



Internet Access among Low-Income WIC Populations

Session 4253.0, Innovations in Health Promotion
Tuesday, November 06, 2007

2:30 PM-4:00 PM @ WCC, 208A

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Study Overview

- ❑ **Objective:** Identify Internet access characteristics among low-income WIC populations.
- ❑ **Design:** Cross-sectional design. Data were collected through surveys and an online survey. Data collection timeline varied by study.
- ❑ **Setting:** Four studies occurred at local WIC agencies. One study occurred online.
- ❑ **Participants:** 2,942 WIC participants from two states completed a survey at a local agency. 43,789 participants from seven states completed an online survey. Four studies included all participants who accessed WIC services during the time of the study. One study included all WIC clients who completed an online nutrition education module over the course of 1 year. Subjects were all WIC participants and varied in age.
- ❑ **Variables Measured:** Internet access location, computer ownership, enjoyment in Internet learning, age, and relationship to child.

Survey Items for Detroit, Michigan and Washington WIC Internet Access Study Among Non-Internet Experienced Clients (WA-NIEC)

My age is:	Under 18	18-24	25-29	30-34	35-39	40-44	45-49	50 or over
My child's age is:	Under 1	1 yr	2 yrs	3 yrs	4 yrs	5 yrs or older		
I am the child's:	Parent	Grandparent	Guardian	Other				
I own a computer:	Yes	No						
I use the Internet at:	Home	Work	Library	Parent's home	Friend's home	WIC clinic	Other	I don't use the Internet
I like learning from the Internet:	Yes	No	I don't use the Internet					

Survey Items for Washington WIC Internet Access Study among Internet Experienced Clients (WA-IEC) and Wichealth.org Studies

My age is:	Under 18	18-24	25-29	30-34	35-39	40-44	45-49	50 or over
My child's age is:	Under 1	1 yr	2 yrs	3 yrs	4 yrs	5 yrs or older		
I am the child's:	Parent	Grandparent	Guardian	Other				
I am using the computer at:	Home	Work	Library	Parent's home	Friend's home	WIC clinic	Other	
I own a computer	Yes	No						



Samples

- ❑ The samples used for this investigation varied based on each individual study. However, all subjects were similar in that they were active WIC participants during the time of the study.

- ❑ Sample size for each study was as follows:

MI (n=1,521)

Detroit (n=621)

WA-NEIC (n=327)

WA-IEC (n=473)

Wichealth.org (n=43,789)

- ❑ Study participants were more likely to be 18-34 years of age with a child of their own under 3 years of age.

Subject Characteristics

	<i>Percentage of Valid Responses by Study</i>				
	<i>MI</i> (n=1,521)	<i>Detroit</i> (n=621)	<i>WA-NIEC</i> (n=327)	<i>WA-IEC</i> (n=473)	<i>wichealth</i> (n=43,789)
<i>Adult's age</i>					
<18 years	4.9	6.9	3.5	2.4	2.2
18-24 years	39.7	31.8	37.7	32.3	29.5
25-29 years	25.4	26.7	28.5	32.3	30.0
30-34 years	16.6	18.4	14.9	19.7	19.7
35-39 years	7.3	9.1	10.1	7.5	11.1
40-44 years	3.7	4.1	4.1	4.3	4.4
45-49 years	1.1	1.5	1.0	0.8	1.6
50+ years	1.4	1.4	0.3	0.8	1.5
<i>Child's age</i>					
Under 1year	25.8	33.3	27.4	26.7	19.8
1 year	14.7	16.8	24.6	17.4	21.7
2 years	13.9	17.0	23.1	14.3	17.6
3 years	9.3	12.9	15.0	13.2	13.7
4 years	6.8	7.9	9.6	5.5	10.0
5 years or older	1.6	4.0	0.4	2.1	0.4
More than 1 child <6	27.9	8.1	11.9	20.8	16.8
<i>Relationship to child</i>					
Parent	94.2	94.5	95.6	97.1	95.0
Grandparent	2.5	2.7	3.4	1.0	1.7
Guardian	2.1	1.2	1.0	1.0	2.1
Other/Daycare provider	1.2	1.4	0	0.9	1.2

