Map

Providing Feedback and Interest in Listserv

- There was a high comfort level with the online focus group format as a method of providing feedback. Many also said they are comfortable with e-mail or listservs.

“... I liked the online group because it helped me remember things that I was also thinking ...I enjoyed the focus group and will recommend this and other NLM resources to friends and co-workers” (Francine)

“This online discussion was great -- interesting to see what others think. Otherwise by e-mail or Web-based questionnaires.” (Gerri)

- There was a strong interest in listserv participation. Many respondents requested additional information.



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Recommendations

Recommendations and Next Steps

- Provide search functionality that allows cross-referencing of job titles and symptoms.
- Offer the ability to SAVE information retrieved via search. If possible, include a “back” button to aid in navigation.
- Include information on recency of data and information (i.e., date last updated, etc.).
- Include information on currently-underrepresented industries, such as aerospace, airlines, and metallurgy.
- Make frequently-updated CDs of the Haz-Map database available to interested site visitors.
- Clarify the purpose of the graphical “map” at the top of the screen. Align performance with expectation, if possible (adding clickability to the graphic).
- Add “Search PubMed” or “Search MEDLINEplus” in a similar way to the current “Search TOXNET.”
- Offer additional links to other NIH resources.



Appendix: - Respondent Profile



Appendix: Respondent Profile

Participant	Name	Age	City, State	Occupation
1	Brian	32	Rockville, MD	Environmental health officer
2	Buck	55	Seattle, WA	Industrial hygienist
3	Francine	32	Baton Rouge, LA	Regional loss control manager for gas company
4	Gerri	51	Madison, WI	Coordinator, Pharmacy Library at UW-Madison
5	Heather	37	Stillwater, OK	Academic Veterinary Medicine Librarian
6	James_	46	Toledo, OH	Occupational Medicine Physician
7	Jim	50	Peoria, IL	Physician and OEM boarded
8	Kim	39	Atlanta, GA	Occupational Medicine Physician
9	Peter	49	Northridge, CA	Professor
10	Phil	41	Boston, MA	Industrial Hygienist
11	Sarah	31	Pullman, WA	Librarian
12	Susan	36	Little Rock, AR	Medical Librarian



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Report of Findings

Qualitative Study

**NIH/SIS
on Tox Town**

November 5, 2002

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Objectives

The main objective of the qualitative study on Tox Town was to gauge the opinions, attitudes, and perceptions of targeted users to assess the site within the context of concerns related to how the environment impacts health. Using an online focus group methodology, the following areas were explored:

- To gauge how users perceive the “image” Tox Town presents (e.g., perceived audience)
- To assess how users seek out information regarding health and the environment online
- To understand what Tox Town features deliver the highest value to users
- To determine how Tox Town can better serve the needs of users concerned with health and the environment

Methodology: Online Focus Group

- Testing consisted of two online focus groups with: a) high school students; b) concerned citizens.
- Respondents were recruited via telephone according to specific screening parameters.
- The sessions lasted approximately 60 minutes each and were comprised of 9-13 participants. (See Appendix.)
- All participants were asked to view Tox Town prior to the sessions and to complete a series of tasks on the site.
- All participants received an incentive payment of \$40.

Methodology: Target Respondents

- **Screening parameters for ALL qualifying participants were as follows:**
 - ✓ Mix of males and females
 - ✓ Use Internet minimum of five (5) hours per week for purposes other than e-mail
 - ✓ No household member employed in advertising, marketing, public relations, or Web design/development
 - ✓ Have not participated in research study in the past six months
 - ✓ All express AT LEAST a MILD interest in how the environment affects health
 - ✓ All were asked to spend 20-30 minutes viewing/navigating the Tox Town site prior to the focus group sessions, completing a series of assigned tasks along the way.

Methodology: Target Respondents (Additional criteria)

- **Additional parameters for specific categories of participants were as follows:**

STUDENTS

- ✓ High school students (grades 9-12)
- ✓ Ages 14-18

CITIZENS

- ✓ High school students (grades 9-12)
- ✓ Ages 21 or older
- ✓ All express a **STRONG** interest in how the environment affects health
- ✓ At least **1/2** actively participate in community or national activities related to environmental/global health

Findings

Findings

❖ *Internet Access and Usage*

- The majority of respondents in both the teen and citizen groups access the Internet from HOME and use a PC (vs. a Macintosh).
- Among the teen group, broadband access is more common than among the citizen category, which represents DSL, cable, and many 56K connections (dial-up).
- Additionally, the majority of users browse the Internet using Internet Explorer (some with Flash; others installed Flash for this discussion group).
- Searches on the Web typically begin with Google, or one of the other popular search engines (portals), such as Yahoo.

