

# The Challenges of Being a Digital Health Innovator

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For years, digital health has been introducing incremental change to healthcare, an industry that is known – perhaps inaccurately – for being resistant to change. But with the COVID-19 pandemic, digital health powered transformation rapidly accelerated. Investors took notice. Funding for digital health startups skyrocketed in 2021. By late 2022, however, that funding had begun to dwindle. Many fledgling startups have since encountered a hard reality: Growth in healthcare is costly and gradual.

Many startups new to healthcare face upfront challenges gaining entry and proving viability. To be adopted at scale, new products depend on validation and partnership with more established organizations. And whereas the startup mindset typically rewards an ethic of working fast and breaking things, healthcare is different, instead rewarding caution and efficiency.

It's not easy being a startup in healthcare, but it's not impossible, either. Several InterSystems partners have embraced these challenges with bold creativity and open eyes. They have proven that innovation and healthcare are not only compatible but instrumental to delivering better outcomes both for their businesses and for patient care.

## The Challenge of Validation

For a new product to be credible and attractive within the healthcare market, validation is critical. Few health insurers or employers will pay for a product that has not been proven both valid and efficacious. Yet at the same time, few providers or consumers can afford to try an experimental product for which there is no reimbursement.

And the path to validation is typically long and costly: Development teams need to run pilot studies to prove the concept. Clinical or business studies follow. There may need to be publication in peer-reviewed journals. These steps, in addition to being expensive, demand time – often years. “And the whole time,” says Dr. Thomas Sawyer, COO of British startup Cognetivity Neurosciences, “you haven’t made a dollar. It takes an awful lot of work to enter the market.” It takes an awful lot of investor buy-in, as well. Yet validation is too important to rush. Companies whose leadership and backers understand the related commitments of time and patient outcomes are more likely to succeed.

## The Challenge of Collaboration

When startup and established healthcare organizations collaborate, they face the challenge of building common ground. Aligning at the start is key, especially when it comes to objectives and data sharing.

Eran Orr, founder and CEO of XRHealth, a startup, offers a vivid illustration of why this is a challenge: “As a big organization, you need to understand that when you’re working with a startup, we’re a race car and you’re a truck. And you have to adjust speeds between the organizations. Otherwise, you will run out of gas.” This mismatch, Orr maintains, is “the number-one reason for failure or success when partnering with young startups.”



For James D. Murray, VP of Clinical Informatics and Interoperability at CVS Health, the core of any compelling collaboration is a clear problem statement. “Understanding the problem will lead us to the innovation if you solve it step by step. Showcasing that piece is critical in any partnership we look for.” Similarly, collaboration “should start with agreement on what is a successful outcome,” Orr says. Define success, agree on a measurement strategy, and then chart a path forward. Alignment on objectives and strategy will go a long way to join two organizations that are, by nature, different.

## The Challenge of Data Sharing

Sharing relevant, valuable data, and doing so in a standardized manner, is critically important for digital health startups. It’s important not just for one-off implementations but for establishing your organization within an industry in which data is indispensable.

Embracing healthcare standard data models is critical for achieving success and growth. By using both standardized data models and interoperability standards, startups can more easily integrate their products and services with existing healthcare systems and infrastructure, making it easier to enter the market and gain traction. This can also help avoid costly and time-consuming customization and integration efforts. Furthermore, adhering to healthcare standards can help startups build trust with customers and partners, as well as ensure compliance with regulatory requirements.

Companies that expect to share consumer data with other healthcare organizations should expect to be held to rigorous standards. Failing to comply with that comes with risks. One is ending up with patient data that can’t be used. Another is ending up with data that must be cleaned up before it serves a purpose. “Cleaning data isn’t the easiest thing to do,” warns Dr. Zafar Chaudry, Senior Vice President and Chief Digital and Information Officer at Seattle Children’s Hospital. “Standardizing data and getting it interchanged between organizations is definitely the way to go—but unfortunately no software vendor has the same fields.”

Instead of sidelining data-sharing as a discussion topic, startups should have candid, intentional conversations with potential partners at the start. Consider what proactive measures you might take to meet large organizations where they are. Companies that apply FAIR (Findability, Accessibility, Interoperability, and Reusability) data principles and offer a robust data infrastructure capability will stand out to providers. So will companies that can simplify the complexity of healthcare data and offer meaningful supports for clinical decision making.

## The Challenge of Privacy and Security

Many startups tend to overlook the importance of data privacy and security. As a result, they underestimate how imperative these factors are to the healthcare industry and fail to meet basic compliance requirements.

“What we’ve seen with Silicon Valley is they’ve been able to monetize their data. What’s happening in healthcare is we’re trying to follow suit,” observes David Dobbs, VP of Health Data Integration & Analytics with the Hawaii Medical Service Association. Privacy rules and regulations – HIPAA, for example – govern health insurers’ and covered entities’ data-sharing so that consumer information is well protected. However, third-party app developers aren’t covered entities under HIPAA, meaning the regulations often do not extend to them. “I think we have to be careful,” Dobbs warns, highlighting the importance of privacy for healthcare organizations.

There are reportedly over 350,000 mobile health apps available today. This is just one element of the proliferation in patient health data, and raises questions of data ownership. Traditional providers and health insurers hold a commitment to using patient data ethically. Product innovators should hold the same commitment top-of-mind as they create both products and market strategy.

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Consider this example: Dr. Suhina Singh is the CEO and co-founder of Jonda Health, a mobile health app. A point of differentiation for Jonda is their end-to-end encryption and zero-knowledge encryption, so that data is fully legible only for the consumer user. It's a product design choice that matches their mission to, in Dr. Singh's words, "give power to the patient" and ensure patients own their own data.

## The Challenge of Health Equity

Today's digital health transformation raises important issues with respect to health equity. Not all patients can access digital health tools, nor do all possess the skills to take advantage of them. The reality is that social disadvantages (such as speaking a less common language, lacking internet access, or lacking technological literacy) prevent some patients from benefiting from these tools. Healthcare has an obligation to confront these issues head on, as many of the most vulnerable populations are also those that could benefit most from digital health.

The aging population, for example, faces the long-term challenge of dementia. Existing methods for detecting brain health issues often come with a range of equity-related problems, including language dependence and educational bias. That's why Cognetivity Neurosciences has designed impairment-detection solutions that successfully capture cognitive impairment across different demographic cohorts.

Equity should be woven into the intent and design of all digital health solutions. Which is why collaborations like the Digital Medicine Society are working on toolkits to foster inclusive product development. The solutions that marry digital health with health equity will likely prove efficient financially and effective in managing population health issues clinically.

## Conclusion

In spite of healthcare's various challenges, the digital health arena continues to invite innovative solutions. With a shared sense of vision, collaboration, and investment in privacy and security, innovative organizations can overcome these challenges and find success. There are tremendous opportunities for organizations to partner in the delivery and administration of better, smarter health solutions.

### A Healthcare Data Platform That Takes Care of the Complexities

**InterSystems IRIS for Health™** offers a seamless, scalable solution to help organizations keep up with complex regulations and privacy rules. It gives you the fastest route to getting innovative healthcare apps up and running quickly and delivering sustainable value. Features include:

- Extensible HL7® FHIR® repository and comprehensive REST APIs
- Healthcare analytics framework, with your choice of embedded, standards based, and best-of-breed technologies for exploration, analysis, and prediction
- Support for major healthcare interoperability standards: HL7® V2, IHE, CCDA, DICOM, and more
- Comprehensive interoperability tools for sharing data between systems
- Intuitive data transformations for working with different requirements for incoming and outgoing data
- Advanced scalability solutions for handling massive user and data volumes

