

U.S. consumer attitudes towards specialized remote health monitoring devices

A follow-up survey on the interest in remote monitoring devices and how they could improve the management of chronic illnesses.

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mSafety

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Executive summary

Background

Chronic illness continues to be one of the most pressing issues for global healthcare systems, posing an immense cost to patients and care providers alike. In the United States, the direct and indirect costs of chronic illnesses could be as much as an astonishing \$3.7 trillion each year¹. Chronic illness is also often debilitating to patients themselves. Continually managing a condition requires attention and commitment, day in and day out.

In 2020, the Health Solution Division at Sony Network Communications Europe surveyed the attitudes towards remote health monitoring devices and found considerable interest in its potential to support people managing chronic conditions. To read the 2020 study, <u>click here</u>.

The healthcare industry has changed significantly since 2020. In February 2022, a new survey was conducted to build upon the previous one and to understand the impact of the COVID-19 pandemic. The study surveyed people with chronic conditions in the United States about specialized remote monitoring devices and remote care.

The survey was conducted on behalf of the Health Solution Division at Sony Network Communications Europe and carried out by independent market research firm PureSpectrum in February 2022, analyzing data from a survey of 2,030 participants with chronic conditions living in the U.S.

Key findings

- » 40% included medication adherence in their list of biggest challenges. 30% included affordability.
- » 65% worry about missing or misreporting a vital sign or symptom. 73% of that group feel the pandemic increased this worry.
- » 37% of participants experienced a health emergency from not properly managing their condition
- » 26% have been prescribed a remote monitoring device by their doctor, up from 20% in 2020.
- » Participants feel remote health monitoring would be safer (67%), more helpful (65%) and offer higher quality care (62%).
- » About 73% of participants would physically visit their doctor less often if they could.

Key takeaways

The 2022 survey results indicate that interest remains high in the potentials of remote health monitoring devices for chronic condition management. As compared to the 2020 survey however, the interest now seems to be supported by more hands-on experience with remote care. It is also accompanied by a stronger feeling of urgency to implement it.

As we begin a return to normal, many are realizing that the measures taken during the pandemic may have been the first steps towards new methods of care. Remote health monitoring offers the possibility to reduce patient burdens and costs of care, by simplifying the tracking of biomarkers and streamlining data sharing between patients and clinician. For any business interested in entering this growing market, now is the time.

Read the full conclusion on page 11.

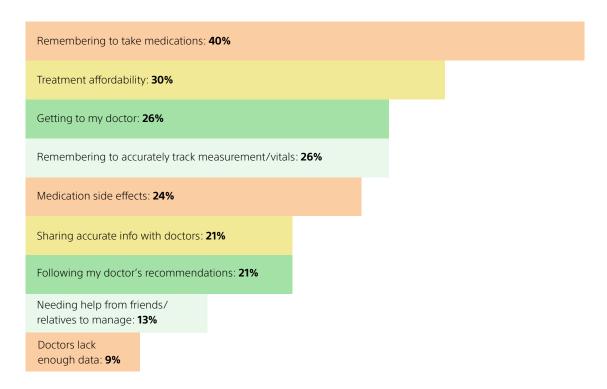
¹ MILKEN INSTITUTE https://milkeninstitute.org/sites/default/files/reports-pdf/ChronicDiseases-HighRes-FINAL.pdf

Survey results

Challenges of managing a chronic condition

Medication adherence outranks medication affordability as hardest challenge of managing a chronic condition in the United States.

Question: What are the hardest parts of managing your chronic condition?



Trends & insights

Managing a chronic condition has many challenges. The survey discovered that affordability, even in the United States, was not the biggest challenge experienced by participants. The top challenge by a 10% lead was the day-to-day task of remembering to take medications. Similarly, other routine tasks also scored high, like getting to the doctor, remembering to accurately track health measurements and sharing accurate information with doctors.

Stress and well-being

Managing a chronic condition is increasingly stressful and has a sizable impact on well-being.