Findings

❖ *Seeking Information*

- When it comes to health information, the majority of respondents mentioned WebMD as the primary source of information online.
- Additional sources include Discovery Health, Mayo Web site, doctors, books, magazines, and television.

Findings

❖ *Seeking Information*

- Specifically for environmental health information, the STUDENTS typically seek out information using search engines (e.g., Google, Yahoo, occasionally Greenpeace or a news site such as NYTimes.com or CNN.com).
- CITIZENS mention Medline, the EPA Web site, Newsweek, nypirg.org, care2.com, and also the EPA site.
- Several in the CITIZENS group had environmental health concerns specific to them, such as allergies, asthma, and other region-based ailments and concerns.

Findings

❖ *TOX TOWN*

- Few respondents had difficulty viewing the Tox Town site. Most either *had* Flash installed in the browser they used to view the site, OR installed Flash specifically to view the site.
- For some (a minority), the links did not operate properly, likely due to a non-functioning browser or the absence of the Flash plug-in.

Findings

❖ *TOX TOWN*

- First reactions to Tox Town were positive: Most (in both groups) felt that the site was easily navigable, high in valuable content, and accessible. Primary complaints were visual [such as font size (too small)] and design-related (background color).
- Strengths: Information breadth, navigability, ease of use, sounds, graphics
- Weaknesses: “Dark text,” lack of a “local reference,” small font size (hard to read), and “too many” links (Some who had difficulty with links – i.e., Flash – had difficulty getting “outside” of Tox Town.)

Findings

❖ *TOX TOWN*

- Most felt that the design of Tox Town represented a “middle America” suburb.
- Additional “locations” included malls, beach/ocean environments, lakes, farms, coral reefs, and rain forests.
- **The “audience” for Tox Town, according to respondent, appears to be “everybody” – not necessarily a teen or exclusively youthful audience. Some said it appears to be geared toward parents who are concerned about their children.**
- **Some in the TEEN group felt the design was “childish,” because it’s “easy on the eyes” and “filled with info.”**
- **Other “audiences” mentioned included “blue collar,” baby boomers, white middle-class, and mid-America.**

Findings

❖ *TOX TOWN*

- Interestingly, one respondent in the CITIZEN group said that Tox Town seems “threatening in a friendly way.”
- While the name was appealing to most, one respondent in the TEEN group suggested that the word “Town” is limiting for an expansion of the site in the future. One respondent in the CITIZEN group suggested “Viral Village.”
- **Suggestions for improvements included adding weekly updates, “cause and effect” data, local information, environmental “incidents” and how they were handled, and daily ozone reports.**
- **Incidentally, some of this information could serve as primary fodder for return visits, according to many respondents.**

Findings

❖ *Incentives for Return Visitation*

- Many respondents state that they WILL return to Tox Town.
- Some offer reasons such as interest in monitoring its progress, to see “how it grows,” and to get information on, for instance, water quality and pesticides.
- Other respondents suggest including a “getting involved” area that might encourage return visitation among those who are on the border of activism (or already actively involved in environment activities).

Findings

❖ *Improvements/Recommendations*

- Design-wise, the primary improvements center around visuals that enable ease of navigation, such as larger fonts (for readability) and color combinations (fonts on background) that reduce eye strain.
- Overall, the *theme* of the site is agreeable to respondents, and
- Many of the students suggested adding games to the site to encourage return visitation. Suggestions include quiz shows, trivia games, interactive games, or a game that allows the participant to “clean up the town.”

Findings

❖ *Final Thoughts/Suggestions*

- Overall, Tox Town was received positively by both groups.
- Suggested improvements are primarily **design** related (e.g., increased font, easily readable print on background).
- **Content** changes might encourage return visitation, such as adding GAMES, weekly or daily UPDATES, and LOCAL or REGIONAL information on the environment.
- The Tox Town site is generally perceived as a site that is applicable across ages – with wide enough appeal based on the “appropriate” content (see suggested additions).
- Generally, the site performed well both functionally and aesthetically.

