Libraries: meeting the needs of today's users

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A place?
A service?

In whose opinion?

How do we know the needs?

How do we know who they are?

How well did we meet them yesterday?
How will we do better tomorrow?

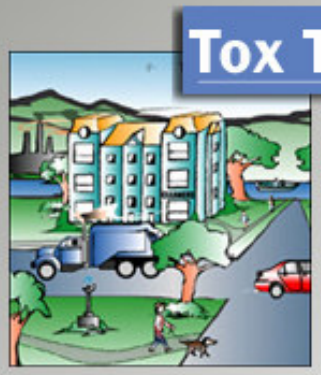
Library: place or a service?

United States
National Library of Medicine
National Institutes of Health

Library: place or service?

Genetics Home Reference

MedlinePlus®
Trusted Health Information for You



PubMed

NIH SeniorHealth

ClinicalTrials.gov

Household Products Database

MedlinePlus®
Información de Salud para Usted

PubMed Central

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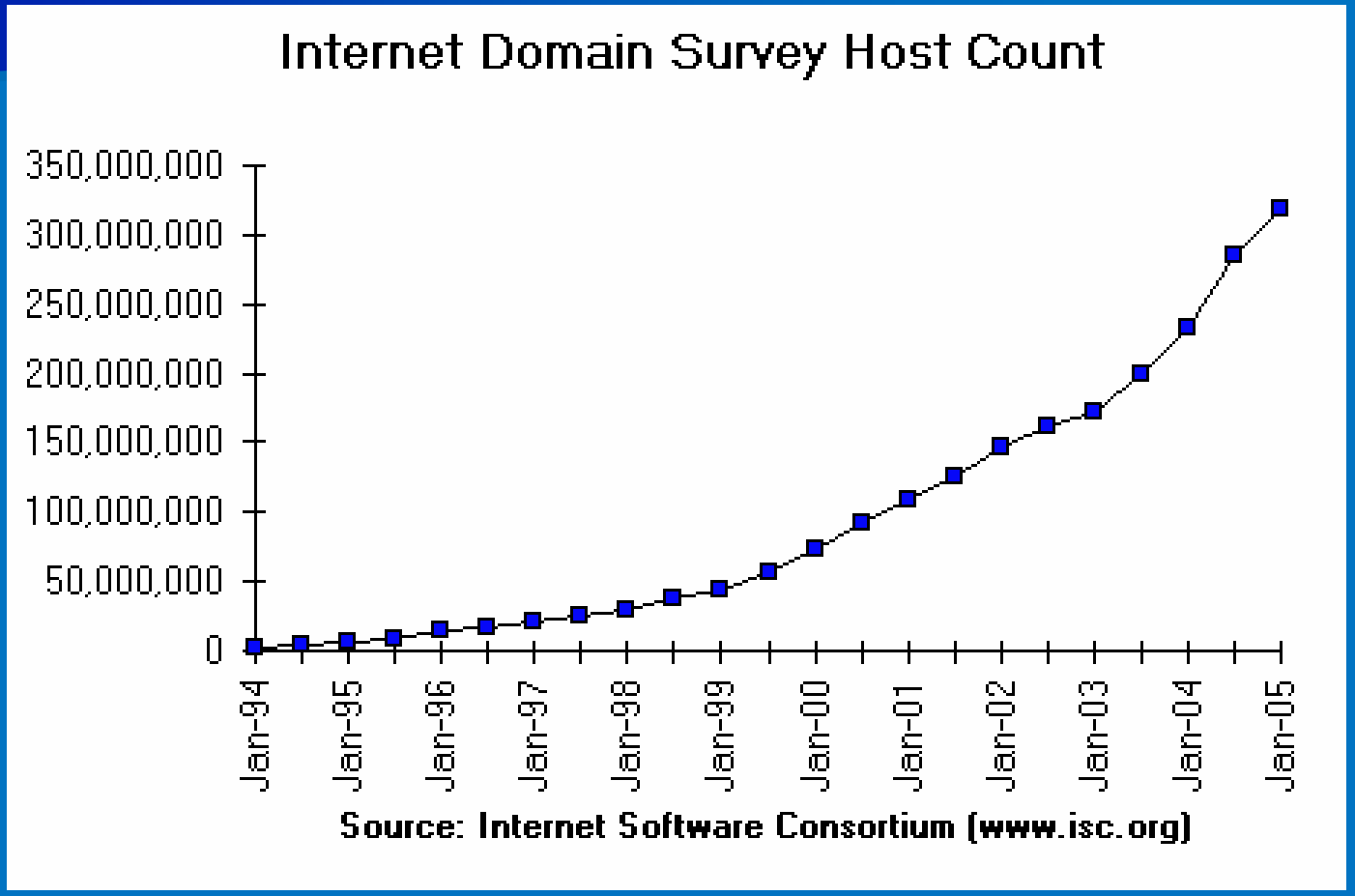
Internet growing



Top 15 Countries in Internet Use		
Year-end 2004	Internet Users (000s)	Share %
1. U.S.	185,550	19.86
2. China	99,800	10.68
3. Japan	78,050	8.35
4. Germany	41,880	4.48
5. India	36,970	3.96
6. UK	33,110	3.54
7. South Korea	31,670	3.39
8. Italy	25,530	2.73
9. France	25,470	2.73
10. Brazil	22,320	2.39
11. Russia	21,230	2.27
12. Canada	20,450	2.19
13. Mexico	13,880	1.49
14. Spain	13,440	1.44
15. Australia	13,010	1.39
Top 15 Countries	662,360	70.88
Worldwide Total	934,480	100

The worldwide number of Internet users will reach nearly 935 million in 2004 and **will top 1 billion in mid 2005**.

