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Large-Scale eHealth Initiative: Decision Points and Best Practices



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LARGE-SCALE eHEALTH INITIATIVES: DECISION POINTS AND BEST PRACTICES

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Around the world, health ministries and CIOs at national and regional levels are looking for the best way to drive IT in their healthcare systems. With increased demand for health services and a shortage of care resources, their motivation is clear: Care providers can make the best possible diagnoses and treatment decisions when they have access to data from all sources. In addition, capturing and exchanging patient clinical data electronically creates alternatives to face-to-face care that can be equally effective, less costly and more efficient.

Large-scale eHealth initiatives that include health information exchanges (HIEs) and electronic health records (EHRs) are a necessary component to the overall healthcare transformation solution that addresses today's challenges and provides the care benefits cited above.

Today, European countries are more advanced than the U.S. in implementing large-scale eHealth initiatives. EHR adoption is approaching universal implementation for general practitioners in countries like Denmark, the Netherlands, the UK and Norway, whereas in the United States, EHR usage is less than 20 percent. In Europe, planning and building of national data exchange solutions are also much further along.

Even under the best circumstances, eHealth initiatives face technology challenges, are organizationally and politically complex and costly, and take years to complete. Electronic capture and storage of health information always brings forth differing, often very strong, opinions about patients' rights, providers' needs and government intervention and responsibilities.

Key decision points

Implementing the right eHealth solution depends on a number of key decisions — some technical, most not. Our experiences span Europe — Denmark, the Netherlands and three regions in the UK — and the U.S. — New England Healthcare EDI [Electronic Data Integration] Network (NEHEN) and Massachusetts Simplifying Healthcare Among Regional Entities (MA-SHARE). Together, this work has helped us identify the top 12 critical decision points that administrators need to address and the options that work best under specific circumstances. The decision points are grouped under the following topics: planning and sustaining the initiative, major issue management, governance and communication, technology and interoperability, and implementation.

Planning and sustaining the initiative

Critical decisions made in the planning stage can lead to early wins and long-term viability. These decisions include setting expectations, defining success and measuring value, documenting IT requirements to the appropriate level of clarity, and securing funding. As administrators set expectations, they need to remember that healthcare transformation initiatives are supported by eHealth solutions — they are not technology projects.

For example, as Denmark's goal is to allow patients to get the best care wherever they are, the data needs to follow patients, not vice versa. By leading with the health reform requirements instead of the technology ones, stakeholder and end-user expectations are focused first on the solution's healthcare value and secondarily, on using technology to improve efficiency and access.

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Defining the solution's value, first, also helps direct the technical requirements' specifications. These need to be detailed enough to identify functions, features and data requirements for each type of end user application, functionality, data storage/data access requirements, connectivity and IT resources, and support services. In the case of NEHEN, for example, all stakeholders agreed to a single patient insurance-eligibility implementation guide for payers, which significantly simplified design, installation and support.

The solution needs to be financially sustainable. We believe the best practice is to build a solution and business model where the stakeholders who stand to benefit most from the eHealth initiative are willing to pay for it. In Europe, all of the eHealth efforts we supported were government funded, whether the countries had a government-funded healthcare system (as in Denmark and the UK) or a private one (as in the Netherlands). In the U.S., for example, in Massachusetts, regional eHealth efforts are not government funded but are sustainable through win-win solutions.

Major issue management

Identifying, prioritizing and addressing "show-stopping" roadblocks are critical steps for eHealth program momentum and success, especially where regulatory changes are required. Two issues that often raise concerns and result in lengthy debate are patient identification, and privacy and security. These issues should be addressed early on, especially if they threaten to delay or even end the project if agreement cannot be reached. For one initiative, not reaching consensus on patient privacy and security requirements delayed the project for two years, requiring the adoption of a new patient rights law.

If security safeguards are not in place, as well, the consequences can be costly for providers and



patients. A 2009 news article cited 140 security breaches of UK National Health Service (NHS) systems that resulted in thousands of lost medical records. Stolen and lost hardware containing patient data was the most common reason for information disappearance.

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Governance and communication

Governing bodies need to involve key stakeholders, solicit input from end users and communicate regularly. Governance should be centralized whenever possible to speed decision making and progress, especially during the planning and requirements phases. Communication should be balanced — including good news, such as implementation successes, as well as setbacks, such as delays — and delivered using methods that meet stakeholder needs.

A difference in architecture and interoperability

Because of the differences in systems and country administrations, there is no one best practice for the eHealth technology architecture. However, in large federal initiatives, slim infrastructures and public health applications tend to be on the federal level, whereas the majority of value-adding applications tend to be set up in regions/states or even by stakeholder, where the care process actually occurs.



For large-scale interoperability, data and infrastructure standards and application certification, along with central managing organizations, are also requirements for success. For example, the Netherlands has established a certification system for EHRs and connection-service providers. In Denmark, a national public project organization (MedCom) dictates the standards for that country's National Data Network.

Implementation


For large-scale initiatives, implementation takes years, involves many people and is never problem free. Implementation planning starts in the early phases of program development and is ongoing to adjust for necessary changes and unexpected delays.

“Pilot first, then roll out incrementally” is the mantra for large-scale eHealth implementations. The technology, especially the infrastructure and central applications, is new. As there will be system errors and missing functionality, starting small — with a core group of sites that are willing to invest the time and resources to work through the bugs — will prevent major problems as the systems are rolled out.

“PILOT FIRST, THEN ROLL OUT INCREMENTALLY” IS THE MANTRA FOR LARGE-SCALE eHEALTH IMPLEMENTATIONS.

Summary

The eHealth initiatives in Denmark, the Netherlands and the UK are enormously successful, complex efforts that are showing positive results, even in their early stages. All have plans to continue to roll out additional functionality and expand their connectivity reach. Numerous other countries in Europe are rapidly moving from planning to regional implementation. In the U.S., a national effort with substantial funding is currently undertaking the foundational work needed to build its eHealth solution. Although the cultures, starting points, requirements and funding options for these pioneering efforts may differ, the progress, challenges and lessons learned provide valuable guidance to all large-scale eHealth initiatives in development. ■

 For the complete white paper, go to www.csc.com/ehealthinitiatives.

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