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## Sarah N. Keller and Heather La Belle

# STDs.com: Sexuality Education Online

This study found that teenagers in the United States frequently used the Internet for sexual health information, but only a few health topics of importance were considered by students to be well covered by the Web sites. Focus group results showed the Web sites failed to answer teenagers' personal questions, and did not provide adequate information on sexual health counseling or the risk of getting reinfected with sexually transmitted diseases.

Increasing use of the Internet for health and an adolescent STD epidemic - provides educators with a unique opportunity to convey sexual information. The Internet is an ideal venue for communicating sensitive information because it offers some degree of privacy, sophisticated message tailoring, and can relay information on demand - a quality especially important for young people, who often lack transportation. This study was designed to find out:

- a) how US teenagers evaluate top-rated STD-prevention Web sites
- b) what teenagers think of the sexual health messages recommended by the Sexuality Information and Education Council of the United States (SIECUS)
- c) usability features of the Web sites

Focus groups and a written questionnaire were administered with 15-18 year olds.

### Results

Results showed teenagers are using the Internet for sexual - and other kinds of - health information. Twenty-nine percent of survey respondents (N = 94) said they had used the Web for sexual health information, and one-fourth of these indicated they had acted on the information they found. Half of

the focus group interviewees (N = 18) said Web sites are a good channel for delivering sexual health information to teenagers. The fact that only half agreed points to important concerns that remain regarding Internet sex education, such as the fear of unintentionally pulling up pornographic information. However, careful search strategies using specific key words have been shown to circumvent this problem (Keller, LaBelle, et al., 2002; Keller, LaBelle, et al., 2004).

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### Not good enough

Other findings indicate that educational Web sites - even some of the best - are not doing a good enough job delivering the kinds of sexual health information in the formats that students want. No site achieved a score higher than 8.6 (out of 10) for any topic. Relatively little information was identified on the Web sites on the possibility of getting reinfected with an STD or virus, and only modest amounts of information about condom effectiveness. Two topics that were well covered by the sites, according to teenagers' assessment, and considered important by

survey respondents were "Which STDs can be cured or treated" and "How to avoid STDs/HIV" (Table 1).

The low content scores indicate potentially huge gaps between educators' and teenagers' notions of what communicates information effectively to teenagers.

### Improved design

Health educators can improve their Web interface design. The highest score students gave any usability criterion was 8.2 out of 10, for currency. Ironically, information design features that were strongest on the Web sites - currency, accuracy and authority - were considered least important by teenagers answering the survey, while navigability, rated most important, was not strong on the Web sites (Table 2).

### Finding answers

The difficulty that students had in finding answers to their own sexual health questions seems even more serious (Table 3). Perhaps this was due to the fact that our five sites, selected for their in-depth focus on HIV/STD, were too narrowly focused on STD-specific information. If, in order to be good, STD Web sites have to be so narrow that they fail to address broader sexual questions, then educators need to find a better

way of linking Web sites together. Students who take the time to visit such sites need to find easy answers to their questions.

### Positive response

The positive response students gave for using the Internet as a sexual health tool should not be ignored. It is clearly pressing to find better ways to design top-notch safe sex Web sites for students, and better ways to disseminate or advertise these sites to students.

### Web sites

The Web sites used in this study were:

- 1 = [www.nnfr.org/adolsex/fact/adolsex\\_std.html](http://www.nnfr.org/adolsex/fact/adolsex_std.html)
- 2 = [www.unspeakable.com/truth.html](http://www.unspeakable.com/truth.html)
- 3 = [www.siecus.org/teen/](http://www.siecus.org/teen/)
- 4 = [www.chebucto.ns.ca/Health/TeenHealth](http://www.chebucto.ns.ca/Health/TeenHealth)
- 5 = [www.itsyoursexlife.com](http://www.itsyoursexlife.com)

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### Editor's note:

We would be interested in hearing of UK based studies that explore young people's use of the Internet for sexual health information and STDs in particular. There are UK Web sites that we are aware of relating to sexual health information. The following list is not exhaustive and we do not make any recommendations as to their suitability -

- [www.yppsh.net](http://www.yppsh.net)
- [www.ruthinking.co.uk](http://www.ruthinking.co.uk)
- [www.likeitis.org](http://www.likeitis.org)
- [www.playingsafely.co.uk](http://www.playingsafely.co.uk)
- [www.avert.org.uk](http://www.avert.org.uk)

