

USE OF THE INTERNET

1.1 Use Of The Internet

Pew Research Center (www.pewresearch.org) reported adult use of the Internet as follows (percentage of U.S. adults):

• 2000:	52%	• 2011:	79%
• 2001:	55%	• 2012:	83%
• 2002:	59%	• 2013:	84%
• 2003:	61%	• 2014:	84%
• 2004:	63%	• 2015:	86%
• 2005:	68%	• 2016:	88%
• 2006:	71%	• 2018:	89%
• 2007:	74%	• 2019:	90%
• 2008:	74%	• 2020:	91%
• 2009:	76%	• 2021:	93%
• 2010:	76%		

In 2021, 93% of U.S. adults used the Internet. Demographics are as follows:

Gender

• Female:	93%
• Male:	94%

Education

• High school or less:	86%
• Some college:	97%
• College degree:	98%

Ethnicity/Race

• Black:	91%
• Caucasian:	93%
• Hispanic:	95%

Income

• Less than \$30,000:	86%
• \$30,000 to \$49,999:	91%
• \$50,000 to \$74,999:	98%
• \$75,000 or more:	99%

Community

- Urban: 95%
- Suburban: 94%
- Rural: 90%

1.2 Home Broadband

Pew Research Center reported adult use of home broadband as follows (percentage of U.S. adults):

- | | | | |
|---------|-----|---------|-----|
| • 2000: | 1% | • 2011: | 60% |
| • 2001: | 6% | • 2012: | 66% |
| • 2002: | 10% | • 2013: | 70% |
| • 2003: | 15% | • 2014: | 70% |
| • 2004: | 24% | • 2015: | 66% |
| • 2005: | 29% | • 2016: | 70% |
| • 2006: | 42% | • 2017: | 73% |
| • 2007: | 51% | • 2018: | 68% |
| • 2008: | 54% | • 2019: | 73% |
| • 2009: | 62% | • 2020: | 75% |
| • 2010: | 64% | • 2021: | 77% |

In 2021, 77% of adults accessed the Internet using broadband at home. The following are the demographics of these Internet users (source: Pew Research Center):

Gender

- Female: 77%
- Male: 77%

Education

- High school or less: 59%
- Some college: 80%
- College degree: 94%

Ethnicity/Race

- Black: 71%
- Caucasian: 80%
- Hispanic: 65%

Income

- Less than \$30,000: 57%
- \$30,000 to \$49,999: 74%
- \$50,000 to \$74,999: 87%
- \$75,000 or more: 92%

Community

- Urban: 77%
- Suburban: 79%
- Rural: 72%

PricewaterhouseCoopers (PwC, www.pwc.com) assessed consumer spending for broadband access in 2021 at \$66 billion.

1.3 Broadband Access Providers

Leichtman Research Group (www.leichtmanresearch.com) reported 108,354,742 households with broadband access at year-end 2021, distributed by provider as follows:

Cable Providers

- Comcast: 31,901,000
- Charter: 30,089,000
- Cox: 5,530,000
- Altice: 4,386,200
- Mediacom: 1,463,000
- Cable One: 1,055,000
- Breezeline/Atlantic Broadband: 716,778
- WOW (WideOpenWest): 511,700
- Total: 75,652,678

Telephone Providers

- AT&T: 15,504,000
- Verizon: 7,365,000
- CenturyLink/Lumen: 4,519,000
- Frontier: 2,799,000
- Windstream: 1,164,500
- TDS: 526,300
- Cincinnati Bell: 440,100
- Consolidated: 384,564
- Total: 32,702,064

1.4 Time Spent Online

A 2021 survey by Pew Research Center found that U.S. adults go online as follows:

- Almost constantly: 31%
- Several times a day: 48%
- About once a day: 6%
- Several times a week: 4%
- Less than several times a week: 4%
- Never: 7%

“Overall, 85% of Americans say they go online on a daily basis. That figure includes the 31% who report going online almost constantly.”

