Meet Today’s Healthcare Team:

PATIENTS + DOCTORS + MACHINES

Accenture 2018 Consumer Survey on Digital Health
Healthcare consumers are more open to using intelligent technologies, sharing data and allowing a combination of man and machine to power a new model of healthcare.

Several healthcare technology advancements are converging to deliver significant benefits to consumers. According to research from Accenture, healthcare consumers continue to show strong use of digital technology for self-service care — and the numbers are rising each year. In 2018, 75 percent of US consumers surveyed said technology is important to managing their health, up from 73 percent in 2016.

Patients are increasingly sophisticated in their use of healthcare technology, and increasingly open to intelligent technologies taking on elements of their care, such as medical consultations and monitoring.

In some areas, such as patient portals, healthcare providers are keeping pace with demand. But when it comes to virtual care, robotics and artificial intelligence (AI), consumer interest is surpassing what providers currently offer. There is an opportunity for providers to differentiate themselves by offering new, technologically advanced services that satisfy consumer interest and expectations. These services typically help to advance a new model of care in which patients, doctors and machines work together.
Consumers are plugged in

Consumers are increasingly using self-service digital health tools that go beyond websites. Accenture research shows increases across the board in the use of mobile, electronic health records (EHRs), social media, wearables, smart scales and online communities.

Websites continue to be the most commonly used technology, but usage has remained stable since 2016. Meanwhile, use of Internet of Health Things solutions like smart scales and wearables and social platforms such as online communities has nearly doubled in two years (see Figure 1).

Use of health apps and wearables is rising strongly

Healthcare consumers are showing that they are willing to wear technology to track their fitness, lifestyle and vital signs.

Use of wearables has more than tripled since 2014, from 9 percent to 33 percent. Nearly half (48 percent) of healthcare consumers are using mobile/tablet apps, compared to just 16 percent in 2014 (see Figure 2).

**Figure 1. Healthcare consumers are increasingly using technology to manage their health**

**Figure 2. Significant increase in use of health apps and wearable devices**

Source: Accenture 2018
Consumers are willing to share data from wearable devices

Consumers are willing to share their wearable health device data with their doctor (90 percent) and nurse or other healthcare professional (88 percent).

Compared to 2016, more are now willing to share wearables data with their health insurance plan (up from 63 percent in 2016 to 72 percent in 2018), and with online communities or other app users (up from 38 percent in 2016 to 47 in 2018) (see Figure 3). Consumers have less interest in sharing wearable device data with their employer (38 percent) or a government agency (41 percent).

Figure 3. Healthcare consumers will share health data from their wearable devices with a variety of audiences

Consumers see wearables as beneficial for health

Healthcare consumers agree that using wearable health devices to monitor glucose, heart rate, physical activity, sleep or weight helps with:

- 75% Understanding their health condition
- 69% Overall quality of care
- 73% Engagement with their health
- 69% Patient/physician communication
- 73% Monitoring the health of a loved one

Source: Accenture 2018
Lab test results seen as the most helpful data in EHRs

More than four in 10 survey participants (44 percent) have accessed their EHRs. Their reasons for accessing them include keeping informed (36 percent) and curiosity about what is in their EHR (19 percent).

Survey respondents say lab work and blood-test results are the most helpful EHR information (67 percent). Fifty-five percent cite “physician notes from my medical visits or about my medical condition in general” as being helpful.

When managing their health, patients also find the EHR useful as a way to access information about their prescription medication history (41 percent) and X-rays or nuclear imaging results (31 percent) (see Figure 4).

