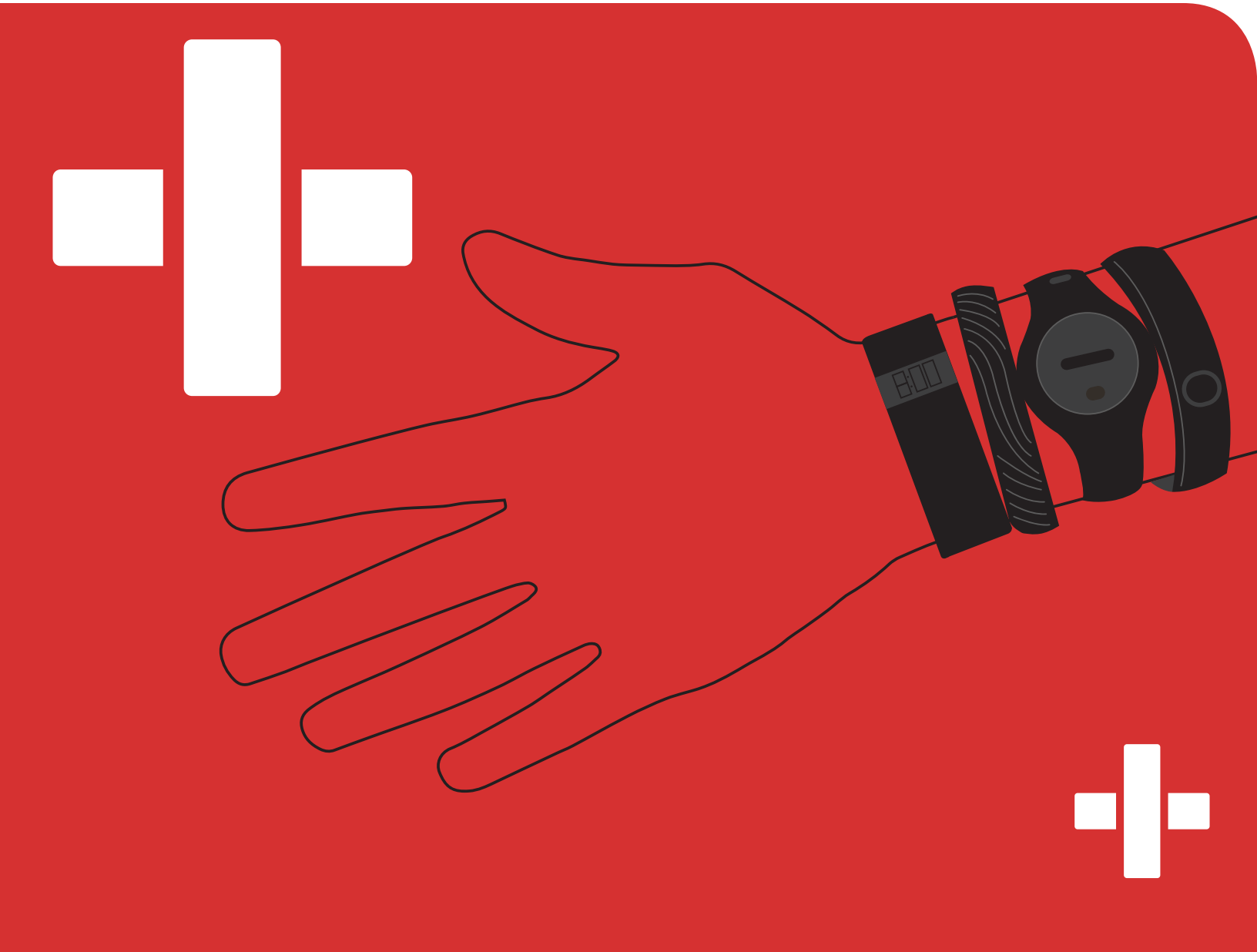
healthmine™

The 2016 HealthMine Digital Health Report

State and Impact of Digital Health Tools

SPRING/SUMMER 2016



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Overview

The objective of the HealthMine Digital Health Report is to give health plan sponsors (payers and employers) insight into the adoption and impact of digital health tools.