Source: Computer Industries Almanac, Inc http://www.c-i-a.com/pr0904.htm

PubMed use by country

May 2005	Visits (000s)	Share %
1. United States	122,556	46.54
2. Japan	16,283	6.18
3. United Kingdom	12,771	4.85
4. Germany	10,401	3.95
5. Canada	9,761	3.71
6. France	8,710	3.31
7. China	7,119	2.70
8. Italy	6,187	2.35
9. Australia	5,903	2.24
10. South Korea	5,902	2.24
11. Brazil	5,382	2.04
12. Taiwan	4,722	1.79
13. Spain	4,626	1.76
14. Netherlands	4,391	1.67
15. Sweden	3,447	1.31
Top 15 Countries	228,160	86.64
Worldwide Total Visits	263,339	100

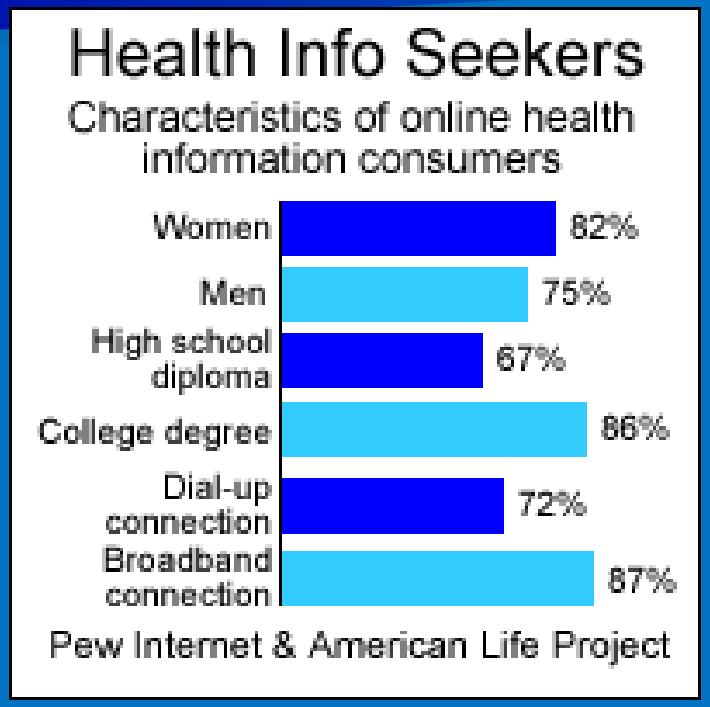
MedlinePlus use by country

2004	Visits (000s)	Share %
1. United States	60,514	73.47
2. Canada	4,379	5.32
3. United Kingdom	4,226	5.13
4. Australia	2,120	2.57
5. Spain	752	0.91
6. Mexico	642	0.78
7. Uruguay	589	0.71
8. India	561	0.68
9. Philippines	423	0.51
10. Germany	417	0.51
11. Singapore	372	0.45
12. Netherlands	343	0.42
13. Western Europe - unspecified	330	0.40
14. New Zealand	283	0.34
15. Japan	254	0.31
Top 15 Countries	76,203	92.52
Worldwide Total Visits	82,362	100

MedlinePlus en español use by country

Visits in 2004	Visits (000s)	Share %
1. Spain	3,442	18.90
2. Mexico	3,039	16.69
3. Uruguay	3,006	16.51
4. United States	1,774	9.74
5. Chile	1,217	6.68
6. Peru	1,067	5.86
7. Argentina	856	4.70
8. Colombia	765	4.20
9. Venezuela	631	3.46
10. Bolivia	318	1.74
11. Brazil	284	1.56
12. Puerto Rico	238	1.30
13. Ecuador	167	0.92
14. Dominican Republic	164	0.90
15. Costa Rica	129	0.71
Top 15 Countries	17,096	93.86
Worldwide Total Visits	18,214	100

