medkaz®

What is the "right" technology to provide medical record interoperability?

For 15 years, the popular consensus among health IT, tech and government leaders has been that the way to achieve medical record interoperability is to connect provider-siloed personal medical records using health information exchanges (HIEs). Today, that approach has come to include: trying to standardize record formats and content, "cloud" storage, patient registries, apps and smartphones, and an alphabet soup of technology, such as FHIR, HL7, APIs. Unfortunately, this approach doesn't work today and will take years, at best, to make it work.

What providers need and patients want is access to the patient's *complete* medical record from all their providers at the point of care. Nothing less. The cost of not having this information when needed is staggering. Each year as a result of medical errors, hundreds of thousands are sickened rather than healed, hundreds of thousands die, and hundreds of $billions are wasted. Yet the advocates of this approach persist, accept "partial" interoperability as progress, and ignore other approaches.

One other approach that does work is our patient-focused MedKaz® portable personal health record system. Instead of trying to link provider silos via HIEs, it assembles a patient's *complete* medical record from all his or her care providers, and the application to manage them, on a USB minidrive which the patient carries on a key chain and gives to any provider at the point of care.

Despite the fact that MedKaz works and gives providers and their patients access to the patients' complete medical record when they need it, it is ignored. Why? Because a USB minidrive is not considered to be secure, and its technology is considered "old" and "outdated."

The security concern — that "providers won't plug it into their computer because they fear it might contain malware and corrupt their system,"— is a non-issue. We strongly recommend that a MedKaz NOT be plugged directly into a provider's network. Rather, it should be plugged into a standalone computer in an exam room (they cost less than $300) and that a provider use it *alongside* his or her own computer or paper charting system. Used this way, providers access a patient's MedKaz for information about their patient's care, but enter their progress notes into their own system. This makes *MedKaz the safest, most secure system available*. It can't infect a provider's system, neither can the provider's system infect it.

The concern about "old" technology — that "in the world of apps and cloud computing, it does not make much sense to try to run with [a USB] device" and that "flash drives [are not] a product that will

be competitive in the current industry landscape" — is misdirected. The issue is whether the technology is "right" for the job today and tomorrow, not whether it is old or new.

As we developed, launched and enhanced MedKaz, some said our approach was interesting but wrong. At first they said: "It would be replaced in short order by (HIEs)." Then, "it was ahead of its time." Now, they say "it will be replaced by slicker, better, more sophisticated technologies."

Well, we all know how things have worked out. Neither HIEs nor the "slicker, better" technology has worked while MedKaz does! It is the *only system that makes a patient's complete record from all his or her providers available in one* place *and provides the interoperability care providers need and patients want! (*See the Appendix A for a comparison of MedKaz and other approaches to interoperability.)

So, is our MedKaz system on a USB minidrive the "right" technology even though more advanced technology is or may become available?

The answer is a resounding YES! MedKaz not only works but it is especially convenient and well-suited to handle the endless variables that continually impact healthcare and medical records. *It is simple yet extraordinarily powerful!* It has worked for years, works today, and will work tomorrow. If we adopted it today, we'd stop harming and accidentally killing patients, and would dramatically reduce the cost of healthcare!

The technology used in MedKaz is well established, easy to use and familiar to everyone who uses a computer. It turns every record into a SEARCHABLE PDF DOCUMENT. This allows both doctor and patient to search a MedKaz for specific records irrespective of how they are formatted, then easily read them in a browser. It is the same technology major search engines like Google use to manage massive databases containing highly disparate documents. Employing it on a MedKaz minidrive that the patient carries on a keychain ensures that the patient's records will always be available when and where they are needed, even during internet and power outages!

In fact, MedKaz has an almost endless list of advantages over other systems and approaches. It is a great example of "simple is better." It leapfrogs over all the serious problems that have plagued the provider-focused approach for so many years. It is affordable, requires no special training, enables providers to deliver better, lower-cost care, and saves money for everyone — patients, providers, employers, insurers and government.

Most importantly, MedKaz easily accommodates six requirements unique to healthcare.
1) Not all care providers want to keep records the same way. With MedKaz, they can keep their records anyway they like and still easily share them with others.
2) EMR vendors frequently change their systems, and providers frequently adopt new systems, so any record-sharing system must easily work with any system a provider uses. MedKaz does.

3)   Providers only have a few minutes with each patient and haven't time to click through multiple windows or search multiple sources and portals to access their patient's information. With MedKaz all their records are in one place, instantly searchable, and the search term is highlighted for immediate access.

4)   Patients increasingly want to access their records — to understand their issues, manage their care and automatically share them with family members and others. With MedKaz they can.

5)   All providers and patients, even with minimal computer skills, must be able to manage their records without special training and during internet or power outages. With MedKaz they can.

6)   Any system must be affordable and usable by everyone, whatever their age or income level — including the 57 million seniors and low-income adults who are heavy users of healthcare but do not have smartphones. And everyone must benefit from it. Everyone can use MedKaz and benefits from it.

Bottom line: MedKaz on a USB minidrive easily meets everyone's needs. It is secure, not vulnerable to internet hackers, and the perfect device on which to assemble a patient's complete medical record, engage them in their care, and ensure their care providers can instantly access their records at the point of care. Moreover, the universally accepted technology used by MedKaz is perfect for managing highly disparate patient records both today and tomorrow.

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Appendix A

How MedKaz® Compares

Features	MedKaz®	Apple Health	HIE Networks	Paper
Patient owns, controls; moves with patient	✓	✓		
Instantly available anytime, anywhere	✓	✓		
Contains patient's complete record from all providers past and present, in all cities, states	✓			
Complete notes, not summaries, accessible with two or three clicks	✓		✓	
Providers and patients can electronically sort, search, read, manage all records, including paper; patients can correct mistakes	✓			
Patient can automatically share records with doctors, parents, children, care givers, researchers, others	✓			
Easy to use, no special training required	✓	✓		✓
Updated for patient	✓	✓		
Secure, password controlled to two levels	✓			
Patient can lock individual records	✓			
Records available during power, Internet outages, natural disasters	✓	✓		✓
Reduces cost of care for everyone: patients, employers, payers, government	✓			
Patients save money; providers enjoy new income; employers, insurers, government save money	✓			
Affordable by everyone; financially self-sustaining	✓			✓