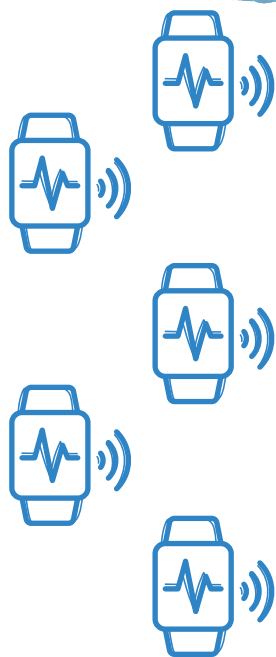




2021 WEARABLES TRENDS



This year has brought disruption to virtually every industry, and wearables are no exception. The 2020 wearables trends reflect changing demand, rapid innovation, and increased attention on overall health and wellness. COVID-19 has showcased the gaps that exist in remote healthcare capabilities, and many health tech companies are turning to wearables to assist in tracking cases, detecting early warning signs, and monitoring patients from a distance.

As the global pandemic has caused the general population to think more seriously about their overall health, major players in the wearables market such as FitBit, Apple, and Amazon are rolling out more advanced analytics and high-tech features that connect seamlessly across multiple devices. The gradual shift in the healthcare industry from service-based to value-based opens the door for wearables to play a key role in addressing the biggest issues our healthcare system will face in the coming years. As the demand for smarter and more secure wearables increases, leading companies will determine how to gain long-term user buy-in and utilize technology advancements to shape the next evolution of wearable devices.

TREND #1:

Adapting to COVID-19 challenges

The novel coronavirus has had a huge impact on the way healthcare is able to be delivered. [High risk populations](#) include the elderly and immunocompromised, which are precisely the populations that would be seeing their physicians regularly. This is driving the need for remote monitoring capabilities and alternatives to in-person visits, creating the opportunity for wearables to support the seamless integration of telemedicine into the patient's home. The ability of wearables to monitor patients' health statistics in real-time and integration with IoT technology allowing for accelerated insights to providers without having to see the patient in person.

There has also been promise in the use of wearables to identify and track COVID-19 symptoms. [Fitbit recently announced](#) that their wearable devices were able to detect approximately 50% of coronavirus cases one day before study participants reported symptoms. If the disease can be detected early enough, big gains will be made in limiting the spread and protecting public safety.

Long-term patient and provider buy-in to wearables and telemedicine will revolve around ease of use and an understanding of added value. Oftentimes, [physicians are inundated](#) with data that doesn't fit in with their workflow. This leads to a lack of guidance to patients about how and when to use a wearable, highlighting the importance of advanced analytics to assist both patient and provider in understanding their data.

In April, 43.5% of primary care visits were provided via telemedicine, versus 0.1% in February

SOURCE

Applications in clinical trials

Having a thorough understanding of the effects of a drug or medical device throughout the clinical trial process is of utmost importance to pharmaceutical and medical device companies.

Wearables create an avenue for generating and leveraging large data sets that are increasingly being used to provide better insights to treatment monitoring and efficacy. Wearables can cover a variety of different clinical trial applications, from the [early detection of adverse events](#) to [quality of life tracking](#). Expanding data collection beyond the scope of a traditional clinical touchpoint combined with advanced analytics and artificial intelligence can showcase subtle effects that may not have been noticed otherwise.

Additionally, wearables can make the clinical trial experience a more [positive one](#) for the participants by lowering the frequency and duration of visits to the clinic. Overall, the use of wearables in clinical trials will improve trial effectiveness and enhance developer insights.

Increasing movement of traditional fitness trackers into the FDA-approved monitoring space is making wearable use in clinical trials easier and more accessible for patients. Smarter and more efficient drug development is where the future is headed, and leading pharmaceutical and medical device companies will leverage the breadth of data that wearables provide to gain real-time patient insights during their clinical trials.

70% of clinical trials will incorporate wearable sensors by 2025

SOURCE



TREND #3:

Chronic condition management

In 2019, chronic conditions [cost the US](#) healthcare system \$3.5 trillion. This high price tag is causing a push for better ways to prevent or manage these diseases. The last few years have shown advances in miniaturizing key patient data such as ECG, blood oxygen content, blood pressure, and heart rate, allowing for wearables that utilize these technologies to play a role in chronic condition management.

Traditionally, wearables have been readily adopted by young, low-risk populations even though they have a huge market in the elderly and high-risk populations. Only [21% of wearables users](#) said they have a chronic illness, but [90% of surveyed patients](#) believe they could better manage their chronic conditions by using a wearable. This gap shows the need for new, innovative marketing strategies combined with easy to use devices and interfaces to tap into this relatively untouched market segment.

Big market players that have traditionally focused on fitness tracking are now entering this space. [Fitbit](#) and [Samsung](#) recently announced their own FDA-approved ECG sensor and app, joining Apple in creating ways to track heart rhythm irregularities at home. Additionally, the Apple Watch Series 6 includes a [blood oxygen monitor](#) which has potential for both chronic condition management and coronavirus applications. The wearables market is expected to continue to see further integration of fitness trackers and FDA-regulated sensors to provide more insights to consumers as concern surrounding personal health and wellness increases.

**60% of the
American
population
has a chronic
condition**

SOURCE

TREND #4:

Data privacy and security concerns

With 93% of healthcare organizations [experiencing a data breach](#) over the last 3 years, data privacy and security is at the forefront of consumers' minds. Wearables collect a lot of sensitive data, none of which is considered private health data unless it is shared with a healthcare provider. In July of 2020, Garmin [announced a cyberattack](#) that compromised several of their key systems, including the Garmin Connect app, which is the primary user interface for the analysis of data from their wearable technologies. With a rise in high-profile data breaches, many key players are announcing added data security measures to address consumer apprehension. This is reflected in Amazon's decision to [encrypt health data](#) collected from the new Halo Fitness Tracker both in transit and in the cloud. Users are also able to download or delete their data at any time.