**Figure 4. The most helpful information contained in the EHR**

<table>
<thead>
<tr>
<th>Information</th>
<th>% Helpful</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lab work &amp; blood-test results</td>
<td>67%</td>
</tr>
<tr>
<td>Physician notes from medical visits/about medical condition in general</td>
<td>55%</td>
</tr>
<tr>
<td>Prescription medication history</td>
<td>41%</td>
</tr>
<tr>
<td>X-rays or nuclear imaging results</td>
<td>31%</td>
</tr>
<tr>
<td>Immunization status</td>
<td>23%</td>
</tr>
<tr>
<td>Personal profile information, such as demographics</td>
<td>23%</td>
</tr>
<tr>
<td>Billing information</td>
<td>20%</td>
</tr>
</tbody>
</table>

Source: Accenture 2018
Healthcare consumers are taking advantage of virtual, anytime, anywhere care

Use of virtual care services continues to rise. One-quarter of consumers surveyed (25 percent) say they have received virtual healthcare services, up from 21 percent in our 2017 virtual healthcare research (see Figure 5).

More healthcare consumers are also taking part in remote consultations (16 percent, up from 12 percent in 2016) and remote monitoring (14 percent, up from 9 percent in 2016).

Of those who have accessed care virtually, 74 percent were satisfied with the experience. Nearly half (47 percent) of all respondents would prefer a more immediate, virtual appointment over a delayed, in-person appointment.

Regardless of their health status, consumers want these virtual options so they can receive care on their own terms: there is little difference in the preferences of those who are chronically ill and those who are not chronically ill.
Appetite for virtual care is increasing for a variety of activities

Given the choice, healthcare consumers would use virtual care for a variety of activities – from e-visits to diagnosis to group therapy.

Most notably, nearly three-quarters of healthcare consumers (73 percent) would use virtual care for an after-hours appointment, and about two-thirds (65 percent) would use it for a follow-up appointment after seeing a doctor or other healthcare professional in person. More than six in 10 (62 percent), meanwhile, would discuss a specific health concern virtually with a doctor or other healthcare provider (see Figure 6).

Figure 6. Top potential uses of virtual care

- An after-hours appointment (e.g. at night or on a weekend) 73%
- Attend a class about a specific condition you have (such as diabetes) 71%
- Have a follow-up appointment (after seeing a doctor or healthcare professional in person) 65%
- Discuss a specific health concern with a doctor or other healthcare provider 62%
- Get follow-up care services in my home after being hospitalized 62%
- Participate in family member’s (child or elderly parent) medical appointment 59%
- Have an exam for a non-urgent condition such as rash, sore throat, sinus condition 57%
- Participate in mental health group therapy/counseling 52%
- Have an exam by a specialist physician for an urgent concern (such as a possible heart condition) 29%
- Have an annual physical exam 28%

Source: Accenture 2018
Figure 7. Top advantages of virtual versus in-person healthcare services

**VIRTUAL**
- Reducing medical costs to patients: 54%
- Accommodating patients’ schedules: 49%
- Providing timely care to patients: 43%

**IN PERSON**
- Providing quality care to patients: 64%
- Engaging patients in their health/healthcare decisions: 50%
- Diagnosing problems faster: 45%

Source: Accenture 2018

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**Perceived advantages of virtual care**

More than half (54 percent) of healthcare consumers believe virtual care reduces medical costs to patients. Consumers also see advantages in accommodating patients’ schedules (49 percent) and providing timely care (43 percent) (see Figure 7).

Some groups – those who are younger, live in big cities, have stronger healthcare independence, consider their lives to be too busy, work full time, have higher tech confidence, are more open to change, and are more often under stress – are much more likely to want a quick virtual appointment.

At the same time, consumers perceive the top advantages of in-person care to be providing quality care to patients (64 percent), engaging patients in their healthcare decisions (50 percent) and diagnosing problems faster (45 percent).
Machines are becoming a welcome part of the care team

Consumers are more readily adopting technology that automates processes or judgments previously carried out by humans. Nearly one in five consumers (19 percent) have used health services that are powered by AI, such as virtual clinicians and home-based diagnostics.

