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Fifth District

June 29, 2009

To: Supervisor Don Knabe, Chairman
Supervisor Gloria Molina
Supervisor Mark Ridley-Thomas
Supervisor Zev Yaroslavsky
Supervisor Michael D. Antonovich

From: William T Fujioka
Chief Executive Officer

INITIAL REPORT ON THE COUNTYWIDE HEALTH INFORMATION TECHNOLOGY ASSESSMENT (ITEM NO. 73, AGENDA OF JUNE 30, 2009)

On April 7, 2009, on motion by Supervisor Ridley-Thomas, your Board instructed the Chief Executive Officer (CEO), the Acting Chief Information Officer (CIO), the Interim Director of Health Services (DHS), and other appropriate County departments to conduct a feasibility assessment of creating a Countywide Health Information Technology (HIT) Demonstration Project to enable a cost effective and secure electronic exchange of patient medical records among relevant public and private health providers, with specified capabilities.

The motion also directed the CEO to: a) create a technical advisory group that includes key private and public partners and to report back with a description of the proposed HIT initiative, cost estimate, proposed technical advisory group members, proposed source of public and private funds (including federal economic stimulus funds) and implementation schedule; and b) ensure that individuals appointed to the technical advisory group are informed that County policies and/or procedures may exclude them from bidding on future HIT projects due to potential conflicts.

This memorandum provides the initial report of the strategic feasibility assessment for the countywide health information technology project related to your Board's directive. In conducting the assessment, this Office established a Core Working Group (CWG) consisting of members from this office, DHS, CIO, and the Departments of Mental Health (DMH) and Public Health (DPH). In coming weeks, the CWG will be expanded

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to include other County departments that maintain/utilize health information systems, such as the Sheriff, Probation, and the Department of Children and Family Services.

The CWG has met regularly to outline the general components of the project: the vision, goals and objectives for the system; its strategic functions; the working assumptions for the assessment; and the specific tasks to be completed. The CWG discussions recognized the nature of this very ambitious project, given the size of Los Angeles County and the challenges created by its large and diverse populations and the complicated mix of healthcare providers and healthcare financing methodologies.

The initial findings from the discussions are reflected in the attached interim report, with a few referenced below. While some of the assumptions may appear obvious, it is important to identify them in the report to ensure a common understanding within the County family, as well as with other entities involved in these efforts.

The suggested Project name, for ease of reference, is the Los Angeles Network for Enhanced Services (LANES). The vision for LANES is to be an integrated, secure and forward-looking information management system that will facilitate the provision of timely, patient-centered and high quality healthcare across the continuum of services, the management of emergency and other situations important to the public's health, and continuous quality improvement of healthcare and public health processes and outcomes.

FINDINGS

- There are compelling reasons why the County should implement a countywide health information management system (HIMS), including the potential to improve the safety, quality and effectiveness of healthcare; better manage rising healthcare costs; increase the coordination and continuity of service delivery; strengthen the County's ability to control communicable and chronic diseases; and support management of mass casualty and other emergency situations.
- There is a current window of opportunity to gain federal funding to assist in developing a County HIMS from HIT-related funds appropriated in the American Recovery and Reinvestment Act of 2009 (ARRA) and possibly other sources. The requirements of procuring these funds are still being developed, but the turnaround time for funding applications will be short. The CWG is monitoring and assembling information in this regard.

- A countywide HIMS needs to include several components, such as: (a) an electronic health record (EHR) system utilized by County facilities; (b) various disease surveillance and other public health information systems utilized by DPH; (c) a health information exchange (HIE) to support the flow of health and healthcare-related information between various facilities, public and private; and (d) interfaces to facilitate connectivity with State and federal information systems.
- LANES should be designed to support and promote several broad functions by facilitating the timely sharing of health- and healthcare-related information, including:
 - Provision of timely, patient-centered and high-quality healthcare;
 - Management of communicable and chronic diseases;
 - Management of emergency situations of public health significance;
 - Continuous quality improvement of healthcare and public health activities; and
 - Public-private collaboration.
- LANES should be designed to achieve multiple goals, including:
 - Improvement of the public's health and functionality;
 - Improvement of healthcare outcomes and individual well-being;
 - Improvement of the effectiveness, efficiency and timeliness of healthcare;
 - Increased ability to measure and improve performance;
 - Increased ability to manage and utilize population health data;
 - Improvement of disease surveillance and disease management;
 - Response to emergency situations requiring public health or health activity; and
 - Support of academic activities.