- **65%** of survey participants find it stressful to continually track and share their health information and measurements.
- **>> 65%** say they worry about missing a vital sign or symptom that could be indicating a serious health issue. Of that group, **73%** said that COVID-19 has increased that worry.
- » Additionally, 68% of people surveyed note that managing their condition has created a reasonable negative impact on their well-being, with nearly half of that group (31% overall) noting the negative impact as "significant" or "severe."

Trends & insights

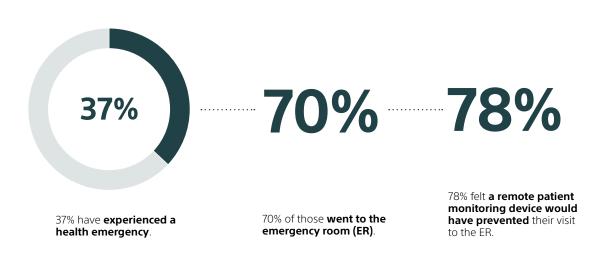
Challenges with mental health are a common problem among people managing chronic conditions. The survey confirmed this to be true, as well as suggested a negative trend in mental health during the COVID-19 pandemic. In 2020, three in ten (29%) people surveyed experienced stresses regarding tracking their chronic condition, compared to 65% today. A 124% increase in the number of stressed patients shows the toll taken by the pandemic. Remote monitoring offers an opportunity to support patients and reduce the burden of chronic conditions.



Health emergencies

About a third of participants have had a health emergency from not properly tracking their measurements or medication.

- » More than one-third (37%) of participants have experienced a health emergency from not properly managing their condition (medication adherence, missing a sign, misreporting a measurement, etc.).
- » A whopping **70%** of those who had a health emergency went to the emergency room. An overwhelming majority of those participants (**78%**) felt that a remote patient monitoring device which helped them keep track of their condition would have prevented their encounter with the emergency room.



Trends & insights

People with chronic conditions are at a higher risk of needing acute care - often through the emergency department - and this has seen a negative trend over the past two years. In 2020, only 28% had such a health emergency, compared to 37% today (32% increase).

Health emergencies are not only dangerous and traumatic to patients, but they are also extremely costly, to both the patient and the healthcare system more broadly. On top of that, many emergency wards today are facing limited capacities and declining reimbursements. Proactive care, for instance with a wearable device, can help reduce hospital admissions.

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Experiences with remote monitoring devices

The number of doctors providing their patients with remote health monitoring devices is modestly increasing.

- » Approximately **26%** of participants have been provided a remote health monitoring device by their doctor.
- » Of that 26% in this year's study, 60% reported that the recommendation was made during the pandemic, reinforcing that COVID-19 has been a catalyst for some adoption among providers.
- » Additionally, of that 26%, a majority (**55%**) indicated they were recommended a smart watch. The second most common recommended device was a sensor worn on the body (31%).
- » Nearly everyone who received a device from their doctor reported that it was easy to use (88%).



26%

26% have been provided a remote monitoring device by their doctor.



Trends & insights

The COVID-19 pandemic made the case for remote care, not only because it was preferable, but often because it was absolutely necessary. The survey reflects this reality. Vulnerable patients, those with chronic conditions, experienced more remote care through health monitoring devices in 2022. In 2020, only 20% of participants had been provided a remote health monitoring device, compared to 26% today.

Still, at 26%, the adoption of remote monitoring devices can hardly be considered widespread. If this survey is any indication however, this will likely change. More care providers and patients are recognizing the potentials of remote health monitoring to reduce patient burdens, provide more patient freedom and increase the level of personalized care.

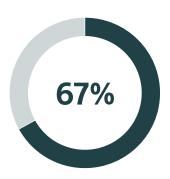
Opinions on remote health monitoring devices

People managing chronic conditions increasingly want remote health monitoring devices in order to feel safer and healthier.