Who are the users?
Health Information Seeking Americans



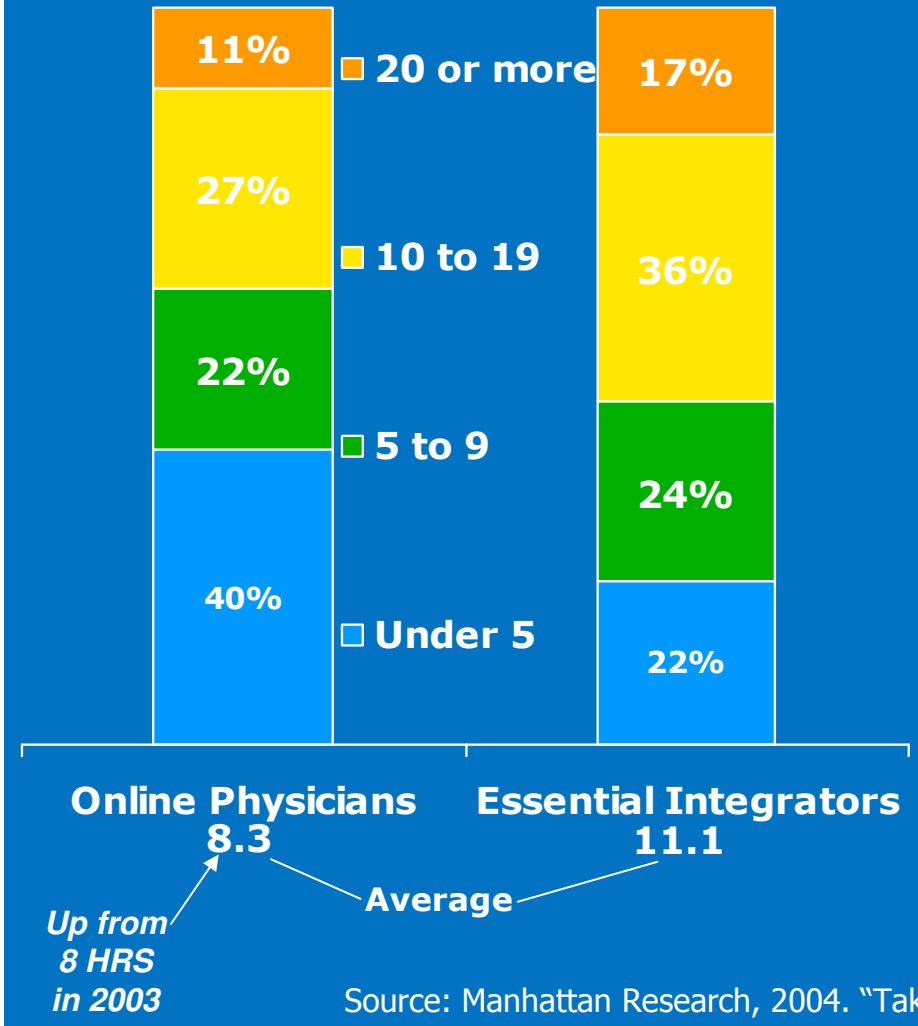
The internet has become the "new normal" in the American way of life; those who don't go online constitute an ever-shrinking minority.

Source: Pew Internet and American Life Project, Trends 2005, http://pewresearch.org/trends/trends2005.pdf

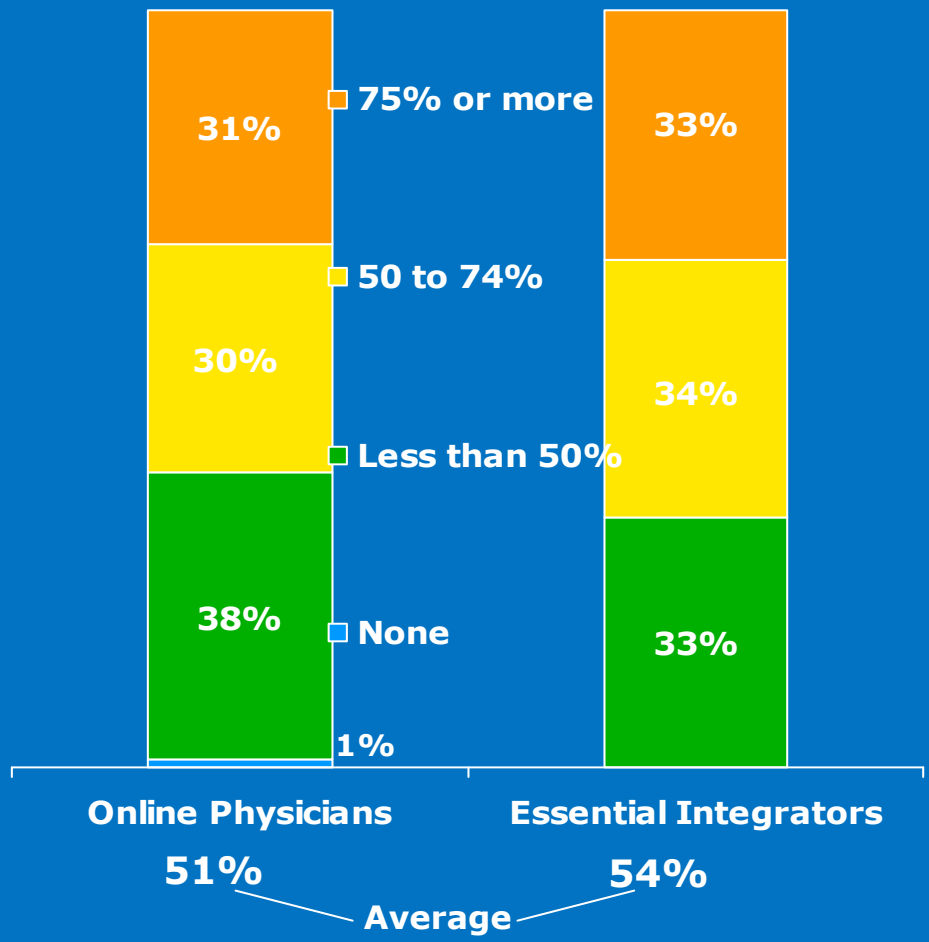
Physician Hours Online Per Week

Online physicians - The universe of practicing physicians in the United States today.
Essential Integrators: Online physicians who Strongly Agree/Agree the Internet is "essential" to their practice

How Many Hours Do You Spend Online?

