

Lessons Learned

1. Data Are for Sharing.

The categorical manner in which state health department information systems have been developed historically has largely influenced current practices in health information access and sharing. Programs know there is added value in sharing data among programs, but to do so requires major re-engineering of information systems, their organizations, and the way program and IT staff do their jobs – changes that people and programs tend to resist.

In addition, there are other barriers to sharing health information: concerns that the funding that provided the data may not support sharing it; concerns that sharing data with another program may threaten a program's authority; and concerns that the wrong people may see the data or the data may be misused.

Health departments, however, are increasingly recognizing the value of sharing information not only among multiple programs, but also private sector providers, policymakers, and the public. Dr. Patricia Nolan, director of the Rhode Island Department of Health, aptly stated her department's perspective on sharing health information: "Information is a product, not a possession." The Rhode Island view is that information is a tool to be used to enhance all programmatic efforts.

Similarly, Garland Land, director of Missouri's Center for Health Information Management and Evaluation, says, "The bigger risk to public health is data not being used, rather than data being misused."

Yet integrated information systems projects know that data sharing must be voluntary. The extent to which information will be shared must be negotiated with each program, taking into consideration policy (legislation) and users' "need to know."

The integration of health information systems requires

changing perspectives about data ownership. This change will come about slowly, as states' policies frequently are a reflection of local values. As the various stakeholders – programs, providers, parents, policymakers – begin to realize the value that sharing information brings, their perspectives will shift.

2. Listen Up!

Communication skills are at the top of the list of skills and knowledge needed by those managing a public health information systems project, say experts. Computer science, information science, public health expertise – all of these also are essential, but without the interpersonal, organizational, and management skills needed to communicate with stakeholders, an information system project's chances of success are considerably diminished.

Among grantees integrating their health information systems, effective communication means identifying stakeholders' concerns and listening carefully to them. In Iowa, for example, grantees emphasized the importance of the role of business analyst, the person who listens to programs and translates their needs to the technical staff. In Oregon, grantees noted the importance of the executive sponsor listening to legislators' concerns about privacy and confidentiality and working to ensure that FamilyNet addressed those concerns. And in Rhode Island, communications skills are critical to the role of the provider relations coordinator, who actively and frequently sought feedback from the providers using the system.

As these examples demonstrate, even in this age of mass media and Internet communications, personal contact remains the most powerful communication channel. This is especially true when the message is complex, as is the case with integration of health information systems.

Who delivers that message also is important. A group of people is much more likely to "hear" a message when it is delivered by someone who shares their own beliefs and experiences. For example, in several states, champions for integration projects are physicians who can communicate effectively with providers. Similarly, IT staff relates best to other IT staff, and program staff to other program staff.

3. Change Is Hard.

"Health care is constantly evolving. Wave after wave of new technologies, insurance models, information systems, regulatory changes, and institutional arrangements buffet the system and the people in it. But people and institutions, for the most part, do not like change. It is painful, difficult and uncertain."

Diffusion of Innovation in Health Care (May 2002). Ihealth Reports, Institute for the Future

Implementation of an integrated health information system is much more than implementation of hardware and software. Its success is largely dependent on the commitment of public health management, IT staff, and program staff to implementing an information system that will change the way they do their

jobs. And although organizations have come to accept the idea that change is inevitable, it's easy for them to forget how hard it can be.

Within a health department that is integrating information systems, different roles (e.g., executive sponsor, manager, IT and program staff) will experience different kinds of change – operational, strategic, cultural, and even political change – each with its own set of challenges.

Among grantees integrating their health information systems, those that employed change management strategies to mitigate these challenges – consciously or unconsciously – increased their likelihood of successful project implementation. Strategies include ensuring all stakeholders are “on board” with the project from the beginning; seeking input and feedback throughout the project lifecycle; ensuring staff have the training and resources to do their jobs; and perhaps most importantly, demonstrating the commitment of leadership to the integration of information systems.

The natural tendency of people is to hold on to the status quo, and the introduction of a new or changed information system can be threatening. It is up to leadership to recognize the magnitude of change that will result from integration of health information systems and to introduce strategies to increase acceptance.

4. Let Public Health Program Needs Drive Technology.

All too often, information systems are developed with the latest, most advanced technol-

ogy only to find that the system does not meet the needs of its users. In health departments, this can easily happen when managers of information system projects that integrate multiple programs do not adequately outline project goals, project design, and information system outcomes before looking at technology solutions. They may also fail to gain participation from key public health program managers in the development of the system specifications. In these cases, technology solutions rather than the needs of the programs drive the system specifications. Technology must serve the public health program's goals and ends, rather than the reverse.

Because they involve more than one public health program, integrated information system initiatives are highly complex projects. When the information technology managers of these projects work collaboratively with public health program managers to guide or assist in the formulation of the rationale for the new integrated system (e.g., the business case), there is a logical linkage to program outcomes and service to the end users. But when these managers turn over their responsibility for goals, outcomes, and performance metrics of the new system to technology, the result is systems that users will not use and that fail to meet important program goals. Strong direction from the managers of integrated systems projects in the development of system specifications is essential to successful integration efforts.

5. Stay the Course.

The study of technology adoption has taught that not only is change hard (Lesson #3), it is also slow. Most health departments integrating their systems have been pursuing their goal for just a few years. But two states, Rhode Island and Missouri, have been building toward a comprehensive child health record that supports a range of program services for 10 years.

What does that mean for implementation of integrated health information systems, especially given the high failure rate of such projects?

First, health departments considering launching an integrated health information systems project need to think carefully about the critical elements for implementing these systems, as discussed in this report. Leadership, project governance, project management, stakeholder involvement, integration strategy, technical support and coordination, financial support and management, policy support, and evaluation – when best practices are employed in each of these key elements, an integration project's chances for success are improved.

Second, funding agencies and health department leadership should provide opportunities for project management and staff to learn from others who are implementing integrated information systems. Best practices can leapfrog from one project to another in a supportive, collegial environment. Shared experiences can provide project staff with new insights and energy to infuse into their projects.

Third, health departments, funding agencies, program and IT staff, and other stakeholders who share the vision for integration of health information systems should recognize that they need to be committed for the long haul and that patience is required to realize that vision. Everett Rogers, author of the seminal work on adoption of new technologies, *Diffusion of Innovations*, noted, "Getting a new idea adopted, even when it has obvious advantages, is often very difficult."