1275 K Street, NW, Suite 1000
Washington, DC 20005-4006
Phone: 202/789-1890
Fax: 202/789-1899
apicinfo@apic.org
www.apic.org

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Karen DeSalvo, MD, MPH, MSc
National Coordinator for Health Information Technology
U.S. Department of Health and Human Services
200 Independence Avenue S.W.
Washington, DC 20201

Dear Dr. DeSalvo:

The Association for Professionals in Infection Control and Epidemiology (APIC) appreciates the opportunity to provide comments on the Federal Health Information Technology (IT) Strategic Plan for 2015-2020. APIC is a nonprofit, multidisciplinary organization whose mission is to create a safer world through prevention of infection. We applaud the Federal Health IT vision that health information is accessible, as needed, to improve outcomes and protect the public. APIC believes that our mission aligns with the Federal Health IT mission to improve health, health care and reduce costs through information technology. Infection Preventionists (IPs) have been using data in a meaningful way for years and would greatly benefit from more efficient and integrated systems.

To improve patient outcomes and protect public health, our members collect, analyze, share, and utilize data as an integral component of our daily infection prevention efforts. We provide the following information for your thoughtful consideration.

Objective 1A: Increase the adoption and effective use of health IT products, systems, and services

The electronic health record (EHR) contains a wealth of information that impacts patient safety, but has not been widely integrated outside of acute care settings. IPs in all settings – acute care, long term care, behavioral health, ambulatory care, and public health – lead patient safety and performance improvement initiatives related to reduction of healthcare-associated infections (HAIs) and control of communicable diseases including emerging threats. Without the interoperability of systems across all domains of care, the advances made in prevention and control in one care setting can become lost as care transitions occur without communication of key information. A standardized sustainable EHR can provide for seamless transitions of care between facility to facility transfers, facility and public health, facility and healthcare provider, facility and families as well as healthcare providers and families. Information such as transmission prevention precautions, resistant organism colonization status, vaccination history and antibiotic utilization are often overlooked when communication relies on a verbal or paper-based dissemination of information. One example of a transition of care that proves challenging occurs when a patient's private physician is not affiliated with the inpatient care facility and information about inpatient care and treatment are not shared in a consistent manner at the time of discharge. Appropriate treatment and therapies such as antibiotics may be discontinued prematurely thereby causing harm to the patient due to an inadequately treated infection or development of a multidrug-resistant organism (MDRO).

With limited healthcare resources, IT departments are often understaffed. To date their focus has been on meeting meaningful use 1 and 2 measures. Despite the increasing number of infection prevention and control measures IPs have had to report to various regulatory and public health agencies, HAI surveillance has remained in stage 3 of meaningful use. As a result, EHRs have been developed or purchased without consideration for infection surveillance needs, and thereby lacking interoperability with the Centers for Disease Control and Prevention (CDC)'s National Healthcare Safety Network (NHSN), the system whose use is required by most federal and state agencies to comply with quality reporting programs. Therefore, infection prevention and control efforts have not benefited from the incentive program intended to encourage widespread adoption of health IT.

Recommendations/Endorsement of Strategies

- APIC supports the use of federal funds to encourage widespread use of certified health IT products outside of acute care settings. Lessons learned from meaningful use implementation in the acute care setting should be utilized to more rapidly implement HIT in non-acute care environments.

- Our members have experienced the impact of limited health IT support, which can delay implementation of hard wired improvement initiatives or prevention interventions. We support expansion of the HIT workforce.

- APIC supports the expansion of the Office of the National Coordinator (ONC) HIT Certification program for products useful across the care continuum. As key stakeholders embedded in both acute and non-acute healthcare settings, behavioral health, long-term care and public health, we have detailed knowledge of the proven clinical standards of care and practice used to identify and prevent HAIs and emerging infectious disease threats. IPs can provide valuable information in the clinical development and design of robust HIT systems aimed at implementing those standards.

Objective 2A: Enable individuals, providers, and public health entities to securely send, receive, find, and use electronic health information

Most states require the reporting of communicable diseases to public health departments. Currently this information must be communicated via inefficient methods like keystroke entry, fax or through the United States Postal Service. While there have been some efforts to improve these methods, they have largely met with institutional resistance due to concerns for privacy. IPs would benefit from a Health Insurance Portability and Accountability Act (HIPAA)-compliant HIT program that would seamlessly transmit microbiological data as well as the pertinent pre-defined patient data elements. This would allow more time for IPs to focus on staff and patient education and prevention efforts.

One example of a successful system is in place at the Illinois Department of Public Health. IDPH has benefited from collaboration with Medical Research Analytics and Informatics Alliance (MRAIA) and the Chicago CDC Epicenter that created an infection control tool called the XDRO registry.[1] The purpose of the registry is to provide improved surveillance of Carbapenem-Resistant Enterobacteriaceae (CRE), a highly resistant and potentially deadly organism, and improve interfacility communication. The end goal of the registry is to implement regional control of a MDRO like CRE, which the CDC refers to as a lethal

threat.[2] Currently, the registry allows acute and long-term care facilities to perform a query to identify patients infected or colonized with CRE. Once fully operational, the registry will push out an alert to acute and long-term care facilities when a patient with CRE is admitted. Of note, on the very first day of pilot testing in one organization, an alert was sent on a patient that the organization was not aware had CRE. The alert facilitated prompt identification of the patient and immediate initiation of contact isolation precautions, thereby limiting the possibility of transmission. Systems such as this will allow IPs to use HIT to work smarter.