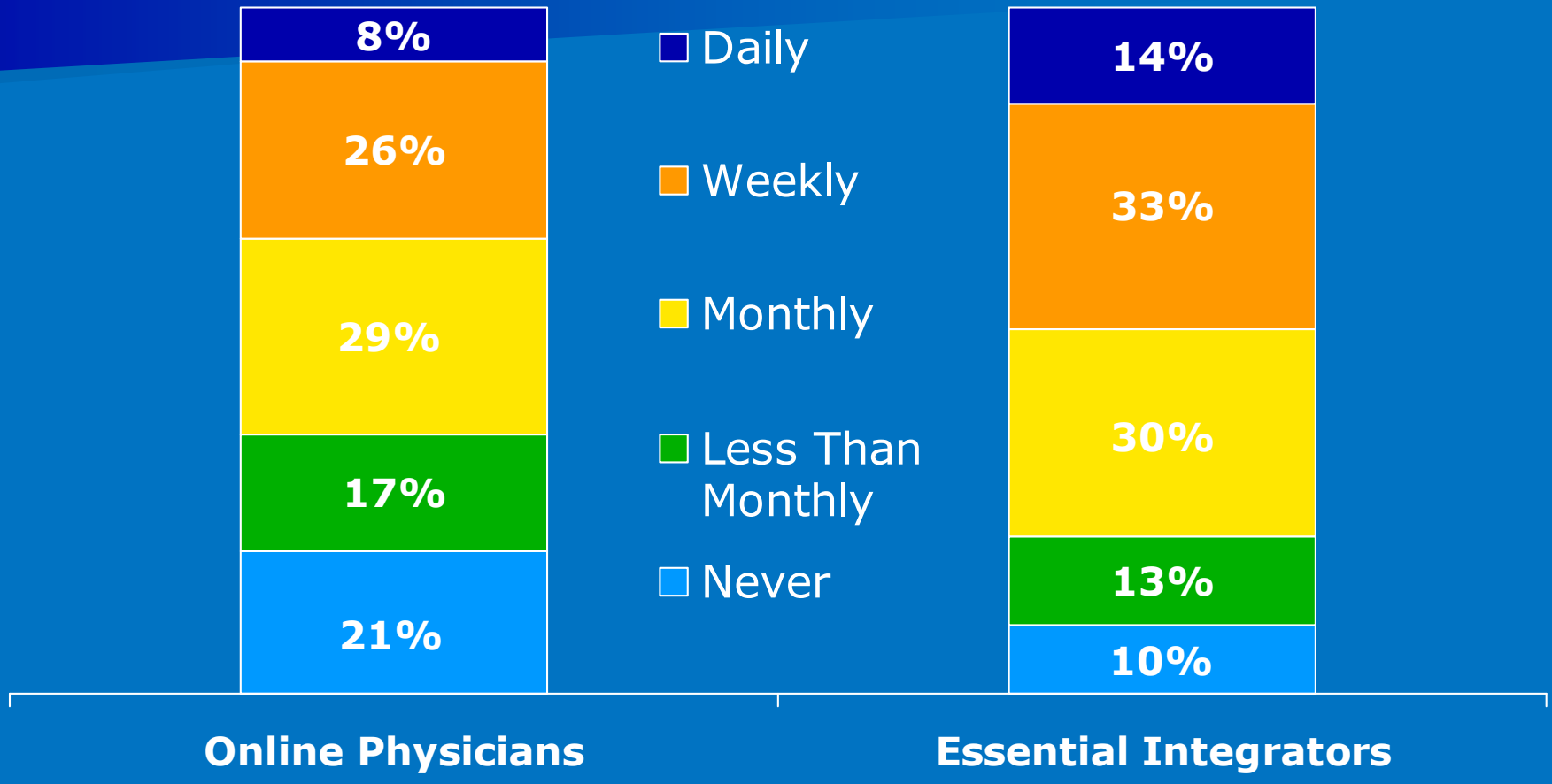


What Percentage of Your Online Time is Professional?



Source: Manhattan Research, 2004. "Taking the Pulse: Physicians and Emerging Information Technologies"

Use Professional Journals Online



Source: Manhattan Research, 2004. "Taking the Pulse: Physicians and Emerging Information Technologies"

Gamer generation

- Growing up with sophisticated games
- Interactive, multitasking
- Virtual collaborative communities
- Best quality graphics available
- Personalization

Source: The Gamer Generation in Today's Library, http://www.oclc.org/capcon/segments/technologies/

Users – by role

In what role are you visiting this site today?						
	PubMed			MedlinePlus (in English)		
	Total	Non US	US	Total	Non US	US
Physician	20%	22%	16%	16%	13%	11%
Researcher or Scientist	46%	48%	42%	3%	8%	3%
Patient/health consumer	3%	1%	4%	42%	43%	53%
College or Graduate Student	22%	21%	26%	9%	11%	6%
Secondary student	n/a	n/a	n/a	3%	2%	1%
Educator	2%	2%	3%	7%	16%	7%
Librarian	2%	2%	3%	4%	0%	4%
Other	4%	4%	6%	10%	3%	11%
News/media	n/a	n/a	n/a	2%	0%	2%
Health care administrator	n/a	n/a	n/a	4%	4%	1%