Appendix: Participant Grids

Participants: TEENS

Participant	Name	Gender	Age	Grade in school	City, State
1	Andrew	M	14	9 th grade	New York, NY
2	Gary	M	15	10 th grade	Windsor, NY
3	Jennifer	F	15	10 th grade	Huntington, WV
4	Marcus	M	14	9 th grade	Foxboro, MA
5	Marissa	F	13	9 th grade	Clearwater, FL
6	Marley	F	15	10 th grade	New York, NY
7	Nicole	F	17	12 th grade	Brooklyn, NY
8	Steven	M	17	12 th grade	Richmond, VA
9	Zach	M	15	10 th grade	New York, NY

Participants: Concerned Citizens

Participant	Name	Age	City, State	Occupation
1	Brad	28	Charleston, SC	Doctor (ENT)
2	DavidN	50	West Roxbury, MA	Title examiner
3	DavidP	55	Oxford, CT	Writer
4	Doug	34	Austin, TX	Science teacher (& freelance naturalist)
5	Dusty	51	Clearwater, FL	Vendor rep, computer industry
6	Elaine	48	Foxborough, MA	Receptionist
7	James	36	Austin, TX	Researcher
8	Laurence	50	New York, NY	Psychologist
9	Rich	54	Atlantic City, NJ	Real estate property manager
10	Robert	26	Austin, TX	Office manager, CPA
11	Sabrina	33	Houston, TX	Librarian
12	Shana	36	Austin, TX	Engineer
13	Susan	60	Spokane, WA	Homemaker (retired)

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Household Products Database

Qualitative Research Study on Household Products database

Prepared for:



August 25, 2003

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I. Background

II. Study Objectives

III. Methodology: Online Focus Group

IV. Summary Conclusions

V. Overall Findings: Household Products

VI. Recommendations

As part of an ongoing qualitative evaluation of NLM databases (including Tox Town and Haz-Map), NLM conducted two online focus groups on the Household Products database – one of the National Library of Medicine’s online information offerings. The Household Products database study had as its objective understanding how users (both consumer- and professional-level users) use the database to get information on indoor and outdoor household products.

This research completed a three-part series of five online focus group discussions that occurred in 2003.

The Phase III online focus groups on Household Products was conducted on August 12, 2003.

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Study Objectives

The main objective of this qualitative study on the Household Products database Web site was to gauge the opinions, perceptions, and usage patterns of general consumers and targeted health professionals to assess the Household Products database. More specific objectives included:

- Gaining feedback from health professionals to determine if they currently use or intend to use the Household Products database as a professional resource
- Understanding the strengths and weaknesses of the Household Products database from all user perspectives (professional and consumer)
- Assessing specific navigational issues that require change or improvement

Target respondents. Screening parameters for respondents were as follows:

- ✓ Mix of males and females
- ✓ Are employed as professionals in health or industrial health field (Professional group only).
- ✓ Primary or shared purchaser of at least two categories of household products (Consumer group)
- ✓ Read directions on household products and follow them carefully (Consumer group)
- ✓ Completed high school (Consumer group)
- ✓ All were asked to spend 20-30 minutes viewing/navigating the Household Products database, completing assigned tasks, prior to the focus group session.

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Methodology: Online Focus Group*

- Testing consisted of TWO online focus groups (one group of health professionals and one group of consumers who were primary or shared shoppers for indoor/outdoor household products)
- Respondents for the Professional group were recruited initially at conferences and subsequently via e-mail, while respondents for the Consumer group were screened and recruited via telephone.
- The session lasted approximately 75 minutes each and was comprised of between 8 and 13 participants. (See Appendix.)
- All participants were asked to view the Household Products database prior to the sessions and to complete a series of tasks on the site.
- All participants received an incentive payment of \$45.

* *The online focus group represents a qualitative methodology used for the purposes of ideation, brainstorming, and evaluation. Qualitative methodologies are based on a small sample size, and the findings are intended to be directional only, not projectable to the larger population.*

Recruitment of Respondents in the PROFESSIONAL group

- Recruiting for the Professional group was conducted via listserv postings (primarily on Occ-Env-Med-L and NLM Tox-Enviro-Health-L).
- As with Haz-Map recruiting (which occurred almost exclusively via conferences), recruiting for the Household Products online focus group with Professionals was unique in the sense that it was branded as a study for the NLM, which immediately validates the study as reputable (because of positive relationships professionals share with the organization) and significantly improves response rates.
- Response rates (i.e., those who responded to the subsequent e-mail screener and qualified to participate) and show rates (those who showed up for the online focus group at the designated time) were higher than average.