Consumer use of digital health tools is growing rapidly. According to research firm Accenture, using digital health tools in primary care could save the US healthcare system $10 billion annually. As the aging population and prevalence of chronic disease in America grows, internet-connected health devices and applications can help support primary and specialty healthcare. Digital health tools can also improve consumers' direct visibility into and control over their vital health metrics and ongoing health needs. As a result, HealthMine sought to understand how consumers are using digital health and how it impacts their lives.

Data and analysis in this report may be useful to executives and benefits leaders in better engaging individuals in their population to maintain or improve their health. The ultimate goal is to improve their lives and lower their healthcare costs.

Data for this report was gathered from The HealthMine Digital Health Survey, which was fielded and analyzed in March/April 2016 to consumers who use internet connected health devices or applications. Respondents are adults enrolled in a health plan between the ages of 26 and 64.

Standard questions covered in this survey include consumer preferences in digital health tools, their state of health, their ability to share and access data from these tools, and the impact of these tools on their health and healthcare costs.

Executive Summary

The HealthMine Digital Health Survey draws on data collected from 500 consumers who use internet-connected health devices and/or applications, fielded in March 2016. Forty-six percent (46%) of respondents were millenials, ages 25-34 and 58% were female.

There are now nearly 165,000 health-related apps which run on Apple's iOS and Google's Android. PwC, a consulting firm, forecasts that by 2017 such apps will have been downloaded 1.7 billion times. Add to that 10 million activity trackers and 7 million smart watches shipped by the end of 2014 (ABI Research), as well as a growing crop of other internet-connected health devices.

Digital health technologies encompass a wide variety of tools, ranging from wearable sensors and portable diagnostic equipment to data-driven software platforms, telemedicine tools, electronic health records and mobile health care apps. They are growing rapidly both in development and adoption. These tools have the potential to help consumers become more engaged in their own healthcare and to enable them to get care in more convenient, cost-effective ways.

Top Findings

+ Usage/Adoption:

The most popular digital health tools today are fitness and exercise apps (50%). Disease management, smoking cessation and telemedicine have the lowest adoption of all digital health tools.

+ Data Access:

75% of consumers who use mobile/internet-connected health applications are willing to share the data they collect with their doctor/healthcare provider, but only 32% say this happens automatically.

+ Electronic Health Records:

60% of digital health users say they have electronic health records (EHRs), but only 22% use them to help make medical decisions.

+ Telemedicine:

93% of consumers who used telemedicine say it lowers their healthcare costs, but 39% of digital health users still haven't even heard of telemedicine.

+ Impact:

76% who use digital health tools say they improve health, and 57% say digital health tools lower their healthcare costs.

+ Wellness Programs:

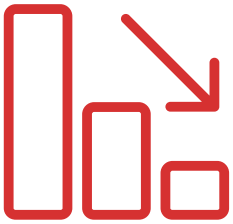
52% of digital health users are enrolled in a wellness program, and 33% received their health app/device from their wellness program. But while 59% suffer from a chronic condition, only 7% of these individuals are using a disease management tool.

Most Popular Tools Among Digital Health Users:

1. Fitness/exercise/pedometer app **50%**
2. Food/nutrition app **46%**
3. Weight loss app **39%**

Digital Health Usage

Thirty-three percent of U.S. consumers are using mobile health apps, compared with just 16% in 2014, according to a recent report by Accenture. According to HealthMine's survey, fitness and exercise apps/devices are the most popular among consumers today (50%), followed by food/nutrition (46%), and weight loss (39%). Thirty-eight percent (38%) of digital health users have wearable activity trackers.



Disease management, smoking cessation and telemedicine apps have the lowest adoption of all digital health tools

Health Apps and Devices Being Used By Consumers

Digital Health Tool	Percent*
Fitness/exercise/pedometer app	50%
Food/nutrition app	46%
Weight loss app	39%
Wearable activity tracker (Fitbit, Jawbone, Apple Watch, etc.)	38%
Heart rate app	30%
Pharmacy app	28%
Patient portal	22%
Sleep app	22%
Blood pressure app	19%
Smart/wireless scale	16%
Stress app	15%
Symptoms navigator	14%
Medication tracker	14%
Mood/emotional well-being app	14%
Price comparison app for prescription drugs	11%
Price comparison app for medical/provider services	10%
Blood glucose monitor	9%
Internet connected thermometer	8%
Disease management app	7%
Smoking cessation app	6%
Telemedicine app	5%
Other	1%

*Total percentages may exceed 100% in total because respondents were able to choose multiple responses.

