

# The Management Moment

Column Editor: Edward L. Baker, MD, MPH

## Building an Informatics-Savvy Health Department: Part I, Vision and Core Strategies

Martin LaVenture, PhD, MPH, FACMI; Bill Brand, MPH; David A. Ross, ScD; Edward L. Baker, MD, MPH

.....

The rapid evolution of the use of digital information in public health practice is changing the way health agencies do business.<sup>1</sup> Increasingly, technological advances are creating a sense of urgency for the public health sector to change its operational model from that of an “information consumer” to an “information broker.” Furthermore, as the health care industry moves rapidly into the world of electronic health records and health information exchanges, public health agencies must adapt to effectively partner with health care organizations.

One result of these trends is increased pressure on public health agencies to electronically exchange data using health care standards. Data are now arriving from more sources and at faster velocities. Agencies face the daunting challenge of effectively processing the information, separating the “data wheat from the chaff,” given the high “signal-to-noise ratio” in these new data sources.

Recent federal incentives and policy initiatives (eg, Affordable Care Act, HITECH Act, meaningful use standards) further accelerate the transition into what some have called “e-public health.” In addition, more organizations are involved in the population health arena, including accountable care organizations and health IT vendors. As a result, public health agencies have more competition in the population health information marketplace.

In addition, public health agency leaders, faced with growing needs for cost savings, now see informatics as a core discipline to address increased pressures for enhanced efficiency and improved organizational performance. These pressures are made more acute as a result of aging information systems that must be redesigned or replaced. Centralization of IT services within many

state governments has made implementing such improvements more organizationally challenging.

Finally, consumers are also a major driver in the move to provide timely digital access to health information. Frequently, the desire by the public for healthier communities has led to a need for meaningful community health status information.

These forces challenge the leadership of public health agencies to enhance the informatics capacity of their organizations. Addressing these challenges will determine not only the capability of the health agency but also its *credibility*, both as an exchange partner and as a population health expert.

In this column, we focus on the vision and core strategies needed to create an *informatics-savvy health department*—designed and staffed to address the urgent and pervasive challenge of becoming the health information broker in support of community health. In our next column, we will discuss operational implications and tactics needed to build an informatics-savvy health department.

### ● Vision

An informatics-savvy health department is one that can obtain, effectively use, and securely exchange information electronically to improve public health practice

---

**Author Affiliations:** Office of Health IT and e-health, Minnesota Department of Health, St Paul (Dr LaVenture); Public Health Informatics Science, Task Force for Global Health/Public Health Informatics Institute, Decatur, Georgia (Mr Brand); Public Health Informatics Institute, and VP Task Force for Global Health, Decatur, Georgia (Dr Ross); and Department of Health Policy and Management, UNC Gillings School of Global Public Health, Chapel Hill, North Carolina (Dr Baker).

The authors declare no conflicts of interest.

**Correspondence:** Edward L. Baker MD, MPH, Department of Health Policy and Management, UNC Gillings School of Global Public Health, Campus Box 7411, Chapel Hill, NC 27599 (elbaker@email.unc.edu).

DOI: 10.1097/PHH.000000000000149

and population health outcomes. To reach this vision, the agency must have an informatics skilled workforce coordinated through an effective agency-wide governance process, employing a disciplined approach to design and use of information systems that effectively support agency program objectives.

## ● Core Strategies

- I. *Knowledgeable and decisive leadership*: To address the organizational challenges associated with creating an informatics-savvy health department, knowledgeable, decisive leadership is required. Leaders must create a sense of urgency and build a shared vision of how information will be managed and used as *the* key strategic organizational resource. Leadership must empower a team to create policies, practices, organizational structures, and a competent workforce. In addition, leaders should be involved in the process of creating performance metrics for the agency's information systems. Leaders need to know what questions to ask to ensure that solid informatics planning and execution are occurring, including in the acquisition or major enhancements of systems. Leaders must be involved in monitoring progress and helping the team to overcome obstacles. Most importantly, the agency must put a leader "in charge" with the responsibility, authority, and informatics skills to make the tough decisions required to implement this transformative vision.
- II. *Effective policies and governance*: Implementation of interoperable health information systems is an increasingly complex task as issues of information exchange and security become of paramount importance. Agency policies must be developed to ensure information systems adhere to national standards and that sound project management principles are adhered to. Furthermore, these policies and guiding principles must be created in a way that fosters agency buy-in and understanding by all staff members. Creation of an organizational informatics unit (to be discussed in more detail in a later column) is essential to developing these policies and guiding principles and to ensuring that policies will be followed.
- III. *Stronger partnerships*: Stronger relationships with data exchange and other community partners are critical to ensuring mutual benefit in an era of health information exchange and population analytics. Public health agencies must be better at making information available to partners in timely ways that bring real value, whether it is in clinical decision support, situational awareness, or community

needs assessment. Furthermore, effective relationships between government agencies and programs and with central IT and IT vendors as strategic partners are crucial. Development and management of these relationships require ongoing involvement of leaders and managers within the informatics-savvy health department. These relationships are formalized through agreements that should be treated as living documents requiring updating and regular review.

- IV. *Skilled workforce*: To achieve the goal of creating an informatics-savvy health department, workforce competencies needed for critical roles in the agency must be addressed.<sup>2</sup> At senior and mid management levels, leaders must become familiar with the strategic, mission critical aspects of health information management to effectively lead and monitor organizational system change. Typically, the task of improving information management and systems goes well beyond technical challenges and relates directly to managing fundamental organizational changes that are adaptive in nature.<sup>3</sup> Information systems managers and staff require competency in creating formal system requirements,<sup>4</sup> managing vendor relationships, executing change control processes, and assuring standards adherence and system interoperability. Users of information and information systems also require knowledge and understanding of system operations to become more effective system participants.

## ● Conclusion

To address the urgent needs of public health agencies to meet new demands and more efficiently use resources, we propose the adoption of a national goal of creating informatics-savvy health departments. In our view, the 4 core strategies needed to achieve these lofty goals are as follows: (1) knowledgeable and decisive leadership; (2) effective policies and governance; (3) strong partnerships; and (4) a skilled workforce.

In our next column, we will build on this conceptual framework to delineate the operational and tactical issues that arise in achieving this goal. We will also offer examples of health agencies that are becoming informatics-savvy and will identify resources to assist in building an informatics-savvy health department.

## REFERENCES

1. Kirkwood J. Aligning informatics across the public health enterprise. *J Public Health Manag Pract*. 2012;18(3):288-290.
2. *Informatics Workforce Classifications and Descriptions*. Decatur, GA: Public Health Informatics Institute; 2012.

- <http://www.phii.org/resources/view/6423/Workforce%20Position%20Classifications%20and%20Descriptions>. Accessed August 1, 2014.
3. *Public Health Informatics Profile Toolkit*. Decatur, GA: Public Health Informatics Institute; 2009. <http://www.phii.org/resources/view/150/Public%20Health%20Informatics%20Profile%20Toolkit>. Accessed August 1, 2014.
  4. *Finding Common Ground: Collaborative Requirements Development for Public Health Information Systems*. Decatur, GA: Public Health Informatics Institute; 2010. <http://www.phii.org/resources/view/152/Finding%20Common%20Ground%203A%20Collaborative%20Requirements%20Development%20for%20Public%20Health%20Information%20Systems>. Accessed August 1, 2014.