Pew Research Center, 4/7/21

The demographics of U.S. adults that go online ‘almost constantly’ are as follows:

Gender

- Female: 30%
- Male: 32%

Education

- High school or less: 23%
- Some college: 29%
- College degree: 42%

Ethnicity/Race

- Black: 37%
- Caucasian: 28%
- Hispanic: 36%

Income

- Less than \$30,000: 27%
- \$30,000 to \$49,999: 30%
- \$50,000 to \$74,999: 29%
- \$75,000 or more: 40%

Community

- Urban: 37%
- Suburban: 30%
- Rural: 23%

1.5 Devices Used For Internet Connection

Since 2000, the Center for the Digital Future (www.digitalcenter.org), University of Southern California, Annenberg School for Communication has conducted the Digital Future Project.

The *Digital Future Project 2021* reported devices used to connect to the Internet as follows (percentage of Internet users):

- Mobile phone: 93%
- Desktop computer: 89%
- Laptop computer: 79%
- Tablet: 65%

By device, eMarketer (www.emarketer.com) assessed the number of U.S. Internet users as follows:

	Dual Desktop/Laptop and Mobile Users	Desktop/Laptop Only Users	Mobile Only Users	Total
• 2015:	204.0 million	24.7 million	32.1 million	260.8 million
• 2016:	210.4 million	20.3 million	36.6 million	267.4 million
• 2017:	214.6 million	17.9 million	40.7 million	273.3 million
• 2018:	219.3 million	15.2 million	44.5 million	278.0 million
• 2019:	221.1 million	12.9 million	47.2 million	281.2 million
• 2020:	222.6 million	11.5 million	49.8 million	283.9 million
• 2021:	223.5 million	10.7 million	52.3 million	286.4 million

Similarweb (www.similarweb.com) assesses U.S. Internet traffic share by platform in January 2022 as follows:

- Mobile: 53.4%
- Desktop: 43.8%
- Tablet: 2.8%

1.6 Use Of Digital Media

eMarketer assesses time spent by adults (ages 18 and older) with digital media as follows (hours:minutes per day):

	2019	2020	2021	2022	2023
• Mobile (non-voice):	3:45	4:16	4:23	4:29	4:35
- audio:	1:07	1:10	1:16	1:19	1:22
- social networks:	0:52	1:03	1:03	1:03	1:04
- video:	0:42	0:49	0:51	0:53	0:55
- other:	1:05	1:15	1:13	1:14	1:14
• Desktop/laptop:	1:54	2:03	1:59	1:56	1:56
- video:	0:23	0:26	0:26	0:25	0:25
- audio:	0:16	0:20	0:20	0:20	0:20
- social networks:	0:07	0:07	0:07	0:06	0:06
- other:	1:08	1:09	1:06	1:04	1:04
• Other connected devices:	1:10	1:30	1:38	1:44	1:49
• Total digital:	6:49	7:50	7:59	8:09	8:20

1.7 Activities By Adult Internet Users

The *Digital Future Project* reported the frequency that adult Internet users engage in various online activities as follows:

Browse The Web

- Several times a day: 35%
- Daily: 33%
- Weekly: 15%
- Monthly: 5%
- Less than monthly: 7%
- Never: 6%

Buy Things

- Several times a day: 2%
- Daily: 5%
- Weekly: 28%
- Monthly: 34%
- Less than monthly: 25%
- Never: 7%

Check Email

- Several times a day: 52%
- Daily: 31%
- Weekly: 8%
- Monthly: 2%
- Less than monthly: 3%
- Never: 4%

Compare Prices Of Products/Services

- Several times a day: 3%
- Daily: 12%
- Weekly: 34%
- Monthly: 22%
- Less than monthly: 17%
- Never: 12%

Distance Learning For A Degree Or Job Training

- Several times a day: 2%
- Daily: 5%
- Weekly: 5%
- Monthly: 6%
- Less than monthly: 17%
- Never: 66%

Download/Listen To Music

- Several times a day: 20%
- Daily: 22%
- Weekly: 19%
- Monthly: 9%
- Less than monthly: 15%
- Never: 16%

Download/Watch Videos

- Several times a day: 16%
- Daily: 24%
- Weekly: 21%
- Monthly: 10%
- Less than monthly: 13%
- Never: 17%