Topics about Sexually Transmitted Diseases (STDs)	Mean Web site scores					Topic	
	1	2	3	4	5	Mean	SD
Which STDs can be cured or treated	7.6	7.4	6.4	5.4	8.6	7.1	3.32
Helping others protect themselves	6.6	7	7.2	7.6	6.8	7.0	2.06
Information about Hepatitis B	6	8.2	5.8	7.4	6.4	6.8	3.03
How to avoid STD/HIV	6.2	7.8	7.6	5.4	5.4	6.5	1.94
STD/HIV Testing	7.4	7.4	5.4	5.6	6.6	6.5	2.65
STD/HIV hotline information	6.8	5.6	8.2	5.8	4.4	6.2	2.99
HIV transmission through kissing	5.6	8	4.2	8	4.2	6.0	2.15
When to go to a clinic	5	6.4	6.6	5.8	6	6.0	2.83
Condom effectiveness	7.4	5.4	6.4	4.6	5.8	5.9	2.87
More than one STD	6.6	6	5.8	3.8	5.4	5.5	3.82
What to do if infected	4.2	6.4	6.2	5.8	4.6	5.4	3.06
Talking about STDs with a partner	5.6	4.6	3.8	5.4	7	5.3	4.03
HIV transmission by casual contact	4.4	5.2	3.8	6.8	3.6	4.8	1.36
Getting support from friends and family	3.6	4	6.6	5	4.6	4.8	3.32
How to get counseling	4.2	6.2	5	4.2	2.4	4.4	3.12
Support groups for HIV positive people	2.8	3.6	4.6	3.8	3.2	3.6	1.47
Reinfection	1.4	2.4	2.6	3.2	1.8	2.3	1.02
<b>Total scores for Web sites</b>	<b>91.4</b>	<b>101.6</b>	<b>95.8</b>	<b>93.6</b>	<b>90.6</b>		

Note. Scores were based on 6 students' scores of 5 Web sites in terms of how well they covered 17 STD topics, on a scale 1-10. Topics are rank ordered from strongest to weakest coverage by the Web sites. Due to invalid scores from one participant, only five responses were used. Scores in this table represent an average score given by all students for each Web site by topic. Web sites: 1 = [www.nnfr.org/adolsex/fact/adolsex\\_std.html](http://www.nnfr.org/adolsex/fact/adolsex_std.html) 2 = [www.unspeakable.com/truth.html](http://www.unspeakable.com/truth.html) 3 = [www.siecus.org/teen/](http://www.siecus.org/teen/) 4 = [www.chebucto.ns.ca/Health/TeenHealth/](http://www.chebucto.ns.ca/Health/TeenHealth/) 5 = [www.itsyoursexlife.com](http://www.itsyoursexlife.com)

Usability Criteria	Web sites (N=5)										Gross	
	1		2		3		4		5		M	SD
Accuracy	7	3.46	7.6	2.30	8.2	2.04	7.6	2.07	7.6	3.29	7.6	2.64
Authority	7.4	1.82	7.6	3.78	8.8	1.10	6.0	2.83	8.2	2.95	7.6	2.49
Objectivity	7	--	5	--	6	--	7	--	5.5	--	4.9	--
Currency	8.8	1.30	8.4	0.89	8.6	0.89	6.8	2.17	8.2	3.49	8.2	1.75
Readability	8.4	1.52	7.4	2.61	5.0	--	5.6	3.44	7.2	2.49	6.7	2.69
Navigability	8.2	1.48	8.8	1.64	8.0	2.35	6.8	2.77	7.6	2.79	7.9	2.21
Coverage	6.6	2.97	7.6	2.07	7.4	2.30	7.4	2.30	7.0	1.87	7.2	2.30
<b>Total score</b>	<b>52.5</b>		<b>42</b>		<b>50.5</b>		<b>46</b>		<b>49</b>		<b>7.2</b>	

Note. Scores were given on a scale from 1-10 for each of five Web sites on seven criteria. Scores from all six students were averaged for each criterion. Web sites: 1 = [www.nnfr.org/adolsex/fact/adolsex\\_std.html](http://www.nnfr.org/adolsex/fact/adolsex_std.html) 2 = [www.unspeakable.com/truth.html](http://www.unspeakable.com/truth.html) 3 = [www.siecus.org/teen/](http://www.siecus.org/teen/) 4 = [www.chebucto.ns.ca/Health/TeenHealth/](http://www.chebucto.ns.ca/Health/TeenHealth/) 5 = [www.itsyoursexlife.com](http://www.itsyoursexlife.com) Total score of 52.5 for Web site no. 1 indicates it received the highest rating for usability. The gross mean of 8.2 for currency indicates students thought this criterion to be most important.

Students questions (N=18)	Web sites (N=5)				
	1	2	3	4	5
How long does it take for the pill to kick in?					
Can a condom protect you from getting STDs when you have sex with a person carrying it?		✓	✓		✓
Can you get HIV through kissing?	✓	✓		✓	
Can you still get pregnant if the condom is ripped?					
Why is sex so complicated?					✓
What is the difference between making love and having sex?					✓
Can you get pregnant with your clothes on?					
<b>Total scores</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>3</b>

Note. Web sites: 1 = [www.nnfr.org/adolsex/fact/adolsex\\_std.html](http://www.nnfr.org/adolsex/fact/adolsex_std.html) 2 = [www.unspeakable.com/truth.html](http://www.unspeakable.com/truth.html) 3 = [www.siecus.org/teen/](http://www.siecus.org/teen/) 4 = [www.chebucto.ns.ca/Health/TeenHealth/](http://www.chebucto.ns.ca/Health/TeenHealth/) 5 = [www.itsyoursexlife.com](http://www.itsyoursexlife.com)