Mobile Health 2010

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Overview

The online health-information environment is going mobile, particularly among younger adults. The Pew Internet Project's latest survey of American adults, conducted in association with the California HealthCare Foundation, finds that 85% use a cell phone. Of those:

- 17% of cell owners have used their phone to look up health or medical information and 29% of cell owners ages 18-29 have done such searches.
- 9% of cell owners have software applications or "apps" on their phones that help them track or manage their health. Some 15% of those ages 18-29 have such apps.

This means that health-information searches and communications have joined the growing array of non-voice data applications that are being bundled into cell phones.[1] Fully 76% of cell phone owners (age 18+) use their phones to take pictures, for example, up from 66% in April 2009. Seven in ten cell phone owners send or receive text messages; four in ten access the internet on their phones. In addition, 35% of U.S. adults have software applications or "apps" on their phones (but only one in four adults actually use them).[2]

Even with the proliferation of mobile and online opportunities, however, most adults' search for health information remains anchored in the offline world. Most people turn to a health professional, friend, or family member when they have a health question; the internet plays a growing but still supplemental role – and mobile connectivity has not changed that.[3]

Mobile health apps

There are now more than 250,000 apps available for the iPhone[4], more than 30,000[5] such apps for smartphones running Android, and several thousand for those who have Blackberry devices.

There are apps for counting calories and nutrition information; apps for logging fitness workouts; apps to monitor vital signs; apps providing health tips; apps to calculate disease risks; apps to calculate body mass index; apps for keeping personal health records and for providing users' health information to physicians and emergency workers; apps to learn about medicines; apps for smoking cessation; and apps for yoga stretching exercises people can perform at their desks at work.

Cell phone users between 18-29 years old are more likely than older cell owners to use mobile health apps: 15% do so, compared with 8% of cell users ages 30-49, for example. African American cell phone owners are more likely than other groups to use such apps: 15% do so, compared with 7% of white and 11% of Latino cell phone users. Urban cell phone owners are more likely than those who live in suburban or rural areas to have a mobile health app on their phone. There are no significant differences between men and women, nor among income groups.

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[1] Mobile Access 2010. See: http:// pewinternet.org/Reports/2010/Mobile-Access-2010.aspx
[2] The Rise of Apps Culture, 2010. See: http:// pewinternet.org/Reports/2010/The-Rise-of-Apps-Culture.aspx
[3] The Social Life of Health Information, 2009. See: http:// pewinternet.org/Reports/2009/8-The-Social-Life-of-Health-Information.aspx
[4] See http://www.apple.com/iphone/apps-for-iphone/#heroOverview
[5] See http://www.mobilecrunch.com/2010/03/16/google-android-market-now-serving-30000-apps/

Mobile health apps

Percentage of cell phone users in each group who have a software application or "app" on their phone to help them track or manage their health

Total cell phone users	9%
Gender	
Male	10
Female	8
Race	
White	7
Black	15*
Hispanic	11
Age (at time of survey)	
18-29	15*
30-49	8
50-64	6
65+	5
Education	
Some high school	9
High school graduate	6
Some college	13*
College graduate or more	9
Household Income	
< $30,000	7
$30,000 - $49,999	8
$50,000 - $74,999	12
$75,000+	11
Language	
English	9*
Spanish	1
Community Type	
Rural	4
Suburban	9
Urban	12*

***** indicates a significant difference

Source: Pew Research Center's Internet & American Life Project, August 9-September 13, 2010 Tracking Survey. N=3,001 adults and N for cell phone users=2,485. The margin of error is +/- 2.5 percentage points for all adults and 3 points for cell phone users.

Mobile health information

The demographic mix shifts a bit when it comes to looking for health information on the go.

Younger cell phone users are certainly the most likely group to do this activity, but the drop-off point is closer to age 50, rather than age 30. Latino cell phone users are significantly more likely than other groups to use their cell phone to look for health information: 25% do so, compared with 15% of non-Hispanic whites, for example. Cell phone owners living in urban areas are more likely than their suburban and rural counterparts to use their phones to gather health information.