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Initial Impressions of the Household Products Database Web site

- Feedback on the Household Products database was generally **positive**.
- Respondents found the database very easy to use.
- While both groups (Consumer and Professional) found the database useful, more respondents in the Professional group felt that the site lacked some relevant information.
- Some respondents in the Professional group felt that the database appears unfinished.
- Anticipated usage-(in both groups) was high. Professionals expected to use the database for both work-related and personal activities, while consumers fully expect to use the database to help them in their household product purchase decisions.

Strengths and Weaknesses

- Some of the **strengths** of the Household Products database included the following:

Navigation: Ease of navigation, easy search capability

Design: Lack of clutter; minimal graphics that might otherwise take away from the information primacy

Links: Access to other resources (NLM, MSDS, etc.)

Content: “Unique” information hard to find elsewhere in great detail.
Perceived as good “starting point” for consumers.

Strengths and Weaknesses (cont'd.)

- Some areas of the Household Products database that require improvement included:
 - Limited household products listings:** Users asserted that more comprehensive product listings were required.
 - Categorization:** Reactions were mixed regarding accuracy of categorization. Interpretations of category may vary by respondent and product usage.
 - Searchability:** There was some need for a cross-searching and cross-referencing capability within the database (e.g., search by manufacturer, search by usage).
 - Purpose:** Appeal to consumer base was clear; perceived value for professionals was evident; extent of value, however, was uncertain to some. Some felt that a disclaimer (“in case of an emergency, call...”) was required.
- Several respondents in the **Professional** group identified limitations that resulted in the perception that the database is not currently comprehensive enough to serve as a stand-alone resource.

Following are additional findings from the online focus group testing on the Household Products database.

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Seeking Information

- Most respondents access the Internet from their homes, using search portals (primarily Google or Yahoo) as starting points.
- **Consumers** also reported accessing information from newspapers, physicians, and television and radio media.
- Within the **Professional** group sources of work-related information included the journals, books, and online resources such as SciFinder, PubMed, and various government and industry sites (including NLM resources).
- **Professionals** said they tend to seek out information on product toxicity, chemicals, and regulatory information.

“Beryllium, asbestos, ergonomics, unions, labor, etc.”
(**Richard**, Professional group)

“I have frequently needed info on household products and products for commercial use ... I frequently need info on fragrance-free products, less toxic alternatives, ingredients, particularly access to inerts.” (**Mary**, Professional group)

Overall Findings: Household Products

Household Product Selection

- Consumers reported that they typically purchase household products that they know well or have used regularly in the past. Some noted that one of the defining factors in their purchases is whether or not the item is “on sale.” Others explained that they watch for “any irritations” and “pet safety.”
- Though few in the **Consumer** group read the labels very carefully, they reported an awareness of warning labels that are noted on product labels. Concerns arose where children or pets are in the household.

“If I am concerned about a product, I just don't buy it anymore and tell friends and family to do the same.”
(Jan, Consumer group)

“I checked on a Raid Product once for pet safety ... Went to the Raid Homepage once and ended up making a phone call” (Kraig, Consumer group)

Overall Findings: Household Products

Familiarity with and Need for the Household Products Database

- Familiarity with the Household Products database was low in both the **Consumer** and **Professional** groups. There was no direct point of comparison to the database, either, since few in either group had seen similar databases that addressed details about the contents of Household Products.
- There was, however, recognition of a **clear need** for such a database on both levels, though the need for a consumer-oriented database was particularly notable. Some expressed a necessity for consumers to have a way to educate themselves about household product safety.

“With all the different chemicals out there people need to know if there are any side effects to certain products and the combination of different products when used together.” (Jan, Consumer group)

“the manufacturer isn't going to tell you any more than they legally have to. They don't care about the consumer, just selling products.” (Paul, Consumer group)

Overall Findings: Household Products

Impressions of the Household Products database

- Respondents in the **Consumer** group reacted positively to the Household Products database. Likewise, individuals in the **Professional** group found many strengths in the database but were more critical of its weaknesses as a viable stand-alone source of information.
- From a **Consumer** perspective, some **strengths** of the database were its ease of navigation and level of detail in information.

