



Komal Sadani
Interface Manager, Patagonia Health

Interfaces and Connections

What are the types of interfaces and connections an EHR could support?

Sure. So EHRs were originally focused to coordinate care among providers, to help patients experience a higher quality of care, and ultimately lower healthcare costs for patients and organizations. With EHR interfaces, the electronic information exchange takes place between healthcare systems, which provides the highest level of continuity of care. This reduces ambiguity and enables better workflows. An EHR with a support interface to any other healthcare system improves the delivery of healthcare by making the right data available to the right people, at the right time.

What types of connections are critical for health departments to have?

It is important for healthcare departments to be connected with standard healthcare systems, such as labs, immunization registries, HIEs, or commonly used trusted frameworks, like Carequality.

For example, with bi-directional lab interfaces, providers can create lab orders in EHR systems, which can be sent to the lab. Also, the patient results can be received from labs and displayed on the EHR patient dashboard via the interface. In this way, it improves provided efficiency and reduces errors, as they do not need to create or maintain the same information in multiple systems.

Could you explain really quick, what the patient dashboard is, if somebody wasn't familiar with an EHR?

Okay, the patient dashboard on EHR is the place where you can view all patient demographics: historical as well as the current health condition of the patient. This can help healthcare professionals to make real-time data-driven decisions.

Earlier, you were talking about immunization, registries, and other interfaces. What does it mean when an interface can connect bi-directionally? What does bi-directional mean in an EHR?

A bidirectional interface means information is being exchanged by both the connecting healthcare systems. For example, with a bi-directional immunization interface, immunization records for the patients can be entered into the EHR and sent to the immunization registry. Also, all the historical and forecasted immunization for the patient can be queried from the registry and displayed on the EHR patient chart.

You also mentioned things like trusted frameworks, like Carequality, and I'm curious about that specifically. What is Carequality, and why is it important for health departments to have access to it via their EHR?

So Carequality has brought together the entire healthcare industry by providing a national-level, consensus-built, and common interoperable framework. It enables an exchange between and among health data-sharing networks.

A Carequality implementer is a health data-sharing network or service platform who has adopted and implemented the Carequality interoperability framework. It connects its customers and members to those networks that have also implemented the framework with Carequality. The health departments are empowered to connect and exchange data with more than 50,000 clinics and over 2,800 hospitals across the country.

Speaking of exchanges and data in general, with cybersecurity being such a huge issue that health departments have been facing recently, how is an EHR able to avoid cybersecurity challenges when they connect to HIEs or immunization registries? How can those health departments feel secure when transferring data via an EHR?

Security is one of the major questions that health systems bring up when talking about EHR adoption. While EHRs have made patient information more accessible than ever, the prevalence of EHRs opens the door for potential data breaches. However, the experts say cloud base EHRs are more secure than in-house EHRs. Cloud data centers are typically highly secured and well protected against outside and inside threats, using administrative, physical, and technical methods implemented and maintained by expert, professional staff. The safety and the security of patient information is one of the most important aspects of EHR adoption, and cloud-based EHRs are a step in the right direction.

EHR interface cybersecurity challenges can be avoided by connecting to other healthcare systems via secured communication, protocols such as a VPNs, SFTP or authenticated web services,

or SSL certificate handshaking. Security policies and Role-Based Access Control (RBAC) are some of the features that customers should look for while selecting an EHR.

You mentioned cloud systems previously, and I'm wondering what is a cloud-based solution? Or for those who may not know, what are the advantages of having a cloud-based solution for your EHR?

So cloud solutions, also known as cloud computing, or cloud services, deliver IT resources on demand over the internet. Cloud computing works by having companies host or maintain massive data centers that provide the security storage capacity and computing power to support cloud infrastructure.

Advantages of cloud-based EHRs are as follows: first, fast implementation. This is because no hardware or software installation is required. Another advantage is cost savings, as no hardware, software installation, or maintenance is required, and a lot of upfront costs is saved. Next, reduced IT requirements. Health departments no longer need to have their own team of IT experts to install, configure, test, run, secure, and update hardware and software.

Lastly, effective accessibility and collaboration. With the cloud, each of our users can securely login into the system from anywhere, on any device with secure Internet connection. Accessing the system outside of the office allows physicians, staff, and patients to collaborate more effectively and to achieve better care coordination. One more advantage of cloud computing is scalability. Cloud-based EHRs allow medical practices to think big and grow without breaking the bank.

About Komal Sadani*Interface Manager, Patagonia Health*

Komal Sadani is the data integration manager at Patagonia Health. She has more than a decade of experience in the healthcare space. Currently, Komal leads numerous health department projects and has been successful in exchanging data electronically from our EHR to their required partner system.