Find/Check A Fact

- Several times a day: 13%
- Daily: 24%
- Weekly: 30%
- Monthly: 13%
- Less than monthly: 12%
- Never: 8%

Gamble

- Several times a day: 2%
- Daily: 3%
- Weekly: 6%
- Monthly: 3%
- Less than monthly: 14%
- Never: 74%

Get Information For School/Work (among students only)

- Several times a day: 31%
- Daily: 37%
- Weekly: 19%
- Monthly: 4%
- Less than monthly: 3%
- Never: 6%

Get Product Information

- Several times a day: 5%
- Daily: 20%
- Weekly: 35%

- Monthly: 19%
- Less than monthly: 16%
- Never: 6%

Instant Messaging/Chat

- Several times a day: 27%
- Daily: 29%
- Weekly: 15%
- Monthly: 6%
- Less than monthly: 12%
- Never: 12%

Investing

- Several times a day: 1%
- Daily: 3%
- Weekly: 4%
- Monthly: 5%
- Less than monthly: 14%
- Never: 74%

Listen To Online Radio

- Several times a day: 6%
- Daily: 15%
- Weekly: 14%
- Monthly: 9%
- Less than monthly: 17%
- Never: 39%

Look At Religious/Spiritual Sites

- Several times a day: 2%
- Daily: 10%
- Weekly: 12%
- Monthly: 7%
- Less than monthly: 20%
- Never: 49%

Look At Sites With Sexual Content

- Several times a day: 2%
- Daily: 6%
- Weekly: 15%
- Monthly: 8%
- Less than monthly: 12%
- Never: 57%

Look For Health Information

- Several times a day: 3%
- Daily: 8%
- Weekly: 21%
- Monthly: 25%
- Less than monthly: 31%
- Never: 13%

Look For Humorous Content

- Several times a day: 8%
- Daily: 18%
- Weekly: 16%
- Monthly: 9%
- Less than monthly: 22%
- Never: 27%

Look For Jobs/Work

- Several times a day: 4%
- Daily: 6%
- Weekly: 8%
- Monthly: 9%
- Less than monthly: 29%
- Never: 45%

Look For News

- Several times a day: 14%
- Daily: 35%
- Weekly: 21%
- Monthly: 8%
- Less than monthly: 12%
- Never: 10%

Look For Travel Information

- Several times a day: 2%
- Daily: 5%
- Weekly: 11%
- Monthly: 22%
- Less than monthly: 42%
- Never: 18%

Look Up A Definition

- Several times a day: 7%
- Daily: 17%
- Weekly: 31%

- Monthly: 19%
- Less than monthly: 18%
- Never: 8%

Make Travel Reservations

- Several times a day: 1%
- Daily: 2%
- Weekly: 4%
- Monthly: 14%
- Less than monthly: 50%
- Never: 30%

Make/Receive Phone Calls

- Several times a day: 7%
- Daily: 11%
- Weekly: 14%
- Monthly: 8%
- Less than monthly: 19%
- Never: 41%

Online Dating

- Several times a day: 2%
- Daily: 6%
- Weekly: 5%
- Monthly: 2%
- Less than monthly: 14%
- Never: 72%

Pay Bills/eBanking

- Several times a day: 3%
- Daily: 11%
- Weekly: 30%
- Monthly: 31%
- Less than monthly: 6%
- Never: 21%

Play Games

- Several times a day: 14%
- Daily: 20%
- Weekly: 16%
- Monthly: 7%
- Less than monthly: 12%
- Never: 32%

Post On Discussion Boards

- Several times a day: 6%
- Daily: 10%
- Weekly: 12%
- Monthly: 10%
- Less than monthly: 22%
- Never: 40%

Post On Social Networking Sites

- Several times a day: 10%
- Daily: 15%
- Weekly: 20%
- Monthly: 12%
- Less than monthly: 12%
- Never: 32%

Post Self-Made Content (Photos/Videos)

- Several times a day: 3%
- Daily: 8%
- Weekly: 14%
- Monthly: 14%
- Less than monthly: 19%
- Never: 42%