Internet Use Characteristics

	<i>% of Valid Responses by Study</i>				
	<i>MI</i> (n=1,521)	<i>Detroit</i> (n=621)	<i>WA-NIEC</i> (n=327)	<i>WA-IEC</i> (n=473)	<i>wichealth</i> (n=43,789)
<i>Own a computer</i>					
Yes	53.5	41.8	56.4	85.7	*
No	46.5	58.2	43.6	14.0	*
<i>Internet access location</i>					
Home	44.8	27.5	41.8	81.3	56.6
Work	5.4	5.2	6.0	3.2	10.7
Library	7.5	14.3	8.2	4.0	6.2
Parent's home	8.3	3.7	7.3	6.4	9.2
Friend's home	4.6	6.1	5.4	4.0	5.5
WIC clinic	0.1	0.2	0	0	7.2
Other	1.9	2.6	4.1	1.1	4.5
Do not use the Internet	27.4	33.4	27.2	*	*
Use more than one place	*	7.1	*	*	*
<i>Like learning from web pages</i>					
Yes	79.2	88.4	73.2	*	*
No	20.8	11.6	26.8	*	15.0

* Data were not collected

Findings: Internet Access

- ❑ Access to the Internet varied significantly among the demographic measures collected ($\chi^2 = 284.5, df = 16, p < 0.001$).
- ❑ Access more likely to occur from home, although access from a library, parent's home, friend's home, and worksite collectively accounted for between 17.6% and 31.6% of all access.
- ❑ Regardless of access point, it was found that over 2/3 of respondents from MI (73.6%), WA-NEIC (72.8%), and Detroit (67.6%) studies have some form of access to the Internet.
- ❑ "Easy access to the Internet" (home, work, parent's home, friend's home) varied by study, with the lowest access being Detroit (49.6%) and the highest being WA-EIC (94.9%). wichealth (82%), MI (63.1%), and WA-NEIC (60.5) respondents also reported a relatively high degree of easy access.

Findings: Computer Use Location and Ownership

- ❑ Computer use location varied significantly by user age. This was true for the four smaller study samples ($\chi^2=129.1, df=35, p<0.001$) as well as the larger wichealth study ($\chi^2=1,618, df=35, p>0.001$). Younger clients were more likely to use the WIC clinic or their parent's computer to access the Internet compared to older clients who were more likely to use the Internet at home or work.
- ❑ Computer ownership varied significantly ($\chi^2=231.9, df=3, p<0.001$) between studies, with Detroit (41%) reporting the lowest and WA-IEC (85%) the highest. Computer ownership was associated with client age ($\chi^2=88.1, df=8, p>0.001$) among the four studies where ownership was measured, with those under age 25 less likely to own a computer than older groups.

Findings: Internet Learning Preference

- ❑ Over 80% of respondents who use the web indicated they like learning from the Internet, with a significant difference ($\chi^2=28.3, df=2, p>0.001$) in percentage of clients who liked learning from web pages being observed among the three studies that measured Internet interest. Client enjoyment in learning from the Internet was also significantly associated with whether they owned a computer ($\chi^2=147.9, df=1, p>0.001$).
- ❑ In general, those who own a computer were much more likely to indicate they like to learn from web pages, although individuals from the Detroit study reported owning a computer less frequently than clients in Michigan but also reported they like to learn from web pages more frequently than respondents statewide.
- ❑ Client age was marginally associated with whether clients like learning from the Internet ($\chi^2=14.9, df=7, p=0.04$), with clients aged 40 and older being less likely to report they liked learning from web pages. In contrast, no association existed between the client's child's age and whether the client liked learning from the Internet ($\chi^2=5.3, df=6, p=0.51$).



Discussion

- ❑ Results from these studies clearly identify important Internet access trends associated with WIC clients.
- ❑ Provides support for the fact that a relatively high degree of Internet access exists among low-income populations. As would be predicted, studies including those most likely to be regular users of the Internet (i.e., wichealth and WA-EIC) reported a high degree of both general Internet access and easy access channels (e.g., home, work). Results also showed that the WIC population in general has high access to the Internet.
- ❑ The high degree of respondents who indicated they like learning from the Internet again confirms web-based education as a viable means for targeting WIC populations.



Implications for Future Research and Practice

- ❑ This information is relevant in that it can provide direction and support for using the Internet as a viable avenue for delivering education among low income populations.
- ❑ It also confirms that the Internet has become more widely available to low income populations allowing important health communication objectives for the nation as identified in Healthy People 2010 to be addressed.
- ❑ Practitioners should use these findings to assist in determining how best to utilize the Internet as a method for delivering information and nutrition education to lower income populations, especially clients associated with the WIC program.



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