Used cell phone to look up health information

Percentage of cell phone users in each group who have used their phone to look up health or medical information

Total cell phone users	17%
Gender	
Male	17
Female	16
Race	
White	15
Black	19
Hispanic	25*
Age (at time of survey)	
18-29	29*
30-49	18*
50-64	7
65+	8
Education	
Some high school	16
High school graduate	12
Some college	21*
College graduate or more	20*
Household Income	
< $30,000	15
$30,000 - $49,999	17
$50,000 - $74,999	17
$75,000+	22*
Language	
English	17
Spanish	14
Community Type	
Rural	11
Suburban	16
Urban	21*

***** indicates a significant difference

Source: Pew Research Center's Internet & American Life Project, August 9-September 13, 2010 Tracking Survey. N=3,001 adults and N for cell phone users=2,485. The margin of error is +/- 2.5 percentage points for all adults and 3 points for cell phone users.

Wireless access

In addition to the findings related to cell phones, the September 2010 survey finds that 57% of American adults have a wireless connection and use a laptop or a cell phone to access the internet.

The "mobile difference," which Pew Internet first identified in 2009,[6] is the observation that once someone has a wireless device, that person is more likely to use the internet to gather information, share information and create new content. These patterns are beginning to emerge in Americans' pursuit of health information on mobile devices as well as traditional wired computers.

This survey finds that 78% of wireless internet users have looked online for health information, compared with 70% of internet users with desktop access and 59% of all American adults.

Previous research by the Pew Internet Project has shown that wireless connections are associated with deeper engagement in health-related social media. Mobile internet users are more likely than those with tethered access to post comments and reviews online about health and health care, for example.[7] Information is now portable, personalized, and participatory, thanks in part to the growing number of American adults who are leading the wireless pack.

[6] The Mobile Difference, 2009. See: http://www.pewinternet.org/Reports/2009/5-The-Mobile-Difference--Typology.aspx

[7] The Social Life of Health Information, 2009.

Methodology

This report is based on the findings of a daily tracking survey on Americans' use of the Internet. The results in this report are based on data from telephone interviews conducted by Princeton Survey Research Associates International between August 9 and September 13, 2010, among a sample of 3,001 adults, age 18 and older. Interviews were conducted in English and Spanish. For results based on the total sample, one can say with 95% confidence that the error attributable to sampling is plus or minus 2.5 percentage points. For results based Internet users (n=2,065), the margin of sampling error is plus or minus 2.9 percentage points. In addition to sampling error, question wording and practical difficulties in conducting telephone surveys may introduce some error or bias into the findings of opinion polls.

A combination of landline and cellular random digit dial (RDD) samples was used to represent all adults in the continental United States who have access to either a landline or cellular telephone. Both samples were provided by Survey Sampling International, LLC (SSI) according to PSRAI specifications. The landline sample for this survey was designed to generalize to the U.S. adult population and to oversample African-Americans and Hispanics. To achieve these objectives in a cost effective manner, the design uses standard list-assisted random digit dialing (RDD) methodology, but telephone numbers are drawn disproportionately from telephone exchanges with higher than average density of African-American and/or Hispanic households. The cellular sample was not list-assisted, but was drawn through a systematic sampling from dedicated wireless 100-blocks and shared service 100-blocks with no directory-listed landline numbers.