Development of specific data sets to share patient information among providers, public health, and regulatory agencies would increase the consistency and quality of care delivery. An example of an EHR system that is able to be accessed by any facility or patient care provider is the EPIC® EHR. EPIC enables transparency among all healthcare providers and facilities caring for the patient. Such a standardized EHR system would provide a mechanism for interoperable health information sharing along with protection of privacy and security of critical health information.

The work recently described by the New York State Department of Public Health in its Hospital-Acquired Infection report[3] highlights the importance of data validation as a way to assure equitable comparisons of HAIs at both the hospital and state level. The validation was performed through remote access to the EHR through a Regional Health Information System. The approach saved travel time and money, allowing the health department to use its resources to provide additional training related to the misunderstanding of HAI definitions and therefore improved the accuracy of data entered into NHSN.

Recommendations/Endorsement of Strategies

- APIC fully supports allowing individuals, providers, public health departments and payers to find, securely exchange, and use vital health information to enhance care delivery, public health, and research as well as empower individuals to make informed choices regarding their health. Engaging partners such as the Illinois XDRO registry team and the New York State Department of Public Health can most certainly provide a benefit to ONC. Their respective lessons learned with development of a registry and a regional health information exchange will assist with timely development of such systems. Providing funding to allow for engagement with private partners will augment their work.

Objective 4B: Protect and promote public health and healthy, resilient communities

As acute care, as well as other care settings, become more efficient through the use of electronic health records to track, trend, aggregate, and analyze data, regulatory agencies and public health need to become more efficient at accepting the data and using it in a timely and meaningful way. Real time use of this epidemiologically important data is essential to identification of emerging threats and trends. Data mining systems utilizing free text natural language processing, as described by Shah et al,[4] is capable of searching on key words or phrases. The system can then electronically notify public health to track potential infectious disease threats during high profile public events. For example, regional and national influenza-like illness surveillance has proven successful in predicting influenza, but in most cases reporting is at least a week delayed. The recent experience with Ebola is an example of the need to respond quickly to new, unusual, or highly infectious disease threats. Established mechanisms to report supply inventory, equipment availability, and available beds to public health in a just-in-time fashion facilitates a coordinated response to an influx of infectious patients in a single organization

and/or a region. Antibiotic resistance has been identified as a major public health threat. Regional control of MDROs relies on early identification of case clusters and initiation of interventions. Many of the MDRO prevention and control efforts to date have been grant funded and therefore not widely disseminated, implemented, or standardized. MDRO registries such as the XDRO registry previously discussed can support communication of patients with MDROs that require timely initiation of isolation.

Recommendation/Endorsement of Strategies

- APIC supports public health IT capacity expansion and subsequent timely analysis of the data to manage emerging infectious disease threats as well as HAI clusters.
- APIC agrees that integrated health IT platforms support mitigation of public health threats.
- Information and data lead to knowledge. Knowledge will in turn lead to informed decisions during disasters or emergencies. Therefore, APIC supports public health systems that utilize health IT to ensure continuity of care and services.

In summary, to meet regulatory requirements and benefit from federal incentive programs, IPs have been required to electronically submit data to the NHSN since January 2011. This has primarily been without organizational IT support and has been achieved through manual data entry rather than through electronic data feeds. APIC believes that the burden of reporting cannot and should not prevent swift action to prevent and control HAIs or emerging infectious disease threats. Time is of the essence and time is a limited resource for IPs and infection prevention and control programs in institutions as well as public health settings. APIC members possess a unique skill set that is valuable to the public by: preventing HAIs and the development of MDROs, identifying and controlling new and emerging infectious disease threats, and partnering with our colleagues not only across the care continuum, but also in public health. An interoperable HIT will only improve the provision of healthcare at all levels. APIC welcomes the opportunity to work with ONC as this effort continues.

Sincerely,

Mary Lou Manning, PhD, CRNP, CIC, FAAN
2015 APIC President

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[1] XDRO registry Available at: https://www.xdro.org/ Accessed January 21, 2015.

[2] CDC Vital Signs. Stop Infections from Lethal CRE Germs Now. March 2013. Available at: http://www.cdc.gov/vitalsigns/hai/cre/ Accessed January 21, 2015.

[3] New York State Department of Public Health. Hospital-Acquired Infections New York State 2013. Available at: http://www.health.ny.gov/statistics/facilities/hospital/hospital_acquired_infections/2013/docs/hospital_acquired_infection.pdf Accessed January 21, 2015.

[4] Shah SC, Ruoro DP, Hallock MM, Trenholm GM, Gibbs GS, Silva JC, Waddell MJ. Clinical predictors for laboratory-confirmed influenza infections: Exploring case definitions for influenza-like illness. Infect Control Hosp Epi, Published online 13 January 2015.