Digital health users are engaged with their digital health tools. Fifty-nine percent (59%) use their digital health devices/apps at least once per day, and 89% say their digital health tools are easy to use. What's more, 83% say it is easy to understand the data/measurements from their digital health devices/apps.

How often do you use your digital health tool(s)?

Frequency	Percent*
2 or more times per day	32%
Once per day	26%
A few times per week	20%
A few times per month	9%
Once per week	7%
Once per month or less frequently	6%

*Total percentages may exceed 100% in total because respondents were able to choose multiple responses.

Digital Health Data Access

Consumer tracking of personal health data is going well beyond just fitness. People are increasingly measuring their heart rate, sleep, blood pressure and more using personal digital health tools. However, a significant amount of digital health data is not reaching doctors or health plans. That data can help inform decisions about care, as well as guide preventative measures for better health.

42% say the digital health data they collect goes nowhere

Our survey found a "disconnect" between where consumers would like their self-collected health data to go, and how easy it is to share it. Three quarters of consumers who use mobile/internet-connected health applications are willing to share the data they collect with their doctor/healthcare provider, but only 32% say this happens automatically. Forty-two percent of consumers say the digital health they collect goes nowhere.

Digital Health Data Sharing/Access

3rd Party	Percent of Consumers Willing To Share	Percent with Automatic Access
Doctor/provider	75%	32%
Health/insurance plan	39%	17%
Family/friends	37%	10%
Scientific research	16%	4%
Employer	9%	6%
Nowhere	7%	42%

*Total percentages may exceed 100% in total because respondents were able to choose multiple responses.

46% who use digital health tools say: **"My physician does not incorporate the data into my healthcare."**

Not surprisingly, 46% of respondents say their doctor is not incorporating self-collected health data in guiding their healthcare.

Wellness programs have the potential to be a bridge—connecting data generated by a growing crop of digital health tools—to patients' complete health record. In the HealthMine survey, 52% of respondents were enrolled in a wellness program. Sixty percent (60%) of wellness program participants report that their wellness program connects the data from their digital health tools to the rest of their health information (medical record, pharmacy information and insurance benefits).

When it comes to sharing digital health data with health plans and employers, consumers are more reluctant primarily due to concerns about privacy. This is despite the fact that most employers use a third-party administrator to assure employee right and privacy under HIPAA.

Why don't you share your mobile health data with your health plan/insurance provider?

Reason for Not Sharing	Percent*
Protect my privacy	45%
I don't know how	25%
I don't see the benefit	24%
It's too hard/takes too much time	11%
Other	3%

Why don't you share your mobile health data with your employer?

Reason for Not Sharing	Percent*
Protect my privacy	45%
I don't know how	25%
I don't see the benefit	24%
It's too hard/takes too much time	11%
Other	3%

*Total percentages may exceed 100% in total because respondents were able to choose multiple responses.

What's more, although 63% of respondents receive digital reminders for necessary health actions in the form of emails or text messages from either their doctor, plan sponsor or digital health tool, most would prefer not to.

Would you like to receive text or email reminders/updatesabout your health/condition?

Preference for text/email health updates	Percent*
No	58%
Yes—from my doctor	24%
Yes—from my mobile health apps/internet-connected devices	20%
Yes—from my wellness program	14%
Yes—from my insurance plan sponsor	7%

*Total percentages may exceed 100% in total because respondents were able to choose multiple responses.

Electronic Health Records

Electronic health records (EHRs) have the potential to make personal healthcare data available whenever and wherever needed. More than 80% of physicians have adopted electronic health records (EHRs), and 60% of consumers who use digital health tools say they have an electronic health record. But most are accessing their health record to simply "stay informed." Only 22% using digital health are accessing EHRs to help make medical decisions.