n/a -category not on PubMed survey

Source: 2005 American Customer Satisfaction Survey of PubMed and MedlinePlus

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User needs – ask them

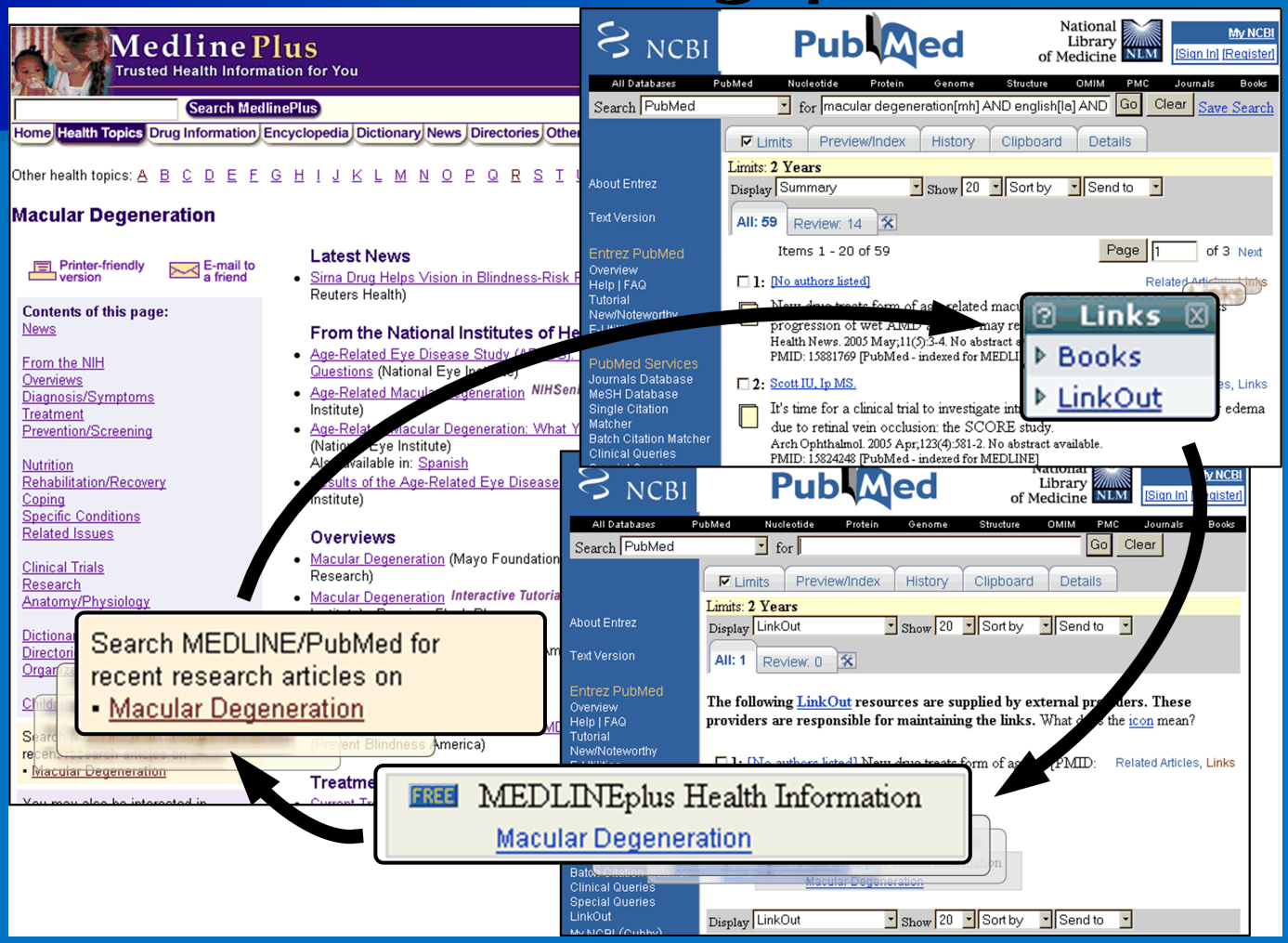
What is your primary reason for visiting the PubMed site today?	
Perform basic biological research	49%
Find articles by specific authors	37%
Perform clinical research	37%
Education	26%
Find articles in a specific journal	26%
Check journal reference	22%
Patient Care	13%
Other	6%
Own health care or that of family or friend	5%

