

News and Perspectives

Putting Digital Health Records in Patients' Hands: Savva and Health Information Exchange in Uganda

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Abstract

As health systems in low- and middle-income countries move from paper to digital records, many patients still struggle to access and manage their medical histories. In this *News and Perspectives* article, JMIR Correspondent Sharon Muzaki reports on the potential and limitations of a new app for digitizing patient-held medical records and what its approach could mean for health information exchange in the Ugandan context.

Key Takeaways:

- Savva converts paper medical records into patient-held digital health histories that users can store and manage on their phones, with a separate conversational AI layer that allows them to interact with those records.
- In Uganda, meaningful patient control over digital health records will depend on interoperability, infrastructure, digital literacy, regulation, and data governance.

For many people in underserved communities, medical histories remain collections of paper records carried between health facilities. Laboratory results, prescriptions, and doctors' notes may stay in a booklet or file that patients must bring whenever they seek care.

[Savva](#), a [free consumer health app](#) with a paid conversational AI tier, is trying to turn those records into digital health histories that patients can keep and interact with on their phones. Its approach raises a larger question for countries such as Uganda: does giving patients a digital copy of their health history also give them meaningful control over it?

Digitizing Health Histories

Stephen Rouse, BA, cofounder of Savva, says he previously built health care products mainly for people in wealthier countries with more developed electronic health systems. After his previous company was acquired in 2022, he and his cofounder decided to focus more directly on health equity.

Savva first creates a digital layer for patient-held medical information. Users can photograph laboratory reports, after-visit summaries, prescription labels, and other medical documents. Its on-device optical character recognition (OCR) converts paper records and PDFs into structured health data. This can happen on the phone without requiring health information to be stored on Savva's servers.

"Most people around the world carry a binder with them," Rouse says. "They go to the doctor, and it's their paper medical records."



But digitizing a record does not automatically make it useful or give the patient meaningful control. The record must still be understandable, secure, portable, and usable when the patient moves between providers.

Savva is designed without an account or user record, with core digitized health information remaining on the user's device. A separate conversational AI layer allows users to interact with those digitized records. Users can choose among 12 AI models—on-device to keep data local or cloud-based for greater capability and faster responses—to query their records and ask the same question across multiple models to compare their answers.

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Uganda as a Test of the Idea

Uganda illustrates both the potential and challenges of patient-held digital records.

Peter Waiswa, PhD, professor of health policy, planning, and management at Makerere University School of Public Health, whose research focuses on health systems and implementation science, says Uganda faces a fundamental challenge integrating systems that have developed separately. Different registration and identification systems can leave information fragmented.

“Ideally, the starting point of actual digitalization should be birth registration,” Waiswa says. “Everybody has a unique number and they know it.”

A unique identifier could make it easier for health information to follow patients between facilities. But Waiswa stresses that the problem is not simply technical. Questions remain over who has the mandate to implement digital health tools, which regulators should be involved, and how systems should be governed.

“That’s why all these innovations just end up in the air,” he says, arguing that policy, leadership, and management problems must be addressed alongside technical challenges.



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Peter Waiswa, PhD

Uganda has developed a [Health Information and Digital Health Strategic Plan](#) and Health Information Exchange and Interoperability Guidelines, which provide a framework for exchanging health information across the health system.

Yet research identifies persistent barriers. [A 2024 study](#) found that many digital health interventions in Uganda were not interoperable and that common standards had not been consistently implemented.

Rouse identifies Uganda as one of the markets Savva intends to serve. For now, he describes digitizing patients’ existing paper records as a first step toward creating a digital layer that patients can control themselves. Longer term, he says Savva hopes to connect directly with hospitals in Uganda, allowing

health information to move between patient-held records and electronic health systems.

That is where [Fast Healthcare Interoperability Resources](#), or FHIR, becomes relevant. FHIR is designed to allow health information to be exchanged between digital systems. But technical compatibility alone does not guarantee meaningful exchange. Patients may be able to carry digital copies of their records without those records being automatically usable by another clinic or hospital. Questions of access, standards, governance, and consent therefore remain important.

Opportunity and Risks

Savva’s privacy model creates a practical problem if someone loses the device containing their health history. Rouse acknowledges the issue and notes that the company has considered ways for users to export and restore their health information.

Currently, connected health data remains on the user’s device by default, while cloud-based AI can send selected information to a third-party AI provider if the user opts in.

This trade-off illustrates a broader challenge: storing data on the device rather than on central servers can make recovery harder if patients lose their phones. Meanwhile, limited interoperability between health systems can make it difficult to share records across providers.

The conversational AI layer adds another set of opportunities and risks. Joyce Nabende Nakatumba, PhD, a senior lecturer in the Department of Computer Science at Makerere University and scientific head of the Makerere Artificial Intelligence Lab, says AI could help patients understand complex medical terminology and access health information in languages they understand, including Swahili and Luganda.

However, Nakatumba warns that AI models [trained predominantly on data from high-income countries](#) may not accurately interpret health information [across different populations](#). Patients may also place too much confidence in conversational AI because it responds quickly and appears empathetic.

Rouse acknowledges these limitations and says Savva is not intended to diagnose patients or replace health care professionals but rather to help users understand information in their health records.

Can AI Democratize Health Care?

Savva’s proposition is part of a broader shift toward putting health information directly in patients’ hands. Moving records from paper folders to phones could make medical histories easier for patients to keep, access, understand, and potentially share.

But democratizing access to information is not the same as democratizing health care.

For Waiswa, patient control over health information is valuable, but access also depends on devices and digital

skills. He warns that digital health could deepen existing inequalities if innovation primarily benefits people who already have smartphones, connectivity, and digital skills. He argues that Uganda needs to build digital literacy alongside digital infrastructure rather than assuming technology will automatically make health care more equitable.

Savva may help move health records from patients' folders onto their phones, but having the record is only the first step. Whether it gives patients meaningful control will depend on how securely and effectively those records can then be understood, shared, and used across the health system.

Keywords: electronic health records; medical records systems, computerized; artificial intelligence; interoperability; health literacy; digital health; Uganda; data governance; patient access to records

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