Healthcare consumers say they are likely to use a variety of intelligent health technologies, including home devices that test blood for a variety of indicators (66 percent), intelligent virtual health assistants (61 percent) and virtual nurses that monitor their health condition, medications and vital signs at home (55 percent) (see Figure 8).

Healthcare consumers see advantages in AI-powered health services

Patients like the availability, time savings and personalized insights from AI. When asked whether they would use an artificially intelligent virtual doctor provided by their health service, nearly half (47 percent) say they would use it because it is available whenever they need it.

Some, however, say they like visiting their doctor (29 percent), they do not understand enough about how AI works (26 percent) and they do not like to share their data (23 percent) (see Figure 9).

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**Figure 8. Intelligent health technologies consumers are most likely to use**

- A device that you could use at home to test your blood for a variety of indicators: 66%
- An intelligent virtual health assistant that helps estimate costs, schedule appointments, explain coverage, bills and payment options: 61%
- An intelligent virtual coach: 57%
- AI technology that analyzes your genome/DNA to reveal genetic health risks: 56%
- An intelligent virtual nurse that monitors your health condition, medications and vital signs at home: 55%
- Health advice from an app or online service that uses AI to predict your long-term health risks: 50%
- An intelligent virtual clinician that helps to diagnose health issues and navigate you to the right treatment options: 50%
- A surgical procedure where the surgeon is assisted by an intelligent robot in an operating theater: 38%
- A robotic device that draws a blood sample from a vein in your arm for testing purposes: 33%

**Figure 9. Reasons why healthcare consumers will/will not use an AI-powered virtual doctor**

- Why use AI?
  - Available whenever I need it: 47%
  - Saves time by avoiding a trip to the doctor: 36%
  - Assesses vast amounts of relevant information: 24%

- Why not?
  - I like visiting the doctor: 29%
  - I don’t understand enough about how...: 26%
  - I don’t like to share my data: 23%

Source: Accenture 2018
When asked to imagine that their provider has given them access to new AI-powered services, respondents say they are likely to use these services for a variety of reasons: to get information after hours (67 percent), for help with navigating healthcare services (63 percent) and for advice about lifestyle habits (58 percent) (see Figure 10).

Healthcare consumers are increasingly comfortable with robot-assisted surgery. Respondents were asked to imagine they required spinal surgery to fix chronic, debilitating back pain from degenerative disc disease. In this scenario, before they are informed of the benefits, about one in three would prefer AI-assisted surgery and surgery planning over traditional approaches (see Figure 11). More than half (56 percent) would prefer AI-assisted surgery after learning about its benefits (these benefits were based on real clinical data). Younger people are more open to robot-assisted surgery. Before being informed of the benefits, 46 percent of those aged 18-44 would prefer it.

According to research by Accenture, robot-assisted surgery is the AI application with the greatest near-term impact, likelihood of adoption and value to the health economy.
Next-generation healthcare is here

1. This research suggests that emerging technologies are shifting the composition of the care team.

2. Consumers are increasingly using digital technologies to manage their own health, they are adopting virtual care, and they see the advantages of harnessing the collective power of humans and machines.

3. It is no exaggeration to describe this as the emergence of a new era in healthcare.

4. Patients, machines and doctors can work together to improve the accessibility, effectiveness and affordability of healthcare.
Accenture commissioned a seven-country survey of 7,905 consumers aged 18+ to assess their attitudes toward healthcare technology, modernization and service innovation. It is the latest in a series of annual health technology surveys tracking the perspectives of consumers across themes ranging from electronic health records and health management to virtual health and cybersecurity. The online survey included consumers across seven countries: Australia (1,031), England (1,043), Finland (848), Norway (768), Singapore (957), Spain (957), and the United States (2,301). The survey was conducted by Longitude on behalf of Accenture between October 2017 and January 2018. Where relevant, the survey uses select findings from the Accenture 2016 Consumer Survey on Patient Engagement and the Accenture 2017 Consumer Survey on Virtual Health.

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