Re-post/Share Links/Content Created By Others

- Several times a day: 5%
- Daily: 12%
- Weekly: 22%
- Monthly: 11%
- Less than monthly: 21%
- Never: 29%

Read Blogs

- Several times a day: 4%
- Daily: 10%
- Weekly: 16%
- Monthly: 12%
- Less than monthly: 18%
- Never: 40%

Sell Things

- Several times a day: 1%
- Daily: 2%
- Weekly: 4%

- Monthly: 11%
- Less than monthly: 32%
- Never: 52%

Surf the Web (i.e., go online without a specific destination)

- Often: 31%
- Sometimes: 51%
- Never: 18%

Visit Social Networking Sites

- Several times a day: 32%
- Daily: 28%
- Weekly: 12%
- Monthly: 5%
- Less than monthly: 7%
- Never: 16%

1.8 Use Of Paid Content

The *Digital Future Project* reported the frequency that adult Internet users access various types of online paid content as follows:

Music Subscription

- Often: 31%
- Sometimes: 17%
- Rarely: 13%
- Never: 39%

News - Pay

- Often: 7%
- Sometimes: 9%
- Rarely: 9%
- Never: 75%

Sports - Pay

- Often: 7%
- Sometimes: 10%
- Rarely: 11%
- Never: 71%

HEALTH & HEALTHCARE

14.1 Telehealth

Telehealth, or telemedicine, typically involves physicians using interactive video and/or store-and-forward consultations to diagnose or treat patients. Interactive video allows specialists to communicate with patients who are in another location using monitors and specially adapted equipment. Store-and-forward techniques include physicians sending images, x-rays, and other patient information electronically to a remote specialist.

According to a 2022 Harris Poll (www.theharrispoll.com), 32% of adults have used telehealth; 15% did so for the first time during the pandemic. Nineteen percent (19%) reported that they used telehealth during the pandemic, and of those, 79% had not used such services prior to the pandemic.

Eighty-two percent (82%) of those who have used telehealth services say they like it. Even non-users find the idea of telehealth services appealing; 61% say they like the idea of using telehealth services.

U.S. Telehealth Trends 2022, by Insider Intelligence (www.insiderintelligence.com), reported that among adults that have used telehealth, types of services have been as follows (percentage of respondents):

- Primary care: 54%
- Prescription refill: 26%
- Behavioral health: 24%
- Chronic care (e.g., allergies, diabetes): 16%
- Urgent care: 13%
- Dermatology: 9%
- Pediatrics: 9%
- Neurology: 6%
- Cardiology: 6%
- Post-op: 4%
- Oncology: 3%
- Urology: 3%
- Other: 8%

14.2 Search For Health Information

According to the Pew Internet & American Life Project (www.pewinternet.org), 80% of online adults search for health information on the Internet. The following are

percentages of Internet users who have performed an online search related to specific health topics:

- Specific disease or medical problem: 66%
- Certain medical treatment or procedure: 55%
- Exercise or fitness: 52%
- Prescription or over-the-counter drugs: 45%
- Health insurance, including Medicare/Medicaid: 37%
- Alternative treatments or medicines: 35%
- How to lose weight or weight control: 33%
- Depression, anxiety, stress, or mental health: 28%
- Experimental treatments or medicines: 20%
- How to stay healthy on a trip overseas: 12%
- Other health issues: 26%

“Consumers’ use of the Internet for health information is now on par with their use of the more traditional, longstanding sources of books, magazines and newspapers, and friends or relatives.”

American Hospital Association

The Harris Poll found that 89% of online adults, or 74% of all adults, had used the Internet to search for health-related information in the prior year; 60% had done so in the prior month. Among those who searched for health-related information in the prior month, 19% did so 10 or more times.

Adults who have looked online for information about health topics say they usually use the following sources:

- Search engines: 69%
- Medical websites: 62%
- Forums: 16%
- Social media websites: 8%
- Other: 11%

Fifty-seven percent (57%) of those who conducted online searches discussed the information they found with their doctor.

