



Health Tech's Next Responsibility: Empowering Patients With Greater Ability to Access and Manage Their Health Data

Understanding the imperative shift healthcare technology companies must make to prioritize patient-centered digital solutions that streamline health data management.



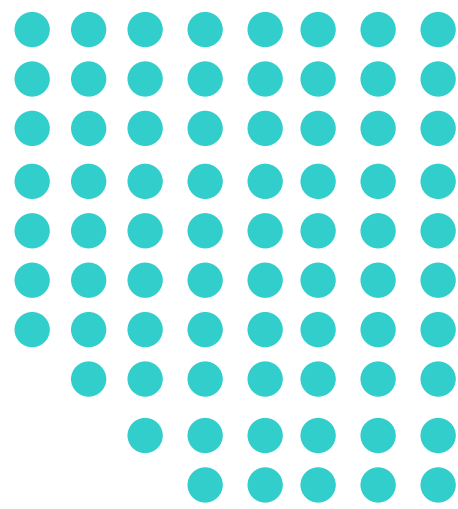


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Introduction



Digital transformation in the healthcare industry continues to help medical professionals to provide faster, more accurate, and more personalized care. The role of technology is so crucial to improving patient experiences that 80% of health systems plan to [invest more money into digital health](#) in the next few years, according to a HIMSS Future of Healthcare Report.

However, most digital solutions in the medical field focus on improving systems within organizations rather than encouraging patients to take charge of their health data. Though people can access their medical records through various online portals, few solutions centralize the experience and bring all the information to the patient.

This white paper will explain why technology companies must develop more solutions to enable patients to manage their medical data and how this shift will benefit providers.

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The Push for Providers to Exchange Healthcare Data Electronically



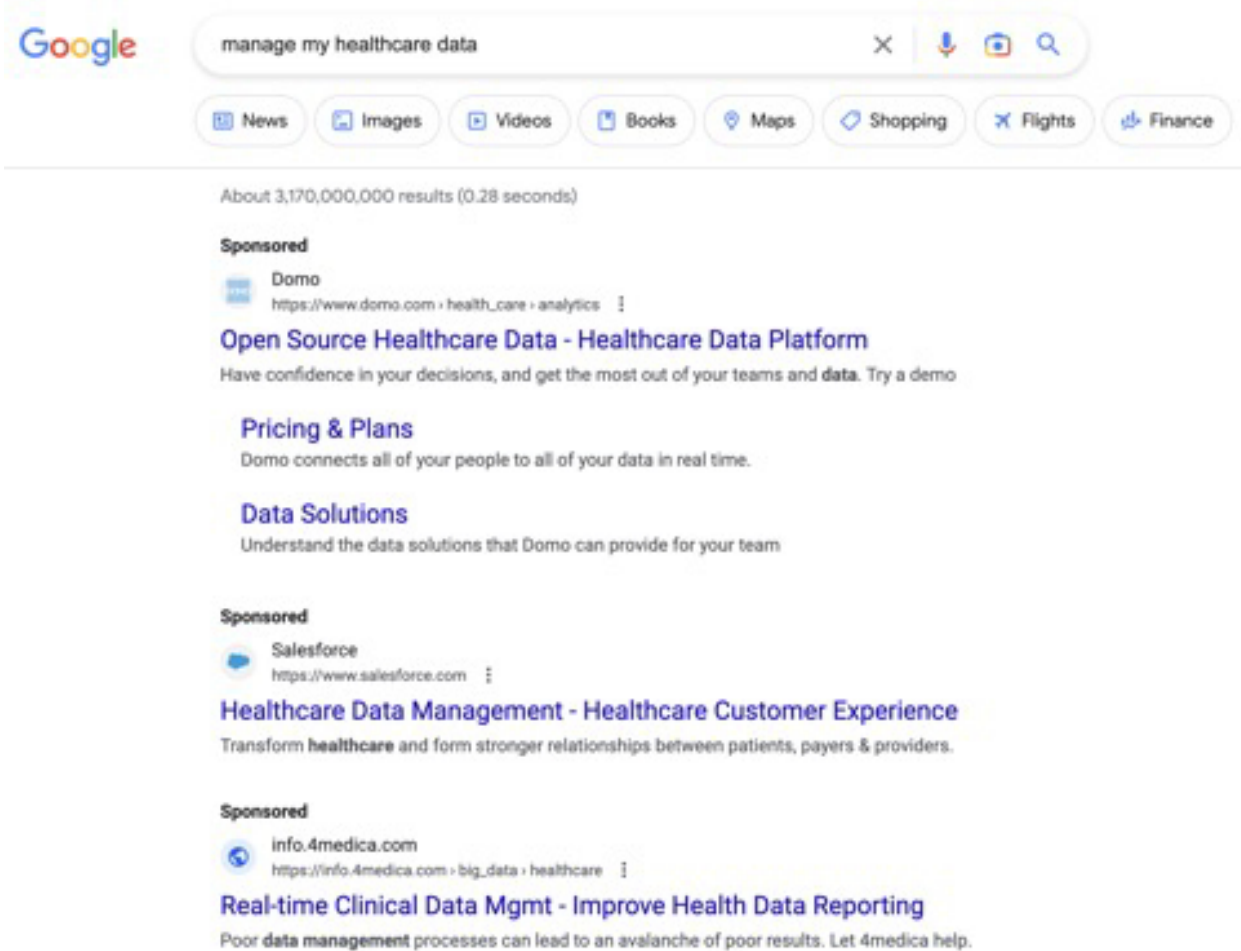
In recent years, obtaining [healthcare interoperability](#) has been equated to providing solutions for organizations to exchange electronic health information (EHI) more efficiently. Technologies such as Fast Healthcare Interoperability Resources (FHIR) have been developed to make it easier to send medical information from one system to another. In fact, many major healthcare providers have adopted FHIR because it plays a key role in achieving interoperability by 2024.