“it was very easy to navigate, everything I tried could be found with the quicksearch on the home page” (**Paul**, Consumer group)

“Fast to find what you needed and there seemed to be a lot of information about different products” (**Jan**, Consumer group)

“You can find information that’s not on the product.”
(**Henry**, Consumer group)

Overall Findings: Household Products

Impressions of the Household Products database

- Respondents in the **Professional** group also had positive reactions to the Household Products database, but several felt that it was geared primarily toward a consumer audience, due to its limitations for the professional user.

“seems more appropriate for the at-home person rather than the professional at work. but still could be useful to IH types ... it seemed that more of the products for which info was available were the types of things in my garage or under the sink as opposed to some of the production chemicals at my workplace.”
(**Charles**, Professional group)

“It does not include a broad range of products that would be used by patients and professionals I work with. It also seems incomplete in its lists of ingredients. Difficult to pull up MSDS by effects only.”
(**Mary**, Professional group)

Overall Findings: Household Products

Impressions of the Household Products database

- On the other hand, several respondents in the **Professional** group felt that changes or additions to the database could add greater relevance to the professional user in addition to their consumer counterpart.

“mostly for consumers but could be equally valuable to EHS professionals.” (Raul, Professional group)

-

Overall Findings: Household Products

The Question of Household Product Safety

- The question of how consumers or any user in general might interpret the information emerged during the **Professional** group discussion. As a result, the need for **clarification of purpose and intent** also emerged as a potential change to the presentation of information in the Household Products database.

“Are consumers going to use such a database unless they have a problem? In that case, does it really have sufficient info. The people I know who would actively look for such info are usually looking for ‘safer’ products. Not sure that this database is of value in that effort.” (**Mary**, Professional group)

“It seems to me one cannot guarantee anything is safe. What this Web site can do, however, is enable people who have questions to start getting answers with which they will make informed choices as consumers, if the health hazard information even matters to them at all. They may well look at the risks and say ok I'll use that anyway.” (**Ilise**, Professional group)

Overall Findings: Household Products

Clarification

- There was a need for greater clarity that the Household Products database should not be used for emergencies.
- In a larger context, the purpose of database could be made more clear for those consumers who might not otherwise know or who might misinterpret the information.

“I think a person with only a small understanding of this field, as a consumer, turning to a government web page with a poison center reference might mistake this for emergency help. Why take that risk? Make it clear this is not for emergencies.” (**Ilise**, Professional group)

“... perhaps there should be a disclaimer at the beginning saying something like they do at Doc's offices... ‘if this is a medical emergency,’ etc.” (**Aileen**, Professional group)

“make it clear this is not ‘consumer reports’ type info.” (**Raul**, Professional group)

Overall Findings: Household Products

Suggested Changes: Limitations in Selections

- Other suggested improvements to the database included broadening the **selection of products** for which detailed information is offered. Respondents had difficulty finding everyday household products.

“the product listings are somewhat lacking in certain areas. I found three different febreze products, but not the one I was looking for.” (Paul, Consumer group)

“The product search needs to have more items in it. I looked for Ajax and couldn't find it under the manufacturers name.” (Jan, Consumer group)

Overall Findings: Household Products

Suggested Changes: Organization of Information

- Additionally, some confusion emerged in both groups regarding categorization of information. Respondents in the **Professional** group articulated this confusion clearly.

“I didn't think that there were natural categories for search: distinctions between types of soap or cleansers were both confusing and limiting. Why for example, were the aloe-containing products not available as a complete group when you wanted to know what contained aloe?” (**Mary**, Professional group)

“Some of the categories are confusing. Is Elmers Wood Glue a home maintenance product or a hobby product? I'd have fungicides, pesticides, herbicides and fertilizers listed in landscape/yard. That kind of thing...” (**Leslie**, Professional group)

- Patterns of confusion in the **Consumer** group primarily took the form of difficulty in finding certain products (which users interpreted as “not enough” product selection) – a navigational weakness that, in fact, could be addressed with a reorganization and/or cross-referencing of the data.

“I would list manufacturers (Like Gillette) and list all of there products under one heading.” (**Joyce**, Consumer group)

Overall Findings: Household Products

Household Products Database Design/Layout

- The design and layout of the Household Products database was appealing to respondents in both groups. The absence of heavy graphics served as a boon to navigability of the database and easy retrieval of information.