Data is also very valuable to health insurance companies, and their use of data from wearables is a point of [major contention](#). Access to member health data would allow for insurance companies to calculate individual risk and adjust premiums based on that risk. Increased consumer attentiveness to the exact ways their data is being shared and stored is showcasing the ever-increasing importance of having strong data management and security practices, particularly when it comes to health data.



41% of patients cited data privacy and security as their number one concern when considering wearable options

SOURCE

TREND #5:

Diversified applications

The increasing presence of wearables is being seen in different market segments such as mental health and women's health. Over the course of history, these have been two traditionally undervalued and under researched areas, and now developers are looking to expand the ways in which we diagnose, treat, and meet the needs of those that fall into these segments.



Femtech has seen huge growth in the last five years, largely due to increased awareness surrounding the [lack of research](#) about women's health. Innovative devices that [track menstrual cycles](#), provide real-time [fetal monitoring](#), and monitor contractions are just some of the ways in which wearables have made their way into the Femtech space. It is currently primarily comprised of [start-ups](#) that are paving the way in addressing the most pressing needs of women around the globe.

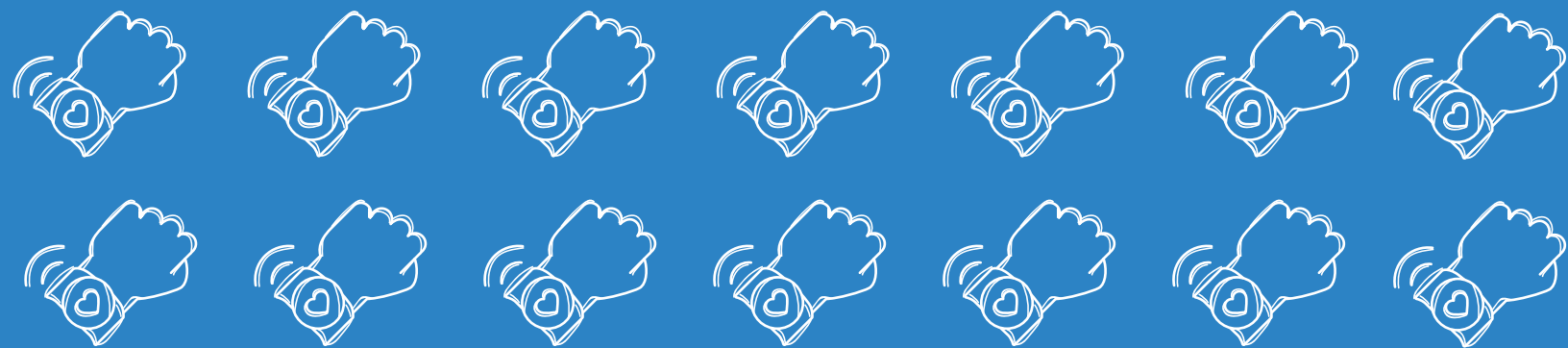
There is still a large stigma that exists when discussing mental health, even with alarming statistics such as suicide being the [second leading cause](#) of death in 10 to 34-year-olds. Wearables present the opportunity to reach large demographics and find new ways to quantitatively measure key mental health markers.

Wearables that [characterize mental states](#), [reduce stress](#) by calming the nervous system through vibrations, and [track medication consumption](#) and activity level are shedding light on the large gaps in diagnostic and treatment management options for those with mental illnesses. When medical device manufacturers think about the needs of their audience, they can develop profitable and innovative solutions to answer some of the most common health issues these underserved populations face.

Experts anticipate the femtech market will reach \$50 billion by 2025

SOURCE

\$50 BILLION



TREND #6:

Evolving regulatory landscape

The Food and Drug Administration (FDA) has issued basic guidance for health and wellness wearables but is not actively regulating them. A wearable only becomes considered a medical device when it is “intended for use in the [diagnosis of disease](#) or other conditions, or in the cure, mitigation, treatment, or prevention of disease.” The most popular wearables on the market have and will continue to toe the line between regulated medical device and consumer product, with certain FDA-approved sensors integrated with other general health and wellness features. FDA approval can be important to meet consumer demand for a reliable device as well as allow for applications in clinical trials, but the regulator process is long and expensive. Leading companies will balance navigating regulatory hurdles with maintaining consumer confidence.



COVID-19 presents a unique opportunity for companies looking to create technological innovations to combat coronavirus with lower regulatory hurdles. The FDA has issued an Emergency Use Authorization (EUA) for certain remote or wearable patient monitoring devices to “help [increase the availability](#) of monitoring and treatment of patients and to help address reduction of healthcare provider exposure to SARS-CoV-2.” G Medical Innovations’ remote patient monitoring patch, which allows for physicians to monitor a specific part of their patients’ electrocardiogram from a distance, was recently approved. Navigating a changing regulatory landscape as new innovations prompt changes will be key for success in the coming years.

The average cost to bring a medical device to market through the 510(k) pathway is \$31 million

SOURCE



Going Forward

The fast-paced innovation occurring in the wearables space within the last few years and as a direct result of changing demands due to coronavirus presents both unique challenges and opportunities to market players. Businesses must employ better analytic and data management practices, stay ahead of a shifting quality and regulatory landscape, and diversify their marketing strategies in order to realize the benefits for growth and transformation afforded by these market shifts.

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