

Perspective

Retrospective: Lessons Learned From The Santa Barbara Project And Their Implications For Health Information Exchange

Through a series of small steps, the larger goals of health information exchange can be realized.

by **Jonah Frohlich, Sam Karp, Mark D. Smith, and Walter Sujansky**

ABSTRACT: Despite its closure in December 2006, the Santa Barbara County Care Data Exchange helped focus national attention on the value of health information exchange (HIE). This in turn led to the federal government's plan to establish regional health information organizations (RHIOs). During its existence, the project pioneered innovative approaches, including certification of health information technology vendors, a community-wide governance model, and deployment of a peer-to-peer technical model now in wider use. RHIO efforts will benefit from the project's lessons about the need for an incremental development approach, rigorous implementation processes, early attention to interoperability concerns, and planning for a sustainable business model. [*Health Affairs* (2007): w589-w591 (published online 1 August 2007; 10.1377/hlthaff.26.5)]

In 1998, in response to a request from the Santa Barbara County health care community about how it might improve the quality and safety of care to its patients, the California HealthCare Foundation (CHCF) spent more than a year assessing the opportunity to develop a communitywide approach to health information exchange (HIE). The resulting objectives of the Santa Barbara Project were to create a simple and secure way to electronically share patient data across organizations; a public utility available to all physicians, caregivers, and consumers; an experiment to determine whether a community would share the cost of a regional information technology (IT) infrastructure; and a model for other communities

in California and across the United States. The five-year, \$10 million investment made in 1999 was the largest single grant made by the CHCF and, admittedly, one of its largest investments. Eight years after the project's closure, it is important to understand what actually happened.²

■ **Bold vision; poor execution.** The vision for the Santa Barbara Project was bold: Connect all health care institutions across Santa Barbara County and create a secure mechanism for appropriately

to greatly lower the cost of operation, improve security, and address data ownership concerns. Also, a comprehensive framework was designed to address the legal, organizational, and governance requirements of the endeavor.

Efforts to adequately plan for and execute the technology were not as successful. Initially, the vendor erred in its assessment that the technology needed to implement the Care Data Exchange (CDE) already existed in the market. Second, the vendor's subsequent development and implementation of its own technology was slow and did not adequately define users' functional requirements, which necessitated redesign and redevelopment of important functionality. Last, poor documentation and insufficient testing of the data interfaces meant that many of them had to be reworked, introducing further delays. In all, a development project scheduled to take three years took six; unfortunately, the boldness of the vision was not matched by a focused and

CDE functionality, and once launched in the froth of the... The visionaries leading the... companies were encouraged... fast, and push the end... logical capabilities. The... build a comprehensive... change (HIE) also... address most... cipal



expressed. Lessons regarding technology challenges, user requirements, and liability concerns could have been learned earlier and applied to the sharing of other information, such as pharmacy or radiology data. Input from users could have been gathered and assessed to allow for refinement of the system's user interface. Immediate value would have been ~~created~~ and reliably quantified to establish momentum for the project.

o ■ **Distributed peer-to-peer model viable.** The project demonstrated