A survey by Makovsky Health (www.makovskyhealth.com) found that adults spend, on average, 52 hours looking for health information on the Internet annually. Online resources used are as follows (percentage of respondents):

- WebMD: 53%
- Wikipedia: 22%
- Health magazine websites: 19%
- Advocacy group websites: 16%
- YouTube: 10%
- Facebook: 10%
- Blogs: 10%
- Pharmaceutical company websites: 9%

14.3 Websites, Apps, And Social Media

Based on the number of monthly visitors in January 2022, SimilarWeb (www.similarweb.com) ranked the top U.S.-based health and healthcare websites as follows:

	Monthly Visits	Unique Visitors
Health Conditions		
• WebMD.com:	39.8 million	25.6 million
• VeryWellHealth.com:	7.9 million	6.3 million
• health.clevelandclinic.org:	2.9 million	2.5 million
Children’s Health		
• Kidshealth.org:	3.5 million	2.8 million
• Babycenter.com:	2.9 million	2.0 million
• Parents.com:	2.0 million	1.4 million
Mental Health		
• PsychologyToday.com:	9.1 million	5.3 million
• SimplePractice.com:	7.1 million	870,000
• VeryWellMind.com:	6.8 million	4.8 million
• doxy.me:	4.2 million	1.5 million
Women’s & Family Health		
• WomensHealthmag.com:	5.5 million	4.6 million
• VeryWellFamily.com:	2.4 million	1.9 million
• PlannedParenthood.org:	1.7 million	1.3 million

According to Research 2 Guidance (www.research2guidance.com), there are over 350,000 medical and health apps in use, with an estimated 3.5 billion downloads each year. Over 3,000 health organizations have developed at least one app.

Most hospitals use social media to communicate with patients. The Mayo Clinic reported hospital use of various social sites as follows:

- Facebook: 1,305
- FourSquare: 1,078
- Twitter: 1,021

- YouTube: 721
- LinkedIn: 658
- Blog: 216

14.4 Virtual Physician Visits

Parks Associates (www.parksassociates.com) reported a nearly three-fold increase in virtual visits with healthcare practitioners, or telehealth, brought about by the Covid-19 pandemic, from 15% of adults who had a remote visit in 2019 to 41% that did so in 2020.

The Harris Poll found that of the 44% of U.S. adults that have used telehealth; 27% did so for the first time during the pandemic. Seventy-nine percent (79%) of those who used telehealth said they are likely to continue to do so after the pandemic.

GoodRx (www.goodrx.com) reported a similar finding in its 2021 survey: 17% of adults used virtual visits prior to the pandemic and 47% did so during the pandemic. Forty percent (40%) of patients said they interacted more with providers because of virtual visits. Sixty percent (60%) of those who used telehealth, said that they plan to use a hybrid model of care post-pandemic, combining in-person and virtual care; 12% plan to discontinue virtual appointments and opt for only in-person visits. Among adults who did not use telehealth during the pandemic, 62% said they did not have an issue that required a virtual physician visit.

“Consumers flocked to telehealth amid the pandemic and became accustomed to its convenience, accessibility, and cost-friendly entry point.”

eMarketer, 11/15/21

The *2021 Consumer Adoption Report*, by Rock Health (www.rockhealth.com), found that in 2020, 53% of adults indicated greater satisfaction with video visits compared with in-person care. In 2021, their satisfaction levels dropped to 43%. Rock Health suggested that one reason for the drop in consumer satisfaction was that people began to view telemedicine as an alternative to in-person care in 2021, rather than a necessary replacement for traditional care.

14.5 Remote Patient Monitoring

Remote patient monitoring is the use of digital technologies to monitor and capture medical and other health data from patients and electronically transmit this

information to healthcare providers for assessment and, when necessary, recommendations and instructions. The most common types of monitoring are senior home monitoring, cardiac monitoring, and chronic/post-acute care management.

eMarketer assessed the number of U.S. patients using remote monitoring as follows:

- 2020: 29.1 million
- 2021: 39.3 million
- 2022: 45.1 million
- 2023: 53.1 million
- 2024: 60.6 million

“Remote patient monitoring has skyrocketed ... due to accelerated adoption of the technology during the pandemic by hospitals and patients alike.”

eMarketer, 10/12/21