Only **22%** use EHRs to help make medical decisions

Do you have an electronic health record?

Availability of EHRs	Percent*
Yes	60%
No	40%

Twenty-nine percent (29%) of those consumers who say they do have an EHR are not getting much benefit from it. Fifteen percent (15%) say it's hard to understand the information, and another 14% don't access their EHR.

Why do you want to access your EHR?

Motivation to Use EHRs	Percent*
Stay Informed	55%
Help with Making Medical Decisions	22%
Other	1%
I do not have an EHR	40%

*Total percentages may exceed 100% in total because respondents were able to choose multiple responses.

Are you able to access your electronic health record?

Access to EHRs	Percent*
Yes, and I do access it when I need to	71%
Yes, but it's hard to understand the information	15%
Yes, but I don't look at it	10%
No, I can't/don't know how to access it	4%

44% of consumers with access to an EHR are not able to see everything their doctor sees

What information do you have access to in your EHR?

Medical Information Accessible in EHRs*	Percent*
Lab work and blood results	69%
Prescription medication history	60%
Everything my doctor/provider sees	56%
Billing information	55%
Personal profile (demographics)	50%
Physician notes	47%
Immunization status	43%
X-rays/nuclear imaging results	35%
None of the above	1%

Although electronic health records are still in the early phases of consumer adoption, they have the potential to directly engage consumers in managing their health. Wellness programs can help bridge the gap between EHR adoption and understanding. They can do so by making the data in these records more accessible, meaningful and actionable for patients.

*Total percentages may exceed 100% in total because respondents were able to choose multiple responses.

Telemedicine

Telemedicine allows patients to connect with doctors and other care providers through smartphones, computers and other devices. It can be a convenient and cost-effective alternative to traditional healthcare. Remote visits tend to be faster and less expensive than most visits to the doctor's office, emergency rooms or urgent care clinics.

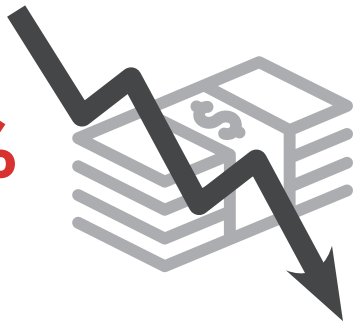
Telemedicine Adoption Slow, Despite Low Cost

39%

of Tech-Savvy Consumers Haven't Heard of Telemedicine

But

93%



Who Have Used Telemedicine Say It Lowered Their Healthcare Costs

Our survey found that 39% of digital health users have not heard of telemedicine. What's more, only one third of respondents say their health plan offers telehealth as an option. Fifty-five percent (55%) of respondents who have access to telemedicine have used it. And, 93% of those who have used telemedicine say it has lowered their healthcare costs.

*Total percentages may exceed 100% in total because respondents were able to choose multiple responses.

Despite the potential benefits of telehealth when used appropriately, many Americans still prefer traditional, in-person provider visits. Forty-two percent (42%) of respondents who haven't used telehealth say they prefer a doctor office visit. But, more than a quarter of consumers simply don't know when it is appropriate to use telemedicine versus traditional medicine.

Why Consumers Aren't Using Telemedicine

Reason for not using telehealth	Percentage*
Prefer to see a traditional provider	42
Don't know when it is appropriate to use	28
Don't trust a virtual provider to diagnose/treat me	14
Not sure if it's covered by my health insurance	14
Other	11

With education and guidance, more consumers may adopt telemedicine as a valuable channel for certain types of healthcare delivery. Consumers responded that they would consider using telehealth for the following services (as opposed to traditional medicine):

When Consumers Would Consider Using Telemedicine

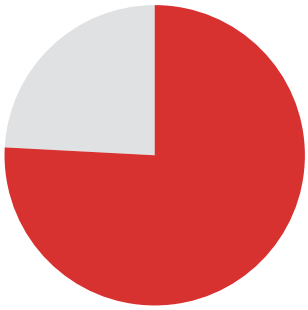
Medical service	Percentage*
Follow-up care for acute illness	44
Symptom tracking/diagnosis	44
Medication management/prescription renewal	44
Follow-up care for a chronic condition	34
Remote monitoring of vital signs	31
Behavioral/mental health	24
Nothing	11
Other	1

As health plan sponsors play a more significant role in educating their members about optimal options for treatment, telehealth will find its place in the health services market.

