

# The Reason Mobile App Security Matters for mHealth Post-Pandemic

Mobile app cyber attacks target sensitive data and IoT medical devices as millions of Americans depend on mHealth throughout the pandemic.



As the pandemic marks its third year, the mobile health and wellness market remains strong and vibrant. People use mobile health apps for virtual doctor visits, remote patient monitoring, filling prescriptions, working out and meditating. Even as some patients resumed in-office visits, telehealth visits have grown 38 times higher than pre-pandemic levels, according to McKinsey & Company.<sup>1</sup> A recent survey found that existing telehealth users are satisfied and 73% plan to use telemedicine at the same rate or more in the future.<sup>2</sup>

Healthcare providers are expanding their virtual care offerings to improve access and healthcare insurers such as Cigna and UnitedHealth Group have launched virtual healthcare plans.<sup>3</sup> Other major factors driving mHealth growth include the rising number of smartphone and tablet users and innovative mobile apps.

mHealth apps encompass everything from telemedicine such as Doximity and Medici; personal medical records such as MyChart and My Medical; pharmacies such as GoodRx and Rite Aid; health and wellness such as Calm and Headspace; fitness such as Peloton and SWEAT; and Internet of Things (IoT) apps such as Fitbit and DreamMapper. In the age of COVID, people also use mHealth apps to contract trace, schedule vaccinations and provide digital proof of vaccinations.



**9/10 users**  
describe telemedicine  
experiences as friendly,  
easy and affordable.<sup>4</sup>

## Mobile Apps Improve Healthcare Access

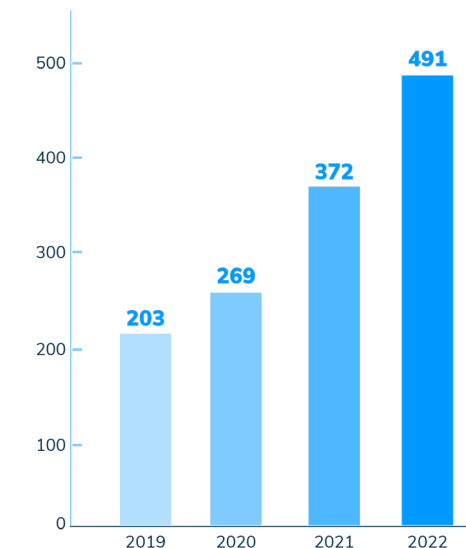
Telehealth app downloads jumped 33% year over year in Q1 2021, according to SensorTower.<sup>5</sup> After tremendous growth in 2020, health and fitness downloads dropped 24% during the first half of 2021. However, usage increased with app sessions growing 31%, indicating that as gyms reopened, many people preferred to continue to use apps to work out at home.<sup>6</sup>

After investing in mHealth for years, the Mayo Clinic now has more than 1 million users of its mobile app.<sup>7</sup> Elsewhere, Mount Sinai Health System recently launched a mobile app for patients to access health records, schedule appointments, pay bills and conduct video visits with doctors.<sup>8</sup> It also built a new mobile app to expedite and enhance care for patients with heart attacks. STEMIcathAID, enables clinicians to communicate, coordinate and track care and share test results.<sup>9</sup>

## Mental Health Mobile App Adoption

Emotional and mental well-being apps provide new avenues for support and encourage mindfulness. Sensor Tower predicts strong growth through 2022.<sup>10</sup>

GLOBAL SPENDING ON EMOTIONAL WELL-BEING APPS IN MILLIONS



## Breaches Raise Concerns

As demand for mHealth continues to climb, the expanding threat landscape puts more sensitive patient data at risk. IoT apps connected to medical devices to measure heart rate, blood pressure and levels of sugar collect a plethora of personal medical information.<sup>11</sup> Hacking them could even lead to a deadly scenario if attackers were to take control of a pacemaker or insulin pump.<sup>12</sup>

A January 2022 benchmark risk report from NowSecure underscored the danger. Of 595 popular healthcare mobile apps, 69% had privacy risks, 69% used dangerous permissions and 33% used weak cryptography that could expose sensitive data.<sup>13</sup>

Several mHealth apps recently suffered from security vulnerabilities and privacy issues that tarnished their reputations:

- The **Flo Health** period and fertility tracking app maker faces a class-action lawsuit for sharing users' sensitive personal information with third parties without their knowledge.<sup>14</sup>
- **Docket** fixed a bug in its vaccine passport app that exposed COVID-19 vaccination records of some residents in New Jersey and Utah.<sup>15</sup>
- NowSecure discovered security vulnerabilities in **Peloton** mobile apps and APIs that could have exposed its fitness equipment users to account takeovers and phishing attacks and reveal their personal information.<sup>16</sup>

Such security incidents demonstrate the need for automated mobile application security testing to uncover security vulnerabilities, privacy flaws and maintain compliance with strict healthcare regulations such as the Health Insurance Portability and Accountability Act (HIPAA). In fact, the Federal Trade Commission requires health apps and connected

**Compromising an IoT medical app could potentially lead to a life-or-death scenario.**

device companies to notify consumers of data breaches or face penalties of up to \$43,792 per violation per day.<sup>17</sup>

Automated mobile application security testing tools empower AppDev, AppSec and DevSecOps teams to test apps on demand or perform integrated security testing directly in the development pipeline. NowSecure Platform analyzes risks of Android and iOS mobile apps so organizations can quickly address them and ultimately deliver high-quality secure mobile apps faster.



The average risk score of popular healthcare mobile apps is **69/100**.<sup>18</sup>

## About NowSecure

NowSecure offers a comprehensive suite of automated mobile app security and privacy testing solutions, penetration testing and training services to reduce risk. Trusted by many of the world's most demanding organizations, NowSecure protects millions of app users across banking, insurance, high tech, retail, healthcare and government. The company is SOC certified and was named a mobile security testing leader by IDC and a DevSecOps transformational leader by Gartner.

Visit [www.nowsecure.com](http://www.nowsecure.com) to discover strategies for strengthening the security of mHealth apps to safeguard personal information and maintain compliance.

 NowSecure™  
**MOBILE APP TRENDS**

### SOURCES

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