Yet, providing solutions for patients to manage their healthcare data more comprehensively hasn't been a priority for technology companies. For many people, [medical records remain scattered among several providers](#), which forces patients to track down their information through numerous apps and office visits. There aren't many digital options to streamline a person's health data.

For example, on March 30, 2023, we searched for "manage my healthcare data" on Google. We broke down the top 15 results into the following categories:

- Seven results were paid ads for data platforms for healthcare organizations.
- Four results were informational articles about accessing health records.
- **Three results were links to apps for patients to collect and manage health data.**
- One result was a patient portal connected to a specific organization.

Only 20% of the top 15 results matched a patient's intent to aggregate their medical data from multiple providers. But even one of those solutions, Apple's Health app, targeted its messaging toward organizations instead of patients.



Source: Google

Companies have focused more on interoperability technology that benefits healthcare providers and not necessarily patients. However, developing digital solutions that let people receive, store, and send medical data within one platform should be equally important.

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Digital Solutions
Created
for Interoperability
Bypass Key
Patient Needs



According to the Centers for Disease Control and Prevention (CDC), "[the goal of data interoperability](#) is to improve electronic reporting to public health and ultimately improve patient care." This initiative began with the [HITECH Act of 2009](#), which incentivized healthcare providers to switch from paper records to electronic health records (EHRs). The transition was supposed to make it simpler for organizations to exchange EHI.

However, because healthcare providers could use any vendor, information became siloed within different EHRs and remained challenging to share electronically. As a result, the [ONC's Cures Act Final Rule](#) in 2020 mandated healthcare providers must have EHI export capability by December 31, 2023. The medical industry has been charged with adopting standardized APIs to allow patients to access their EHI securely and easily using smartphone applications.

Despite the Final Rule mandate, an issue lingers. Since a person's EHI is often spread across several healthcare providers, they must use a variety of apps, logins, and passwords to retrieve it. Instead of empowering a person with their healthcare data, technology has obligated the patient to hunt for their information from numerous sources.

For example, poorly connected data solutions prompted a patient with Type 1 diabetes to compile a book of his medical history for new physicians. He'd bring the documents to each visit to inform the doctor about his medications, lab results, and procedures.

"He shouldered the responsibility and the burden of integrating all his health data from various providers and his own daily glucose monitoring to get the best care. The healthcare technology ecosystem did not support his communication needs with physicians." — [How to empower patients and providers with more data, technology](#)

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Developing More Patient-Centric Digital Solutions Returns Control



To liberate people from searching for their EHI among provider apps, companies must develop technology that lets patients curate data from multiple sources into one experience. Patient-centric digital solutions that use artificial intelligence (AI) and blockchain technology to create a personalized health record (PHR) enable people to control their EHI.

Personalized Health Records (PHRs)

With PHRs, patients use one platform to organize all their medical data from various healthcare providers. Physicians can send forms directly to a patient's PHR instead of making the patient log into different apps. After the patient fills out and returns a form, the information is stored in their PHR. AI then uses machine learning to auto-populate the fields of future documents.

A [PHR](#) can store much more than basic data such as a patient's name, address, and phone number. The digital solution may contain any information that helps manage a person's health, including the following data:

- Doctors' names and phone numbers
- Medications (including dosages)
- Allergies (including drugs)
- List and dates of illnesses, surgeries, and implants
- Chronic health conditions
- Vaccination record
- Family history
- Advance directives or living will

With all this data in one place, a patient can share their EHI with any healthcare provider. [Blockchain technology](#) – which was used to secure health records for the entire Estonia population in 2016 – encrypts the data exchange to ensure privacy and compliance.