*Total percentages may exceed 100% in total because respondents were able to choose multiple responses.

Digital Health Impact

According to HealthMine's survey, the consistent use of digital health tools can drive up healthier behavior and drive down healthcare costs.



76% who use digitalhealth tools say they improve health

Consumers who use digital health tools believe they are working. Seventy-six percent (76%) of respondents say their health devices/apps have made them healthier. Another 57% report that using digital health tools has helped to lower their healthcare costs.

Has use of your mobile/smart health device/app changed your behavior with regard to managing your health?

Impact of Digital Health Tool Usage	Percent*
It's made me more healthy	76%
It hasn't really changed my behavior	20%
It's made me less healthy	3%

57% say using digital health tools lowers healthcare costs

*Total percentages may exceed 100% in total because respondents were able to choose multiple responses.

What's more, 88% of digital health users are planning to use more apps/devices in the near future, with stress apps and smart scales in the highest demand.

Which other mobile/Internet-connected health devices/apps are you most interested in using in the near future?

Stress app	21%
Smart/wireless scale	21%
Mood/emotional well-being app	18%
Sleep app	18%
Weight loss app	18%
Blood pressure app	18%
Heart rate app	17%
Food/nutrition app	16%
Wearable activity tracker (Fitbit, Jawbone, Apple Watch, etc.)	16%
Fitness/exercise/pedometer app	15%
Medication tracker	13%
Symptoms navigator	13%
Patient portal	12%
Internet connected thermometer	12%
Price comparison app for prescription drugs	12%
Price comparison app for medical/provider services	12%
Pharmacy app	11%
Blood glucose monitor	10%
Telemedicine app	8%
Disease management app	7%
Smoking cessation app	5%
None	12%

Despite the growth in health app and device usage, some consumers need more engagement and/or education to reap the benefits of these tools. HealthMine's survey found that, for those who are using digital health but not seeing the advantages, low usage is the number one reason, followed by a lack of understanding of what to do next/differently.

*Total percentages may exceed 100% in total because respondents were able to choose multiple responses.

Why has use of your mobile/smart health device/app not had a positive impact?

Impact of Digital Health Tool Usage	Percent*
I don't use it often enough	38%
I am not always sure what to do next/ differently	34%
It's disconnected from my other health information/doctor	12%
I don't always understand what the data means	11%

The benefits of connected health are just starting to be realized. Real-time data can help drive the right health actions at the right time. Improving health status one person at-a-time can add up to improved population health. In order for these tools to beneficial, the data they gather must be unified with a person's clinical 'big picture' to identify specific actions that improve health.

*Total percentages may exceed 100% in total because respondents were able to choose multiple responses.

Wellness Programs and Digital Health

While consumers report that digital health tools are helping, those who need them most may be underutilizing them. Fifty-nine percent (59%) of our survey respondents suffer from at least one chronic condition. But only 7% of these individuals are using a disease management tool, while 50% use a fitness/activity tracker device or app. Fifty-two percent (52%) of respondents are enrolled in a wellness program, and 33% received their health device/app from their wellness program.

33% received their health device/app from their wellness program

HealthMine survey respondents suffered from a range of chronic conditions, with mental illness, chronic pain and obesity among the most common:

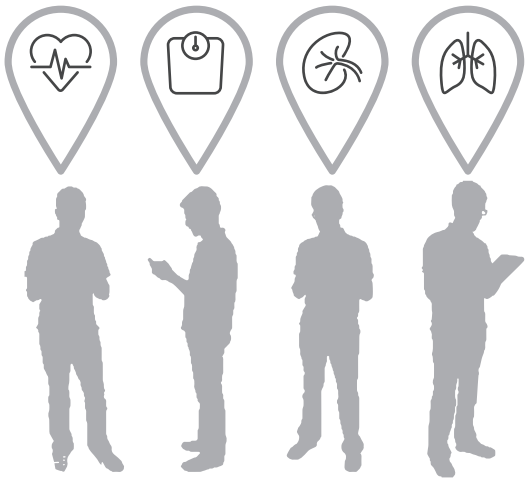
Digital Health Users Have Chronic Conditions