- **85%** indicated that if their doctor provided them with a specialized remote patient monitoring device, designed only to help them manage their chronic condition, they would use it. This includes smart watches, smart wristbands and health wearables.
- » Two-thirds (67%) of participants would feel safer with a remote monitoring device from their doctor that was specifically designed for their condition. Approximately the same amount (65%) indicated it would be helpful for chronic condition management. Around 62% would rate the quality of their care higher if their doctor provided a device.

85%

85% would use a remote patient monitoring device.



67% would **feel safe**r with a remote health monotoring device



65% indicated it **would be helpful** for chronic condition management



62% would rate the quality of their care higher if provided with a device.

» Not only are people eager to use these devices, but they are increasingly demanding it. 60% would at least be somewhat willing to switch doctors if their doctor did not provide them with a device designed to help them manage their chronic condition. Approximately one out of every six (16%) actually indicated they would be very likely to switch doctors. 60%

60% would be willing to switch doctors.

Trends & insights

For care providers, the big question with respect to new technologies is often engagement. They ask: "Will my patients actually use something dedicated to manage their condition?" The survey found that an overwhelming number answer with an emphatic "Yes!" Already in 2020, 75% of survey participants were willing to use a specialized remote monitoring device. Today, this number is as much as 85% of participants.

The challenges of the COVID-19 pandemic required innovative methods of care. Not only have care providers seemed to adopt more remote health monitoring devices and telehealth methods, but patients themselves are more desirous of these methods. They see how wearable devices allow them to physically visit the doctor's office physically less often, while at the same time getting more direct and personalized care.

Opinions on sharing health data digitally

People managing chronic conditions want to share information digitally with a remote health monitoring device.

- » A majority of participants, **62%**, are still worried about the impacts of COVID-19 and would prefer not to physically visit a doctor's office.
- » Approximately **73%** of participants indicated they would physically visit their doctor's office less often if they could share vitals and other health information digitally with their doctor using a remote patient monitoring device.
- » In fact, when asked to estimate how many physical office visits that they might be able to avoid, more than three-quarters (77%) estimated at least half of their yearly visits might be unnecessary.



More than three-quarters (77%) would cut at least half of their yearly visits to their dector.

» Around **56%** of participants in this study said they had at least one telehealth visit over the course of the pandemic related to their chronic condition. Of that group, **75%** believe the quality and experience of their care would be better with a remote patient monitoring device.

Trends & insights

Patients with chronic conditions, especially those in underserved or less affluent communities, often struggle to regularly make it to their doctor's office. Doctors also have tight schedules, making in-person appointments hard to get. Complicating this normal reality is the COVID-19 pandemic, that made in-person care infinitely more involved and difficult. In fact, for certain patients, in-person was entirely out of the question.

What did patients think about remote care? The data speaks for itself. In 2020, only 48% of participants would visit their doctor's office less often if they could share health information digitally, compared to 73% today. This 52% increase is almost certainly a result of the difficulties of the pandemic, and the positive hands-on experiences of telehealth during the pandemic shows that remote health monitoring devices have the potential to reduce patient burdens and healthcare costs.

Opinions on consumer wearable devices

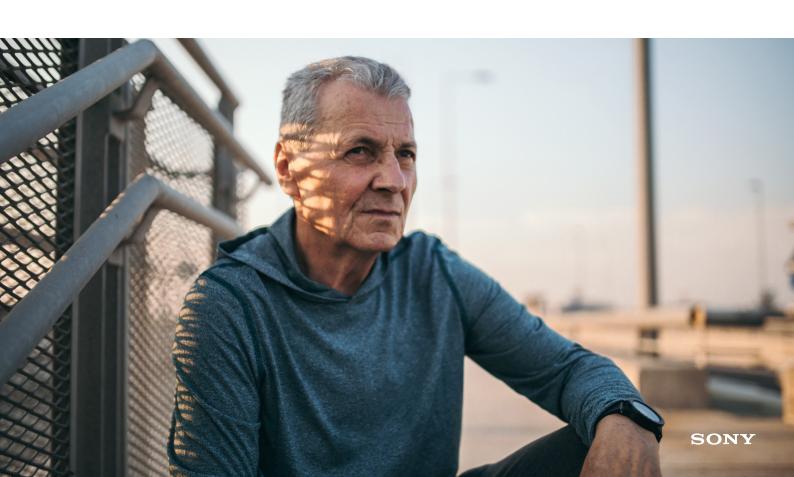
Many people managing chronic conditions do not trust consumer wearable devices not designed for their specific conditions.