TIMELINE

The current projected timeline is to complete the strategic feasibility assessment and begin discussions with your Board and private entities in July 2009. We anticipate providing recommendations to your Board in August 2009. If supported by your Board, the early planning for LANES should be completed by December 2009.

Advanced planning would be completed by June 2010, with the intent to begin executing the plan in July 2010. The goal would be to have the system implemented and operating during 2014. A number of variables outside the County's control could affect this projected timeline.

Each Supervisor
June 29, 2009
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NEXT STEPS

With concurrence from your Board, it is recommended that the CWG, led by this Office:

- Continue to develop a strategy for LANES. This should be done as quickly as possible to optimize the chances of successfully competing for funds being made available through ARRA and other sources;
- Develop options for the Board's consideration for ensuring the LANES project will be managed and operated in a financially and otherwise prudent manner, including the establishment of a public-private partnership; and
- Initiate efforts to begin a dialogue for aligning LANES with the State Health Information Exchange Initiative and other related efforts currently underway.

If you have any questions, please contact me or your staff may contact Mason Matthews of my staff at (213) 974-2395 or mmatthews@ceo.lacounty.gov.

WTF:SAS:MLM
MM:yb

Attachment

c: Executive Officer, Board of Supervisors
County Counsel
Chief Information Officer
Interim Director, Department of Health Services
Director and Health Officer, Department of Public Health
Director, Department of Mental Health

**LOS ANGELES NETWORK FOR ENHANCED
SERVICES**

INITIAL REPORT OF A STRATEGIC FEASIBILITY ASSESSMENT

June 27, 2009

LOS ANGELES NETWORK FOR ENHANCED SERVICES¹

Initial Report of A Strategic Feasibility Assessment

PURPOSE

In response to the Los Angeles County Board of Supervisors (Board) instruction of April 7, 2009, this report presents the initial findings of a strategic assessment of the feasibility of designing a health information management system for Los Angeles County.

BACKGROUND AND CONTEXT

Modern healthcare is a highly knowledge- and information-intense enterprise, and the use of health information technology (HIT) has been shown to be capable of improving healthcare quality and service, increasing productivity and reducing costs. However, healthcare as an enterprise has been slow to adopt HIT, compared to other industries, for a number of reasons.

Growing concerns about deficiencies in healthcare safety and quality, as well as soaring healthcare costs, and the recent availability of new federal funds for HIT, among other things, have catalyzed increased interest in adopting HIT.

Mindful of these dynamics, and in response to the Board's directive, in May 2009, the Los Angeles County (LAC) Chief Executive Officer (CEO) convened a group of individuals from his office and selected County agencies (hereafter referred to as the Core Working Group (CWG), the membership of which is listed in Appendix A) to conduct a strategic assessment of the County's ability to design, plan and implement a health information management system (HIMS) that would facilitate the delivery of healthcare services; support public health activities aimed at controlling communicable diseases, chronic illnesses and other conditions important to population health; and help manage emergency situations impacting healthcare and the public's health. All three aims are very important, but the latter two are especially pertinent for the Board of Supervisors because of government's inherent responsibilities for these activities and because of Los Angeles County's uniquely high risk for both natural and man-made emergency situations.

METHODS

Since the CWG was convened it has met about weekly, and it has reviewed a wide variety of materials to inform its discussions. An independent consultant having uniquely relevant experience and knowledge was retained by the CEO and has facilitated these discussions, the findings of which are summarized in

¹ Report prepared by Kenneth W. Kizer, MD, MPH, and the CEO's Core Working Group.

this report. Multiple additional matters are currently being investigated and will be discussed in subsequent reports.

FINDINGS

1) There are compelling reasons why the Los Angeles County government (County) should implement a countywide health information management system. These reasons include the potential of such a system to improve the safety, quality and effectiveness of healthcare; better manage rising healthcare costs; increase the coordination and continuity of service delivery; strengthen the County's ability to control communicable and chronic diseases; and support management of mass casualty and other emergency situations.