Chronic Condition*	Percent*
Mental illness (depression, anxiety, etc.)	18%
Chronic back, shoulder and/or neck pain	18%
Obesity	18%
Oral Health (cavities, gum disease)	14%
Heart disease/hypertension/high blood pressure	13%
Diabetes or pre-diabetes	12%
Autoimmune disease (Arthritis, lupus, IBD, MS, Crohn's, etc.)	9%
Pulmonary disease (Asthma, COPD, emphysema, cystic fibrosis, etc.)	7%
Eye disorder (macular degeneration, glaucoma, cataracts, etc.)	6%
Eating disorder	6%
Osteoporosis	5%
Cancer (prostate, colon, breast, ovarian, etc.)	3%
Alzheimer's/dementia	1%
Other	5%
No, I do not have a chronic condition	41%

*Total percentage exceeds 100% because many respondents have more than one chronic condition.

*Total percentages may exceed 100% in total because respondents were able to choose multiple responses.

More than half (52%) of these individuals are enrolled in a wellness program and two thirds (66%) say their program offers incentives for using digital health tools. But when asked: "what is the biggest motivator to use these technology tools?" "Knowledge of my numbers" was the number one answer (42%). Only 10% of consumers say incentives are their biggest motivator to use digital health.



59% of digital health users have a chronic condition

But

Only **7%** use a disease management device/app

*Total percentages may exceed 100% in total because respondents were able to choose multiple responses.

Motivation to Use Digital Health

Biggest Motivator To Use Digital Health Tools	Percent*
Knowledge—I know my numbers	42%
Improving my health—It helps me manage my condition/reach my health goals	26%
Accountability—I know someone is tracking the results	19%
Incentive—I know I can earn a reward for using it	10%
Nothing—I am not really motivated to use it	3%
No, I do not have a chronic condition	41%

However, when asked if incentives motivated users to use their digital health tools more frequently, 91% said yes.

While digital health tools have exploded in growth—they have done so more in the lifestyle management category than in clinical/disease management. For these tools to be more effective, they must be tailored more deeply to individual needs--including chronic condition management.

Knowledge of my numbers is the biggest motivator to use digital health tools (**42%**)

*Total percentages may exceed 100% in total because respondents were able to choose multiple responses.

Conclusion

Digital health tools can help consumers better understand their health and give them information they need to manage it. They can also provide important data to healthcare providers to monitor their patients, improving communication and facilitating health action when necessary. These tools are still in the early phases of adoption, used primarily for lifestyle and fitness management rather than for controlling chronic disease. As health devices and applications mature, and consumers become more educated about their options, digital health can have greater impact on individual health improvement. This is an opportunity for plan sponsors to not only to guide members in the effective use of digital health, but also to help promote better data access and sharing between patients and providers. Digital health tools are an important component of a larger Personal Clinical Engagement strategy that can measurably improve individual and population health.

About healthmine™

HealthMine is a leading healthcare technology company with the mission to empower everyone to own their health. HealthMine has created an unparalleled Personal Clinical Engagement technology platform that makes it easy for members to manage their health because they know: 1) where they stand, 2) what they need to do, and 3) what's in it for them. The platform works by automatically intaking each member's clinical and behavioral health data, and analyzing it through a rigorous, clinical rules engine. HealthMine identifies healthy, at-risk, and chronically sick individuals in a population, uncovering health risks that often go unnoticed. Applying deep understanding of a member's health, lifestyle and behavioral patterns, HealthMine creates a dynamic, personalized health action plan and tracks outcomes. Serving more than one million members, HealthMine has saved employers and payers more than $100 million in healthcare costs. The company was founded in 2008 and is based in Dallas, Texas with offices in San Mateo, California, and Eatontown, New Jersey.

For more information on this report and additional HealthMine insight, contact us at:

469 730 5320

info@healthmine.com

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