Source: 2005 American Customer Satisfaction Survey of PubMed and MedlinePlus

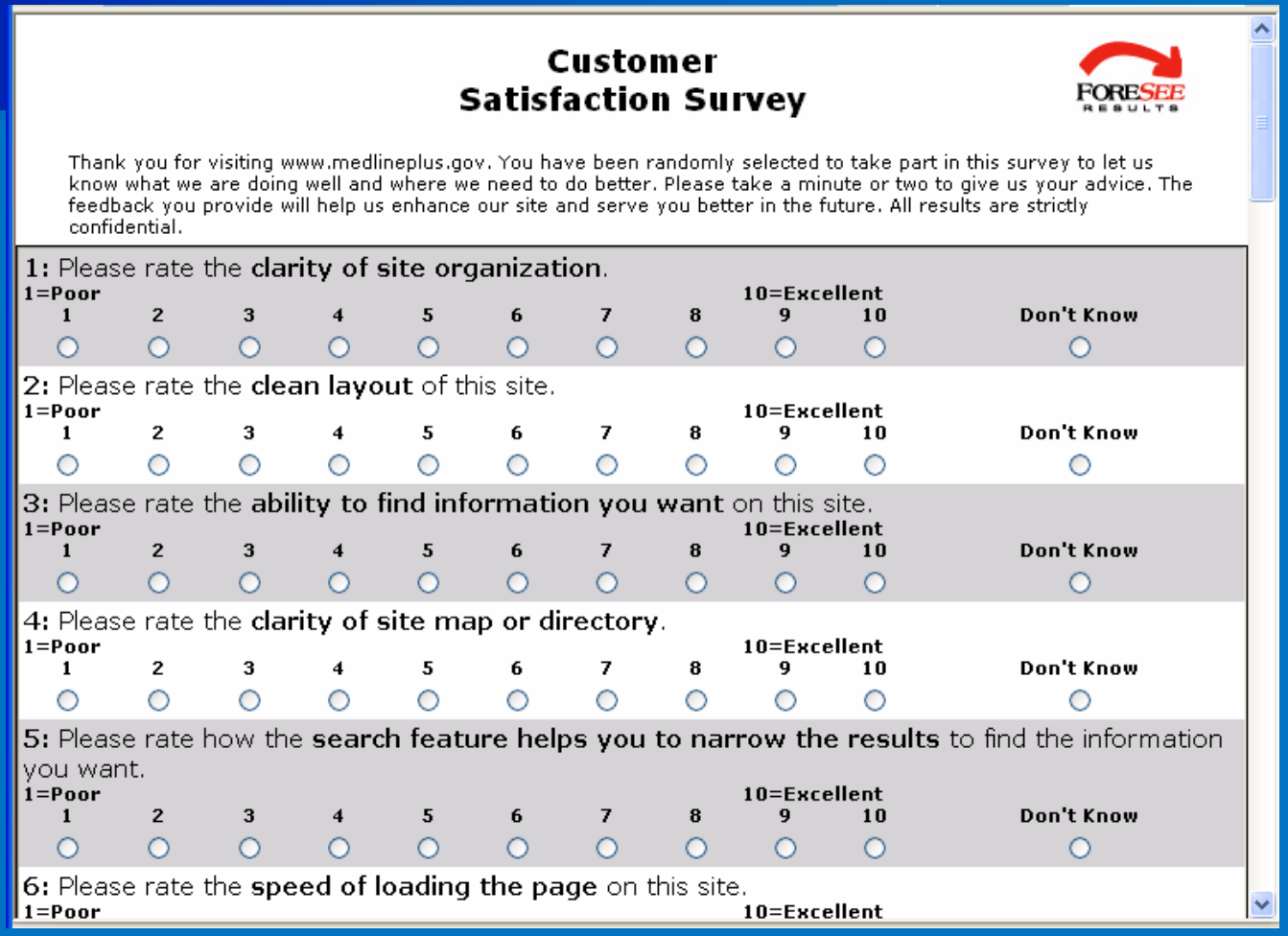
Why are you visiting the MedlinePlus site today?	
Find info on a specific disease, condition, diagnosis, or treatment	63%
Find info on medicines or prescription drugs	39%
Find general health and wellness info	33%
Keep up with breaking health news	21%
For a project or presentation	21%
Find info on alternative treatments, herbals, or vitamins	16%
Search for health care products or services	11%
Other	9%
Find info on clinical trials	8%
Obtain the opinion of a health care provider	7%
Search for health care provider	4%
Find health self-help groups	3%

What best describes the result of your visit?	PubMed	MedlinePlus
Conducted further research on disease, diagnosis or treatment	23%	27%
Discussed search results with my health care professional	4%	12%
Delivered search results to the requester	6%	29%
Improved understanding of a disease, diagnosis or treatment	26%	57%
Made decision about patient care	9%	16%
Other	4%	6%
Sought further information from library	14%	7%
Kept up to date about research in field of interest	55%	n/a
Obtained full text of selected articles of interest	50%	n/a
Learned about methods relevant to research	27%	n/a
Obtained help in reporting research results	17%	n/a
Determined viability of research area	13%	n/a
Completed administrative responsibilities	3%	n/a
Did not find what I wanted	4%	n/a
Altered exercise or eating habits	n/a	7%
Discussed a disease, condition, diagnosis, or treatment with family member of friend	n/a	23%
Made a doctor's appointment for self or another	n/a	7%
Nothing specific happened	n/a	6%
Switched from one medicine or prescription drug to another	n/a	4%
Used information for a project or presentation	n/a	21%

Connecting products



Meeting their needs?



Customer Satisfaction Survey

FORESEE RESULTS

Thank you for visiting www.medlineplus.gov. You have been randomly selected to take part in this survey to let us know what we are doing well and where we need to do better. Please take a minute or two to give us your advice. The feedback you provide will help us enhance our site and serve you better in the future. All results are strictly confidential.

1: Please rate the **clarity of site organization**.

1=Poor									10=Excellent	Don't Know
1	2	3	4	5	6	7	8	9	10	
○	○	○	○	○	○	○	○	○	○	○

2: Please rate the **clean layout** of this site.

1=Poor									10=Excellent	Don't Know
1	2	3	4	5	6	7	8	9	10	
○	○	○	○	○	○	○	○	○	○	○

3: Please rate the **ability to find information you want** on this site.

1=Poor									10=Excellent	Don't Know
1	2	3	4	5	6	7	8	9	10	
○	○	○	○	○	○	○	○	○	○	○

4: Please rate the **clarity of site map or directory**.