2) There is a current window of opportunity to gain federal funding to assist in developing a Los Angeles County (LAC) HIMS from HIT-related funds appropriated in the American Recovery and Reinvestment Act of 2009 and possibly other sources (e.g., the California Telemedicine Network).

The conditions of and processes for procuring these funds are still being developed, but the responsible federal officials have indicated that such information will be forthcoming soon and that the turnaround time for funding applications will be short. The CWG is monitoring and assembling information in this regard.

3) A considerable amount of HIT has been adopted by both public and private health-related organizations in LAC during the past decade, although utilization of HIT by individual organizations remains highly variable. Achieving optimal benefit from the adoption of HIT that has been implemented has been confounded by a variety of problems. For example, the growth of HIT utilization within and among County departments has been "organic," resulting in a multiplicity of IT systems being adopted that are not interoperable nor connected in a planned and predictable manner. Likewise, the organizational capacity to use HIT, both within County departments and in the private sector, is heterogeneous; healthcare processes have generally not been redesigned to optimize the use of HIT; and an "HIT-savvy" healthcare culture has not yet evolved.

4) Important work to develop health information exchanges (HIEs) in LAC has occurred in recent years (e.g., Health-e-LA and the Long Beach Health Network). However, these efforts are still nascent, and they have focused primarily on the provision of routine healthcare.

5) Private sector healthcare providers have implemented a variety of proprietary electronic health record (EHR) systems. These have few HIE interconnections except, in selected cases, within the provider's own network.

6) Because of LAC's high risk of natural and man-made emergency situations, more attention needs to be directed to developing enhanced information management capabilities to support the response to mass casualty, public health emergency and domestic security situations.

7) Multiple federal and State confidentiality regulations appear to constrain sharing of patient information across County departments. Issues in this regard are being further evaluated.

8) A countywide HIMS would need to include several components, each of which is itself composed of multiple disparate elements. These components include:

(a) the IT systems utilized by County owned and operated healthcare and mental health facilities;

(b) the various syndromic surveillance and other public health information systems utilized by local departments of public health;

(c) a HIE to support the flow of health and healthcare-related information between and among a multitude of public and private community clinics, acute care hospitals, and other facilities;

(d) interfaces to facilitate connectivity with State and federal information systems; and

(e) other components still being defined.

9) To facilitate communication about the LAC HIMS a name for the project is needed. The CWG proposes that this initiative be called the Los Angeles Network for Enhanced Services (LANES) Project.

10) LANES is envisioned to be an integrated, secure and forward-looking information management system that will facilitate the provision of timely, patient-centered and high quality healthcare across the continuum of services, the management of emergency and other situations important to the public's health, and continuous quality improvement of healthcare and public health processes and outcomes.

11) In conceptualizing the design and operation of the LANES, the CWG made a number of assumptions about the future of healthcare delivery, information technology, healthcare costs, the County's financial situation, and project management, among other things. These assumptions are detailed in Appendix B.

12) LANES should be designed to support and promote several broad functions by facilitating the timely sharing of health- and healthcare-related information, including:

- a. Provision of timely, patient-centered and high-quality healthcare, including day-to-day, emergency and mass casualty care;
- b. Management of communicable diseases, chronic conditions and other maladies affecting population health;
- c. Management of emergency and other exigent situations of public health significance, including natural and technological disasters and matters involving domestic safety and security;
- d. Continuous quality improvement of healthcare and public health activities; and
- e. Public-private collaboration.

13) LANES should be designed to achieve multiple specific goals, including:

- a. Improvement of the public's health and functionality;
- b. Improvement of healthcare outcomes and individual well-being;
- c. Improvement of the effectiveness, efficiency and timeliness of healthcare processes, including increased safety and better coordination of services across the continuum of care;
- d. Increased ability to measure and improve performance, including the development of healthcare best practices;
- e. Increased ability to manage and utilize population health data;
- f. Improvement of syndromic surveillance and the ability to detect and manage communicable disease and toxic chemical-related incidents of public health significance;
- g. Response to mass casualty and other emergent situations requiring public health or healthcare activity; and
- h. Support of academic activities.

14) LANES would be a very ambitious project given LAC's geographic size and its large population, diverse culture, and complicated mix of healthcare providers and methods of financing healthcare, which create unprecedented challenges.