- » Nearly half (45%) said they do not trust devices not specifically designed for healthcare.
- » Moreover, 40% admitted that they don't trust these consumer devices with their health data privacy.

Trends & insights

More patients seem to be willing and eager to use devices to keep track of their chronic condition. The question remains: which devices should they use? While many participants appear to trust consumer wearable devices in managing their chronic condition, nearly half (45%) of the participants do not. In 2020, this number was higher, at 72%. The increasing indifference of patients suggests that more and more patients are happy to place their trust in the device approved by their care provider.

The result is that care providers now have a larger responsibility to choose a suitable device. Not only do they have to abide by data privacy and patient confidentiality regulations, but they also have to consider all patients in a cost-effective manner. As is the case, many consumer devices do not offer the possibility of sole health data ownership to the service provider. Nor do they offer the same level of adaptability and flexibility that a purpose-built solution offers.



Conclusion

Summary

The survey has highlighted several key trends. Managing a chronic condition is challenging, stressful and puts people at higher risks of acute care. These aspects have gotten worse during the COVID-19 pandemic. 40% of participants feel the biggest challenge is remembering to take medications. 65% of participants find it stressful to track their condition, up from 29% in 2020. 37% of participants experienced health emergencies from not properly tracking their condition, up from 28% in 2020.

During the pandemic, patients and care providers took more precaution surrounding visits to the doctor, due to heightened concerns about their health. They explored new methods of care, including telehealth through remote health monitoring devices. From the surveys, there was an increase in the number of participants who were provided a remote health monitoring device, from 20% to 26%.

Remote care experiences were positive and confirmed the value of remote care outside of pandemic conditions. 85% of participants now feel willing to use a specialized remote monitoring device, as compared to 75% in 2020. Most telling perhaps is the clear majority of participants (73%) who answered that they would visit their doctor less often if they could share health data digitally, a large increase from 48% in 2020. As for the choice of device, nearly half (45%) still do not trust devices that are not specifically designed for healthcare.

Key takeaways

The potentials of remote health monitoring are clear. By simplifying and streamlining data sharing between patients and clinicians, remote health monitoring devices support direct and personalized care. Automatic reminders and real-time monitoring of vitals are just some of the things making managing a chronic condition simpler and more effective. These features also improve patient quality of life and alleviate many challenges facing care providers.

Health service providers currently have the opportunity to embrace remote care. Implementing remote monitoring can be done in several different ways, but there are important considerations. For one, in a time of increasing data security threats and data regulations, service providers need to consider data ownership and privacy in their choice of device. Another consideration is that of "make or buy" – develop the remote monitoring solution in-house or collaborate with partners?

While the survey suggests a bright future for remote monitoring, there is still plenty of room for improvement. The adoption of remote monitoring devices is not yet widespread. Remote care offers a significant area of opportunity for service providers and other businesses offering health solutions to patients with chronic diseases. Implementing a remote health monitoring solution is an innovative way to provide better, more specialized and proactive care to people managing chronic conditions.

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mSafety is a remote monitoring platform that combines network connectivity with intuitive product design. With mSafety as a foundation, our B2B customers can build a broad range of remote health & safety monitoring services in areas as diverse as elderly care, pharmaceutical trials and search & rescue.

The solution consists of a purpose-built wearable device with sensors to measure e.g., heart rate, activity levels and sleep, and a secure cloud backend that allows service providers to stay connected with end-users round the clock. mSafety paves the way for more proactive health services, while delivering valuable data to the companies that deploy it.

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