1=Poor									10=Excellent	Don't Know
1	2	3	4	5	6	7	8	9	10	
○	○	○	○	○	○	○	○	○	○	○

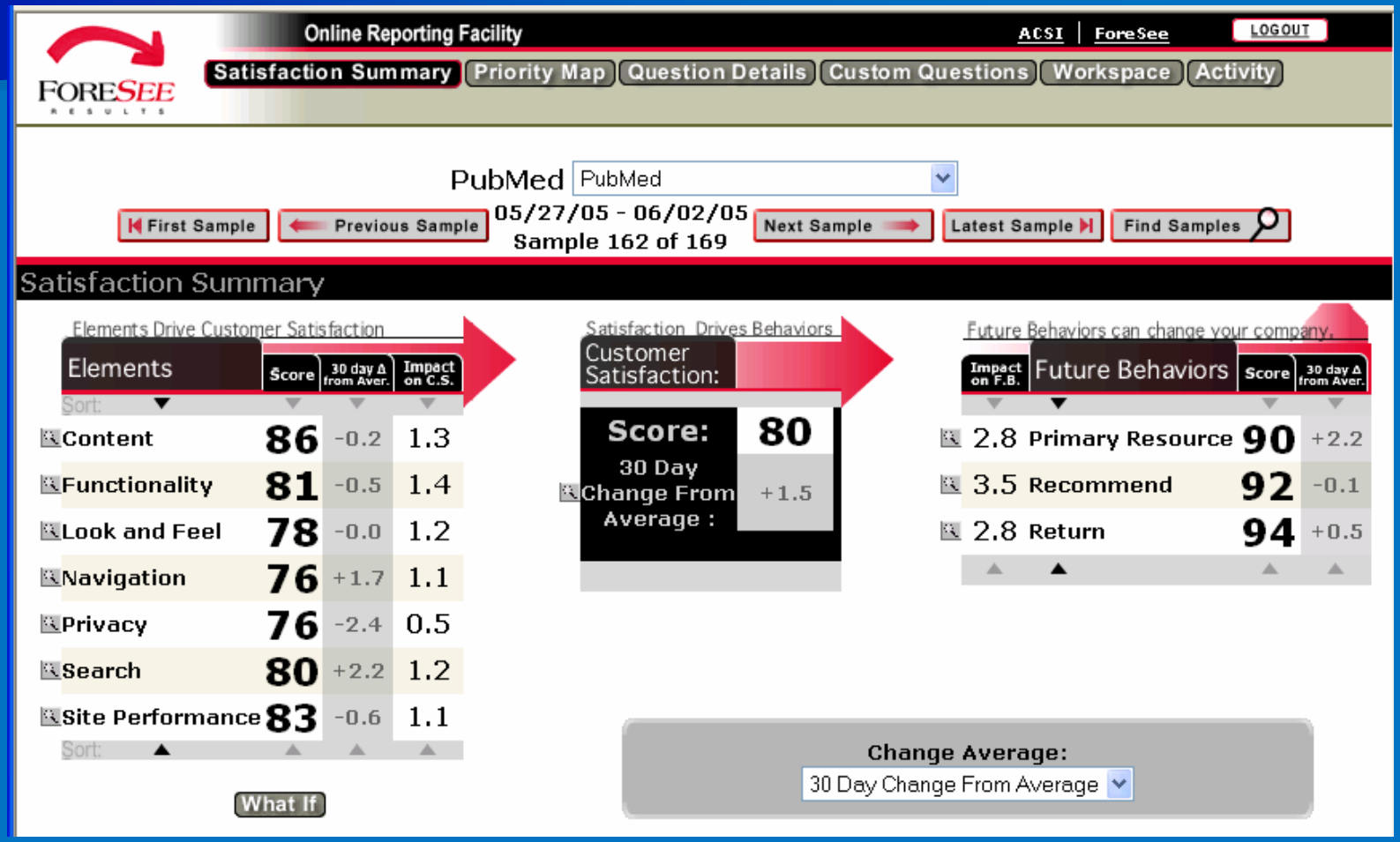
5: Please rate how the **search feature helps you to narrow the results** to find the information you want.

1=Poor									10=Excellent	Don't Know
1	2	3	4	5	6	7	8	9	10	
○	○	○	○	○	○	○	○	○	○	○

6: Please rate the **speed of loading the page** on this site.

1=Poor 10=Excellent

Meeting their needs?