Healthcare services for the more than 10 million LAC residents are provided by a complicated mix of public and private facilities that include 107 general acute care hospitals, 73 of which have licensed emergency departments; nearly 400 skilled nursing and long term care facilities; and more than 200 community clinics. The County owns and operates four hospitals, including one of the largest and busiest hospitals in the nation, and operates or contracts with more than 135 community clinics. Other notable healthcare assets in LAC that would need to be considered for inclusion in LANES are a sophisticated pre-hospital emergency medical services system, an organized trauma care system that includes 13 designated trauma centers, several burn centers, and a countywide poison control center. Several internationally renowned academic and health-related research centers are located in LAC, and patients come from all over the world for care at these facilities. The 21 universities and 42 colleges in LAC train a wide array of health professionals.

Financing of healthcare services in LAC is also complicated, including a mix of commercial insurance of various types and multiple public programs (local, state and federal). Approximately 60 percent of LAC residents have commercial insurance, while 10 percent are covered by Medicaid. Some three million persons are uninsured or indigent. About 700,000 persons receive hands-on care at County owned and operated facilities each year.

15) Lessons learned from conceptually similar projects include the following:

- a. Achieving the benefits of information technology is more about people and processes than technology. Many healthcare processes currently used in LAC will need to be redesigned. Simply automating existing processes could actually decrease safety, quality and efficiency, and increase costs;
- b. Information technology can be an important aid for improving the effectiveness of healthcare delivery, but it is only a tool and must be used properly to be effective;
- c. Developing an "HIT-savvy" healthcare culture that can optimize use of HIT will need to be engineered if it is to occur in a timely manner. The needed cultural change will not occur by happenstance;
- d. Successful regional health information organizations (RHIOs)/health information exchanges require a high degree of collaboration between the public and private sectors. A mechanism is needed to bring the various public and private organizations together in a way that rewards the collective effort and so that the benefits are shared by all the stakeholders;

- e. Government and philanthropic support can be critical for developing and implementing a HIMS, but a sustainable business model is essential for the long-term viability of any such system; and
- f. The RHIO must be able to control use of the data.

Additional information is being developed in this regard.

16) LANES will require strong community support and various types of technical assistance. This will likely require the establishment of a number of entities to facilitate communication with stakeholders and to obtain technical subject matter expertise. A proposed advisory committee structure is being developed by the CWG and will be presented in the near future.

17) Considerable work remains to be done to develop a strategic design for LANES, including developing a detailed description of the general characteristics and operating capabilities of the system; further assessment of lessons learned from other conceptually similar projects; designing a project oversight and management mechanism and structure; defining what additional components should be included in the system; and detailing a development roadmap, among other things.

18) The current projected timeline is to complete the strategic feasibility assessment and begin vetting it in July 2009, and if supported by the Board of Supervisors to complete the early planning for LANES by December 2009. Advanced planning would be completed by June 2010, with the intent to begin executing the plan in July 2010. The goal would be to have the system implemented and operating during 2014.

A number of variables outside the County's control could affect this projected timeline.

NEXT STEPS

1. The Board concurs with the efforts currently underway by the CEO to develop a strategy for the Los Angeles Network for Enhanced Services (LANES) Project which reflects the Board's instruction of April 7, 2009. The strategic feasibility assessment and related work should be completed as quickly as possible to optimize the chances of successfully competing for funds provided via the American Recovery and Reinvestment Act of 2009 and other sources.
2. The CEO should develop options for the Board's consideration for ensuring that the LANES Project will be managed and operated in a financially and otherwise prudent manner, including the establishment of a public-private partnership.

3. The CEO should initiate efforts to begin a dialogue for aligning LANES with the State Health Information Exchange Initiative that is being developed and other related efforts currently underway (e.g., the Cal-RHIO and California Telemedicine Network)

APPENDIX A

LOS ANGELES COUNTY HEALTH INFORMATION MANAGEMENT SYSTEM STRATEGIC FEASIBILITY ASSESSMENT CORE WORKING GROUP

Chief Executive Office

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* These individuals have been designated as leads for the respective departments: CEO-Operations; CEO-Health and Mental Health Services; Departments of Health Services, Mental Health and Public Health; and Chief Information Office.