New sample was released daily and was kept in the field for at least five days. The sample was released in replicates, which are representative subsamples of the larger population. This ensures that complete call procedures were followed for the entire sample. At least 7 attempts were made to complete an interview at a sampled telephone number. The calls were staggered over times of day and days of the week to maximize the chances of making contact with a potential respondent. Each number received at least one daytime call in an attempt to find someone available. For the landline sample, half of the time interviewers first asked to speak with the youngest adult male currently at home. If no male was at home at the time of the call, interviewers asked to speak with the youngest adult female. For the other half of the contacts interviewers first asked to speak with the youngest adult female currently at home. If no female was available, interviewers asked to speak with the youngest adult male at home. For the cellular sample, interviews were conducted with the person who answered the phone. Interviewers verified that the person was an adult and in a safe place before administering the survey. Cellular sample respondents were offered a post-paid cash incentive for their participation. All interviews completed on any given day were considered to be the final sample for that day.

Disproportionate sampling and non-response in telephone interviews can produce biases in survey-derived estimates. The dataset was weighted in two stages. The first stage of weighting corrected for the disproportionate landline sample design and also accounted for the overlapping landline and cellular sample frames as well as different probabilities of selection associated with the number of adults in the household. The second stage of weighting matched overall sample demographics to population parameters. The demographic weighting parameters are derived from a special analysis of the most recently available Census Bureau's March 2009 Annual Social and Economic Supplement. This analysis produces population parameters for the demographic characteristics of adults age 18 or older. These parameters are then compared with the sample characteristics to construct sample weights. The weights are derived using an iterative technique that simultaneously balances the distribution of all weighting parameters.

Following is the full disposition of all sampled telephone numbers:

Table 1:Sample Disposition

Landline	Cell	
53,160	17,075	Total Numbers Dialed
2,613	441	Non-residential
2,430	32	Computer/Fax
21	---	Cell phone
27,936	6,428	Other not working
4,308	311	Additional projected not working
15,852	9,863	Working numbers
29.8%	57.8%	Working Rate
1,436	104	No Answer / Busy
2,734	2,370	Voice Mail
84	17	Other Non-Contact
11,598	7,372	Contacted numbers
73.2%	74.7%	Contact Rate
1,020	1,027	Callback
8,303	4,597	Refusal
2,275	1,748	Cooperating numbers
19.6%	23.7%	Cooperation Rate
158	60	Language Barrier
---	646	Child's cell phone
2,117	1,042	Eligible numbers
93.1%	59.6%	Eligibility Rate
116	42	Break-off
2,001	1,000	Completes
94.5%	96.0%	Completion Rate
13.6%	17.0%	Response Rate

The disposition reports all of the sampled telephone numbers ever dialed from the original telephone number samples. The response rate estimates the fraction of all eligible respondents in the sample that were ultimately interviewed. At PSRAI it is calculated by taking the product of three component rates:

- Contact rate – the proportion of working numbers where a request for interview was made
- Cooperation rate – the proportion of contacted numbers where a consent for interview was at least initially obtained, versus those refused
- Completion rate – the proportion of initially cooperating and eligible interviews that were completed

Thus the response rate for the landline sample was 13.6 percent. The response rate for the cellular sample was 17.0 percent.

September Health Tracking Survey 2010

Final Topline 9/17/10

Data for August 9 – September 13, 2010

Princeton Survey Research Associates International
for the Pew Research Center's Internet & American Life Project

Sample: n= 3,001 national adults, age 18 and older, including 1,000 cell phone interviews
Interviewing dates: 08.09.10 – 09.13.10

Margin of error is plus or minus 3 percentage points for results based on Total [n=3,001]
Margin of error is plus or minus 3 percentage points for results based on internet users [n=2,065]
Margin of error is plus or minus 3 percentage points for results based on cell phone users [n=2,485]

Q1 Overall, how would you rate the quality of life for you and your family today? Would you say it is… excellent, very good, good, fair or poor?

	CURRENT		MAY 2010[i]	SEPT 2009[ii]	APRIL 2009[iii]	DEC 2008[iv]
%	17	Excellent	18	16	17	15
	26	Very good	27	26	26	26
	34	Good	34	35	34	34
	16	Fair	16	17	16	19
	6	Poor	5	5	5	5
	*	Don't know	*	*	*	*
	*	Refused	*	*	1	1

There are no Questions Q2 thru Q5.