“didn’t have anything on there to draw your attention away from the info.” (**Jenni**, Consumer group)

“Yes. Keep it simple so it doesn't take hours to download.” (**Leslie**, Professional group)

Overall Findings: Household Products

Understanding of MSDS

- With few exceptions, most respondents in the **Professional** group understood MSDS. Several, however, questioned whether consumers would understand MSDS.

“I am intrigued by the notion that to some extent manufacturers might want to post their MSDS here as a form of product placement. If for example, I want a paint with fewer risks from a particular component to which I am allergic ... I will pick one that seems to be safer for my needs from this NIH government list, not some list in a paint store. Perhaps for this reason there should be a short section explaining how to read MSDS.” (Ilise, Professional group)

- Respondents in the Consumer group, as it turned out, had mixed reactions to MSDS. Some appeared to understand what MSDS was, while others guessed, and still others learned about it from the Household Products database.

“I’m not positive. I remember learning it in chemistry in high school, don’t remember what it is though.” (Paul, Consumer group)

“I assumed that the MSDS comes from the government” (Jan, Consumer group)

Overall Findings: Household Products

Anticipated Usage

- The majority of respondents in both groups anticipated using the Household Products database in the future. Some explained that they will recommend it to their colleagues, clients, students, and colleagues, while consumers planned to use it and share it with friends and family.

“if a patient was allergic to something - they could check the site to find products that do not contain it. Or if a client was interested in knowing how to use products to minimize exposures to something.”
(**Teresa**, Professional group)

“I would recommend it to relatives and friends with younger children” (**Kraig**, Consumer group)

“we have children and have many relatives with 26 kids so I think this site will be very helpful.” (**Tammie**, Consumer group)

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Recommendations and Next Steps

- Add brand name and generic products to product listing, if possible.
- Clarify the *purpose* of the database (i.e., not to be used in emergency situations).
- Clarify that the database is NOT indicating safety levels to consumers or recommending usage.
- Highlight the benefits of using the search tool. Several respondents noted that the search functionality was the easiest and most efficient way to retrieve relevant information.
- Cross-reference the information in the database, if possible (e.g., search by manufacturer name; search by chemical; search by household product name)
- Alternate tab colors or design for greater distinction.
- Link the database to relevant consumer and professional sources (e.g., mainstream media, industry resources).
- Make the database more visible to the general public; increase awareness of the Household Products database as a viable source of non-emergency information.

Appendix: - Respondent Profiles

Appendix: Respondent Profile of Professionals

Participant	Name	Age	Gender	City, State	Occupation
1	Aileen	48	F	Seattle, WA	Asthma and Environmental Health Program Manager, American Lung Association
2	Charles	28	M	Columbia, MO	Industrial hygienist
3	Chihae	49	F	Columbus, OH	Director of computational toxicology
4	Elizabeth	53	F	Orrington, ME	Professor of Nursing
5	Ilise	45	F	Haddonfield, NJ	Law teacher & public health professional
6	Leslie	44	F	Lafayette, IN	Owner, IH consulting firm
7	Mary	52	F	Voorhees, NJ	Director, Environmental health organization
8	Nancy	49	F	Corvallis, OR	Professor in toxicology
9	Raul	57	M	Miami, FL	University of Miami, IH/Safety consultant
10	Rebecca	52	F	Baltimore, MD	Industrial Hygienist, R.N.
11	Richard	58	M	Yorba Linda, CA	Occupational medicine physician
12	Teresa	53	F	Baltimore, MD	R.N., IH, Family Nurse Pract. student
13	Vicki	39	F	Los Angeles, CA	Risk Management & IH



Appendix: Respondent Profile of Consumers

Participant	Name	Age or age range	Gender	City, State	Occupation
1	Henry	49	M	Seattle, WA	Unemployed assembler installer
2	Jamie	32	M	Akron, OH	Sales
3	Jan	50	F	Miles City, MT	School bus driver
4	Jenni	18-24	F	Scott City, KS	N/A
5	Joyce	65	F	Malden, MA	Retired
6	Kraig	49	M	Tacoma, WA	Active duty military
7	Paul	25-34	M	Binghamton, NY	N/A
8	Tammie	35-44	F	Troy, NH	N/A

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