APPENDIX B

Working Assumptions

In conceptualizing the design and operation of the Los Angeles Network for Enhanced Services (LANES) a number of assumptions are made, including the following:

General

- a. The Los Angeles County government (County) serves the entire population of Los Angeles County (LAC).
- b. Healthcare and public health will continue to be at the nexus of rapid changes in technology, government oversight and regulation, finance and process improvement.
- c. The population of LAC will continue to grow and be exceptionally diverse and mobile.
- d. LAC will continue to be uniquely important to the nation's economy and domestic security.
- e. Healthcare consumerism and interest in public health issues will continue to increase.
- f. There are many compelling reasons why LAC should develop a health information management system that will become even more compelling with time.
- g. A unique window of opportunity currently exists to garner financial and other support for developing and implementing a health information management system in LAC.

Public Health

- a. The County is responsible for ensuring public health services for all LAC residents.
- b. LAC is at higher risk of mass casualty, communicable disease and other public health emergencies than any other major metropolitan area in the United States.
- c. LAC has unique risks associated with domestic safety and security.

- d. The prevalence of chronic diseases will continue to rise and be of increasing public health and healthcare importance.

Healthcare

- a. The County has a particularly important role in ensuring access to healthcare services for poor and indigent persons.
- b. Healthcare practices will substantially change in coming years, increasingly moving towards the model of care espoused by the Institute of Medicine in 2001,² that includes the following characteristics:
 - a. Care is based on continuous healing relationships that are less facility-centric and based less on “visits” to the caregiver;
 - b. Care is increasingly customized according to patient needs and values;
 - c. The patient increasingly controls health care decision making;
 - d. Knowledge is shared and information freely flows to those who need it;
 - e. Decision making is evidence-based;
 - f. Safety is a fundamental system property;
 - g. The system of care and decision making are transparent;
 - h. Healthcare needs are anticipated and services are more pro-active;
 - i. Waste of time and resources are continuously decreased; and
 - j. Caregivers closely collaborate and cooperate with each other across the continuum of care and irrespective of payer source.
- c. Healthcare payers, both public and private, will increasingly link payment to evidence based care and improved performance, quality and outcomes of care.

² Institute of Medicine. Crossing the Quality Chasm: A Health System for the 21st Century. National Academy Press. 2001.

- d. The delivery of healthcare services will be increasingly provided by non-physician practitioners and in outpatient settings, including the home.³

Technology

- a. There will continue to be rapid development of information technology (IT).
- b. Healthcare-related technology will continue to rapidly advance, including new developments based on telemedicine, genomics and proteomics, nanotechnology and robotics.
- c. To achieve better functionality and cost-effectiveness, a more integrated approach to IT will be needed in the future, especially with regard to interoperability and standardization of data.
- d. Clinician and other end-users have to be involved in IT product specification and selection processes from the beginning.
- e. Greater standardization of IT-related processes is necessary to deliver near zero defect systems and services.

Finance

- a. The County will continue to operate in a highly cost-constrained environment.
- b. Healthcare costs will continue to rise disproportionate to the rise of the consumer price index and employee wages for the foreseeable future.
- c. Significant changes in healthcare financing and coverage as a result of national healthcare reform efforts are likely but are currently indeterminate in nature and timing.
- d. The cost of establishing a county-wide health information management system will be substantial, possibly in the range of \$200-300 million, and will require significant resources from both the public and private sectors.
- e. Significant funding is available from a number of sources, including various philanthropies and the American Recovery and Reinvestment Act of 2009, to develop and implement the system, if a strategy and plan can be developed in a timely manner.

³ Scott MK. Health Care Without the Doctor: How New Devices and Technologies Aid Clinicians and Consumers. Oakland, CA. California HealthCare Foundation. 2009.

- f. There will be ongoing operational costs of the LANES Project that will be a County responsibility.

Project Oversight and Management

- a. In view of the nature and scope of the LANES Project and the diversity of stakeholders, significant attention will need to be given to building consensus and trust; this will require a mechanism for providing stakeholders with a regular forum for addressing their concerns and issues.
- b. Given the complexity and enormity of the LANES Project there will inevitably be some unplanned occurrences and unintended consequences (both good and untoward), so such occurrences must be anticipated in the system's design and implementation.

LANES DISCUSSION DOC 062509