Q6a Do you use the internet, at least occasionally?

Q6b Do you send or receive email, at least occasionally?[1]

	USES INTERNET	DOES NOT USE INTERNET
Current	74	26
May 2010	79	21
January 2010[v]	75	25
December 2009[vi]	74	26
September 2009	77	23
April 2009	79	21
December 2008	74	26
November 2008[vii]	74	26
August 2008[viii]	75	25
July 2008[ix]	77	23
May 2008[x]	73	27
April 2008[xi]	73	27
January 2008[xii]	70	30
December 2007[xiii]	75	25
September 2007[xiv]	73	27
February 2007[xv]	71	29
December 2006[xvi]	70	30
November 2006[xvii]	68	32
August 2006[xviii]	70	30
April 2006[xix]	73	27
February 2006[xx]	73	27
December 2005[xxi]	66	34
September 2005[xxii]	72	28
June 2005[xxiii]	68	32
February 2005[xxiv]	67	33
January 2005[xxv]	66	34
Nov 23-30, 2004[xxvi]	59	41
November 2004[xxvii]	61	39
June 2004[xxviii]	63	37
February 2004[xxix]	63	37
November 2003[xxx]	64	36
August 2003[xxxi]	63	37
June 2003[xxxii]	62	38
May 2003[xxxiii]	63	37
March 3-11, 2003[xxxiv]	62	38
February 2003[xxxv]	64	36

Q6a/b continued...

[1] Prior to January 2005, question wording was "Do you ever go online to access the Internet or World Wide Web or to send and receive email?"

Q6a/b continued…

	USES INTERNET	DOES NOT USE INTERNET
December 2002[xxxvi]	57	43
November 2002[xxxvii]	61	39
October 2002[xxxviii]	59	41
September 2002[xxxix]	61	39
July 2002[xl]	59	41
March/May 2002[xli]	58	42
January 2002[xlii]	61	39
December 2001[xliii]	58	42
November 2001[xliv]	58	42
October 2001[xlv]	56	44
September 2001[xlvi]	55	45
August 2001[xlvii]	59	41
February 2001[xlviii]	53	47
December 2000[xlix]	59	41
November 2000[l]	53	47
October 2000[li]	52	48
September 2000[lii]	50	50
August 2000[liii]	49	51
June 2000[liv]	47	53
May 2000[lv]	48	52

Q10 As I read the following list of items, please tell me if you happen to have each one, or not. Do you have… [INSERT ITEMS IN ORDER]?

	YES	NO	DON'T KNOW	REFUSED
a. A cell phone or a Blackberry or iPhone or other device that is also a cell phone[2]				
Current	85	15	*	*
May 2010	82	18	*	0
January 2010[3]	80	20	0	*
December 2009	83	17	0	*
September 2009	84	15	*	*
April 2009	85	15	*	*
April 2008	78	22	*	--
Dec 2007	75	25	*	--
Sept 2007	78	22	*	--
April 2006	73	27	*	--
January 2005[4]	66	34	*	--
November 23-30, 2004	65	35	*	--

[2] Prior to April 2009, item wording was "A cell phone." From April 2009 thru December 2009, item wording was "A cell phone or a Blackberry or iPhone or other device that is also a cell phone." Beginning December 2007, this item was not asked of the cell phone sample, but results shown here reflect Total combined Landline and cell phone sample.
[3] In January 2010, item wording was "A cell phone or a Blackberry or iPhone or other handheld device that is also a cell phone."
[4] Through January 2005, question was not asked as part of a series. Question wording as follows: "Do you happen to have a cell phone, or not?"

Q14 On your cell phone, do you happen to have any software applications or "apps" that help you track or manage your health, or not?

Based on cell phone users [N=2,485]

	CURRENT	
%	9	Yes
	90	No
	1	Don't know
	*	Refused

Q15 Do you ever use your cell phone to look up health or medical information?