The Benefits of PHRs for Patients and Providers

PHRs enable patients to take a more active role in managing their health. With up-to-date EHI at their fingertips, a patient gets a clearer understanding of their medical status. Instead of just telling the patient what to do, the physician becomes a partner, and the patient is in charge of their healthcare journey.

“By adopting collaborative tools that empower providers as health care partners, we squarely put the emphasis back where it should be: on patient health and positive patient health care journeys.” — [3 Ways Technology Empowers PCPs and Patients to Transform the Health Care Experience and Improve Outcomes](#)

PHRs can also benefit patients in medical emergencies. First responders who can access a person’s PHR on their smartphone can immediately learn critical information — such as medications and allergies — when responding to an incident.

For providers, PHRs permit access to patient information beyond their own EHRs. This data can help doctors fill the gaps in a person’s history and create a complete picture of their health. When a patient’s EHI is centralized in one place, physicians can make treatment decisions faster because they don’t have to contact other providers to uncover missing information.

PHRs that can integrate data from wearable devices are even more valuable to providers. When physicians are able to combine daily activity statistics with test results and other medical data, they become better informed to treat and even prevent health conditions.

“Practitioners can use technology to do what they can do best — provide care and prevention — helping patients feel better, while in other cases, helping prevent problems from arising before they even happen.” — [Health in your hands: how data and AI are empowering patients](#)

5 Conclusion



Technology companies can play a pivotal role in transforming healthcare by developing more ways for patients to regulate their medical information.

Patient-centric digital solutions enable people to become active participants in their healthcare management instead of remaining passive recipients.

“Rather than relying on a single provider to manage healthcare records and recommend treatment plans, people can take control of their data and proactively seek out the care they need.” – [How Health Tech is Empowering The Next Generation](#)

To learn how zPaper is empowering patients with digital solutions that streamline their data, [speak with our sales team](#) today.

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References



1. CDC. (n.d.). Goals and Benefits of Data Interoperability. Retrieved from <https://www.cdc.gov/datainteroperability/goals-and-benefit.html>
2. HIMSS. (2019). Future of Healthcare Report: Exploring Healthcare Stakeholders' Expectations for the Next Chapter. Retrieved from <https://www.himss.org/resources/future-healthcare-report-exploring-healthcare-stakeholders-expectations-next-chapter>
3. HIMSS. (n.d.). Interoperability in Healthcare. Retrieved from <https://www.himss.org/resources/interoperability-healthcare>
4. HIMSS. (n.d.). Empowering Patients to Access Health Records through Distributed Applications. Retrieved from <https://www.himss.org/resources/empowering-patients-access-health-records-through-distributed-applications>
5. HIPAA Journal. (n.d.). What is the HITECH Act? Retrieved from <https://www.hipaajournal.com/what-is-the-hitech-act/>
6. Mayo Clinic. (2019). Personal Health Record. Retrieved from <https://www.mayoclinic.org/healthy-lifestyle/consumer-health/in-depth/personal-health-record/art-20047273>
7. Microsoft. (2019). Health in Your Hands: How Data and AI are Empowering Patients. Retrieved from <https://news.microsoft.com/europe/features/health-in-your-hands-how-data-and-ai-are-empowering-patients/>
8. Nortal. (n.d.). Blockchain Healthcare: Estonia. Retrieved from <https://nortal.com/blog/blockchain-healthcare-estonia/>
9. ONC. (n.d.). ONC's Cures Act Final Rule. Retrieved from <https://www.healthit.gov/topic/oncs-cures-act-final-rule>
10. Perna, G. (2019). Contributor: 3 Ways Technology Empowers PCPs and Patients to Transform the Health Care Experience and Improve Outcomes. The American Journal of Managed Care. Retrieved from <https://www.ajmc.com/view/contributor-3-ways-technology-empowers-pcps-and-patients-to-transform-the-health-care-experience-and-improve-outcomes>
11. Rajamani, S. (2019). How to Empower Patients and Providers with More Data, Technology. Health Data Management. Retrieved from <https://www.healthdatamanagement.com/articles/how-to-empower-patients-and-providers-with-more-data-technology>
12. Voices of Youth. (2020). How Health Tech is Empowering the Next Generation. Retrieved from <https://www.voicesofyouth.org/blog/how-health-tech-empowering-next-generation>
13. Wenger, B. (2019). Empowering Patients to Take Ownership of Their Health Data. IMD. Retrieved from <https://www.imd.org/news/updates/empowering-patients-to-take-ownership-of-their-health-data/>