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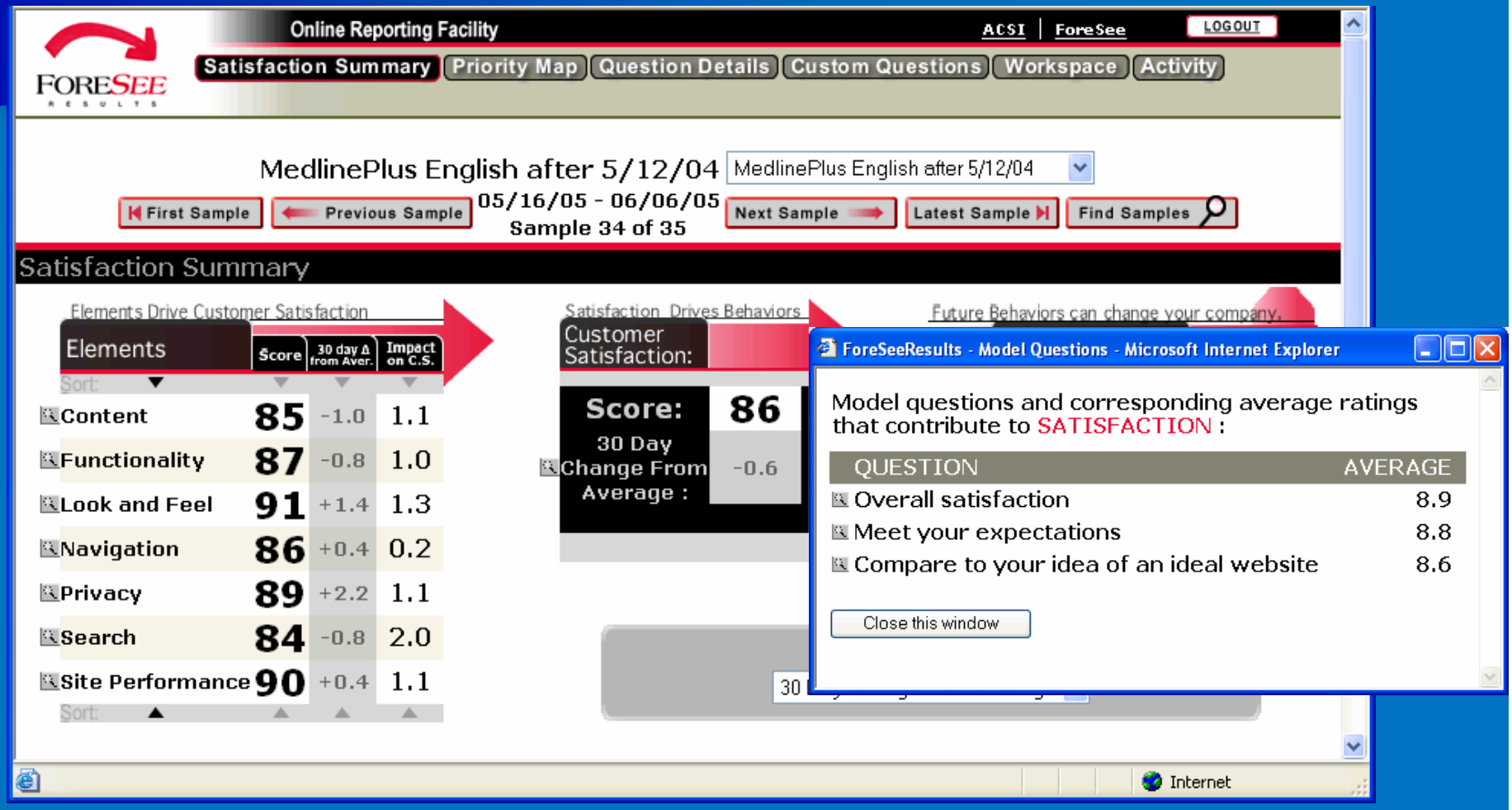
Source: 2005 American Customer Satisfaction Survey of PubMed and MedlinePlus

Satisfaction measures



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PERSPECTIVE

2015 — The Future of Medical Libraries

Donald A.B. Lindberg, M.D., and Betsy L. Humphreys, M.L.S.

- New England Journal of Medicine, March 17 2005.
- Libraries today
  - Within institutions
  - Providing scholarly information
  - Support health care, education, and research
- Libraries in 2015. . .

Libraries in 2015

- Easy access from home, offices, wards, clinics, libraries and everywhere in between
- Electronic health records with connections to related knowledge
- "Library as place" valued and heavily used
- Individual articles have "lives of their own"
- Multimedia "digital libraries" with rich interconnections
- Digital libraries still need librarians
- Librarians are "deployed in context"
  - Part of the health care team
  - Grant writing and administration
  - Institutional review boards
  - Bioinformatic database specialists
  - Evidence-based medicine courses
  - Health literacy programs

Source: Lindberg and Humphreys. "2015-The Future of Medical Libraries, New England Journal of Medicine, March 17, 2005.

Users – today and tomorrow

- Lindberg and Humphreys - health care professionals, patients, educators, students, researchers and administrators
- Search engine users become library users
  - 60% of MedlinePlus's visits come from search engines
- Patients
  - Physician Information Rx
  - Electronic prescriptions through EMR
- Users by format
  - RSS for PubMed
  - Handheld/Palm – PubMed on Tap
- New Audiences AND Format

  WISER (Wireless Information System for Emergency Responders) - fire fighters, police, emergency medical

Libraries: meeting the needs of today's users by anticipating tomorrow

- Function of place transformed
- More electronic information
  - Serve greater numbers of users
  - Negotiate licenses that meet user expectations
- Training & education – new ways
- As users change, services must change

Changing user expectations

"Shared medical records are almost universally endorsed across a broad range of ethnic and socioeconomic groups. A majority of patients are also interested in Internet-accessible records, but a substantial minority is not. The primary determinants of support of Internet-accessible records are not age, race, or education level; rather, they are **previous experience with the Internet and patients' expectations of the benefits and drawbacks of reading their medical records**. Physicians have more concerns about shared medical records and see less potential for benefit. The attitudes of patients and physicians may need to be reconciled for widespread adoption of shared medial records to be achieved."

Ross SE, Todd J, Moore LA, Beaty BL, Wittevrongel L, Lin C
Expectations of Patients and Physicians Regarding Patient-Accessible Medical Records
J Med Internet Res 2005;7(2):e13
<URL: http://www.jmir.org/2005/2/e13/>

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