Based on cell phone users [N=2,485]

	CURRENT	
%	17	Yes, do this
	83	No, do not do this
	*	Don't know
	0	Refused

Endnotes

[i] May 2010 trends based on the Spring Change Assessment 2010 survey, conducted April 29 – May 30, 2010 [N=2,252, including 744 cell phone interviews].

[ii] September 2009 trends based on the September Tracking 2009 survey, conducted August 18 – September 14, 2009 [N=2,253, including 560 cell phone interviews].

[iii] April 2009 trends based on the Spring 2009 Tracking survey, conducted March 26-April 19, 2009 [N=2,253, including 561 cell phone interviews].

[iv] December 2008 trends based on the Fall Tracking survey, conducted November 19-December 20, 2008 [N=2,253, including 502 cell phone interviews]. Trends do not include California oversample.

[v] January 2010 trends based on the Online News survey, conducted December 28, 2009 – January 19, 2010 [N=2,259, including 562 cell phone interviews].

[vi] December 2009 trends based on the Fall Tracking "E-Government" survey, conducted November 30 – December 27, 2009 [N=2,258, including 565 cell phone interviews].

[vii] November 2008 trends based on the Post-Election 2008 Tracking survey, conducted November 20-December 4, 2008 [N=2,254].

[viii] August 2008 trends based on the August Tracking 2008 survey, conducted August 12-31, 2008 [N=2,251].

[ix] July 2008 trends based on the Personal Networks and Community survey, conducted July 9-August 10, 2008 [N=2,512, including 505 cell phone interviews]

[x] May 2008 trends based on the Spring Tracking 2008 survey, conducted April 8-May 11, 2008 [N=2,251].

[xi] April 2008 trends based on the Networked Workers survey, conducted March 27-April 14, 2008. Most questions were asked only of full- or part-time workers [N=1,000], but trend results shown here reflect the total sample [N=2,134].

[xii] January 2008 trends based on the Networked Families survey, conducted December 13, 2007-January 13, 2008 [N=2,252].

[xiii] December 2007 trends based on the Annual Gadgets survey, conducted October 24-December 2, 2007 [N=2,054, including 500 cell phone interviews].

[xiv] September 2007 trends based on the Consumer Choice survey, conducted August 3-September 5, 2007 [N=2,400, oversample of 129 cell phone interviews].

[xv] February 2007 trends based on daily tracking survey conducted February 15-March 7, 2007 [N=2,200].

[xvi] December 2006 trends based on daily tracking survey, conducted November 30 - December 30, 2006 [N=2,373].

[xvii] November 2006 trends based on Post-Election tracking survey, conducted Nov. 8-Dec. 4, 2006 [N=2,562]. This includes an RDD sample [N=2,362] and a cell phone only sample [N=200]. Results reflect combined samples, where applicable.

[xviii] August 2006 trends based on daily tracking survey, conducted August 1-31, 2006 [N=2,928].

[xix] April 2006 trends based on the Annual Gadgets survey, conducted Feb. 15-Apr. 6, 2006 [N=4,001].

[xx] February 2006 trends based on the Exploratorium Survey, conducted Jan. 9-Feb. 6, 2006 [N=2,000].

[xxi] December 2005 trends based on daily tracking survey conducted Nov. 29-Dec. 31, 2005 [N=3,011].

[xxii] September 2005 trends based on daily tracking survey conducted Sept. 14-Oct.13, 2005 [N=2,251].

[xxiii] June 2005 trends based on the Spyware Survey, conducted May 4-June 7, 2005 [N=2,001].

[xxiv] February 2005 trends based on daily tracking survey conducted Feb. 21-March 21, 2005 [N=2,201].

[xxv] January 2005 trends based on daily tracking survey conducted Jan. 13-Feb.9, 2005 [N=2,201].

[xxvi] November 23-30, 2004 trends based on the November 2004 Activity Tracking Survey, conducted November 23-30, 2004 [N=914].

[xxvii] November 2004 trends based on the November Post-Election Tracking Survey, conducted Nov 4-Nov 22, 2004 [N=2,200].

[xxviii] June 2004 trends based on daily tracking survey conducted May 14-June 17, 2004 [N=2,200].

[xxix] February 2004 trends based on daily tracking survey conducted February 3-March 1, 2004 [N=2,204].

[xxx] November 2003 trends based on daily tracking survey conducted November 18-December 14, 2003 [N=2,013].

[xxxi] August 2003 trends based on 'E-Government' survey conducted June 25-August 3, 2003 [N=2,925].

[xxxii] June 2003 trends based on 'Internet Spam' survey conducted June 10-24, 2003 [N=2,200].

[xxxiii] May 2003 trends based on daily tracking survey conducted April 29-May 20, 2003 [N=1,632].

[xxxiv] March 3-11, 2003 trends based on daily tracking survey conducted March 3-11, 2003 [N=743].

[xxxv] February 2003 trends based on daily tracking survey conducted February 12-March 2, 2003 [N=1,611].

[xxxvi] December 2002 trends based on daily tracking survey conducted Nov. 25–Dec. 22, 2002 [N=2,038].

[xxxvii] November 2002 trends based on daily tracking survey conducted October 30-November 24, 2002 [N=2,745].

[xxxviii] October 2002 trends based on daily tracking survey conducted October 7-27, 2002 [N=1,677].

[xxxix] September 2002 trends based on daily tracking survey conducted September 9-October 6, 2002 [N=2,092].

[xl] July 2002 trends based on 'Sept. 11th-The Impact Online' survey conducted June 26-July 26, 2002 [N=2,501].

[xli] March/May 2002 trends based on daily tracking surveys conducted March 1-31, 2002 and May 2-19, 2002.

[xlii] January 2002 trends based on a daily tracking survey conducted January 3-31, 2002 [N=2,391].

[xliii] December 2001 trends represent a total tracking period of December 1-23, 2001 [N=3,214]. This tracking period based on daily tracking surveys conducted December 17-23, 2001 and November 19-December 16, 2001.

[xliv] November 2001 trends represent a total tracking period of November 1-30, 2001 [N=2,119]. This tracking period based on daily tracking surveys conducted October 19 – November 18, 2001 and November 19 – December 16, 2001.

[xlv] October 2001 trends represent a total tracking period of October 1-31, 2001 [N=1,924]. This tracking period based on daily tracking surveys conducted September 20 – October 1, 2001, October 2-7, 2001, October 8-18, 2001, and October 19 – November 18, 2001.

[xlvi] September 2001 trends represent a total tracking period of September 1-30, 2001 [N=742]. This tracking period based on daily tracking surveys conducted August 13-September 10, 2001, September 12-19, 2001 and September 20 – October 1, 2001.

[xlvii] August 2001 trends represent a total tracking period of August 12-31, 2001 [N=1,505]. This tracking period based on a daily tracking survey conducted August 13-September 10, 2001.

[xlviii] February 2001 trends based on a daily tracking survey conducted February 1, 2001-March 1, 2001 [N=2,096].

[xlix] December 2000 trends based on a daily tracking survey conducted December 2-22, 2000 [N=2,383].

[l] November 2000 trends based on a daily tracking survey conducted November 2, 2000 – December 1 [N=6,322].

[li] October 2000 trends based on a daily tracking survey conducted October 2 – November 1, 2000 [N=3,336].

[lii] September 2000 trends based on a daily tracking survey conducted September 15 – October 1, 2000 [N=1,302].

[liii] August 2000 trends based on a daily tracking survey conducted July 24 – August 20, 2000 [N=2,109].

[liv] June 2000 trends based on a daily tracking survey conducted May 2 – June 30, 2000 [N=4,606].

[lv] May 2000 trends based on a daily tracking survey conducted April 1 – May 1, 2000 [N=2,503].