Effective public health actions are built on a foundation of data, information and knowledge.

JPHIT integrates the expertise and reach of national associations to advance public health information system capabilities.

The Joint Public Health Informatics Taskforce:
Coordinating national actions to build tomorrow’s public health information capabilities today.

Optimizing Public Health with Information
As healthcare changes advance electronic health information, public health authorities strive to use those data for smarter and more effective public health action. A vital element for their success is system interoperability, which is deeply affected by information technology (IT) design and use.

The need for public health authorities to reach collective, consensus-based decisions on IT standards and federal policies is increasingly evident. A way to vet and recommend coordinated plans and guidelines for endorsement by senior health officials is crucial to improving public health with electronic health information.

“JPHIT is like a “choir” singing with one strong voice. It is composed of representatives from across the public health enterprise who strive for consensus on major public health informatics issues.”
- William “Bill” Hacker, MD, FAAP, CPE Commissioner, Kentucky Dept. for Public Health (ret.)

About JPHIT
JPHIT is a coalition of nine national public health associations that help U.S. governmental public health agencies build modern information systems across a spectrum of public health programs.

Co-chaired and staffed by ASTHO and NACCHO, JPHIT envisions a public health system optimizing health promotion and protection for residents though public health informatics. As a taskforce of associations, JPHIT works for this vision by identifying synergistic opportunities, building national consensus and ensuring a complete perspective on national issues that regard information technology development and use for public health.

Public health informatics is:

- The systematic application of knowledge about systems that capture, manage, analyze and use information to improve population health.
- An interdisciplinary profession.
- Practiced by every public health agency.
- Critical to ensuring that public health officials have the information needed for decision-making to protect population health.
Identifying synergies

JPHIT finds opportunities for national associations to combine efforts and enhance the impact of capacity building projects. To identify and facilitate synergistic opportunities, JPHIT:

- Meets every month to discuss national public health informatics issues and work with federal partners;
- Convenes face-to-face meetings among national thought and policy leaders regarding informatics; and
- Maintains strategic oversight on a portfolio of critical informatics activities.

Building consensus

JPHIT brings national associations and thought leaders together for a positive impact on national, state and local public health information technology (IT) standards and policy. JPHIT:

- Develops policy positions that articulate IT priorities shared across the U.S. public health system;
- Maintains an action agenda to help alert public health professionals of national activities that impact their informatics work; and
- Partners with key stakeholders to promote public health informatics and coordinate input about national IT policy.

Facilitating action

JPHIT expedites public health community input and action on matters that impact the accessibility, quality and use of public health information.

On the national stage, JPHIT has:

- Mobilized public health’s response to Meaningful Use (MU);
- Lead a national campaign to sustain MU Stage 3 rules for public health reporting;
- Promoted engagement among public health professionals in national standards development work; and
- Facilitated a national dialogue of public health information technology and interoperability needs.

“With JPHIT, policy makers get higher quality input and feedback from the public health community—you’ve automatically got the leadership and innovators around the table.”

- Mark W. (Marcus) Cheatham, PhD
  Health Officer, Mid-Michigan District

JPHIT.org

Contact
Charlie Ishikawa, MSPH
Executive Secretary of JPHIT
admin@jphit.org

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Revised: Tuesday, April 14, 2015
August 20, 2015

**Thomas Frieden, MD, MPH**
Director, U.S. Centers for Disease Control and Prevention
Tomfrieden@cdc.gov

**RE: National capability and capacity for electronic case reporting**

Dear Dr. Frieden,

As CMS and ONC consider changes in federal health information technology (Health IT) policy, we are writing on behalf of the Joint Public Health Informatics Taskforce (JPHIT)* to seek your assistance in increasing CDC resources for electronic case reporting, and request your continued leadership role in championing electronic case reporting.

Under-reporting of reportable conditions is a long-standing challenge leading to a gap in our ability to protect our nation’s health. Under-reporting blinds public health agencies to emerging threats, delays investigations and interventions, and ultimately enables the spread of organisms and agents leading to serious illnesses in vulnerable populations. The problem, essentially, is an information exchange challenge caused by incomplete knowledge of current reportable conditions, complexities in jurisdictional reporting procedures, or an absence of public health data standards.

Electronic case reporting (eCR) can dramatically boost reporting and public health surveillance capabilities by automating case information submission and exchange. Using an interoperable set of information technologies, eCR can ensure critical case communications among patients, healthcare providers, public health authorities, and those at risk of illness. If fully developed and properly used, the eCR infrastructure would help state, tribal, local, and territorial (STLT) public health agencies:

1. Detect public health threats with greater sensitivity and positive predictive value;

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* JPHIT is a coalition of nine national public health associations that help U.S. governmental public health agencies build modern information systems across a spectrum of public health programs. Together and with our partners, JPHIT identifies and strengthens synergies, builds consensus, and facilitates action nationwide for a public health system that optimizes health promotion and protection for residents through public health informatics.
2. Trace, characterize, and protect contacts or vulnerable populations with greater effectiveness;

3. Manage and investigate potential cases and outbreaks with greater speed and timeliness;
   a. Distribute emergency medical countermeasures with greater timeliness;
   b. Create and distribute guidelines for exposure, testing, and risk factor assessment to clinicians with greater fidelity and timeliness; and
   c. Improve clinical efficiency and reduce the burden of reporting and follow-up investigational work for clinicians, infection control practitioners, and their staff.

For the CDC, eCR can significantly advance Surveillance Strategy goals. Modernization in STLT processes to receive or access better reportable disease and condition data will consequently improve downstream notifications from STLT agencies to the CDC. The result will be more complete, accurate, and timely information for the National Notifiable Disease Surveillance System, more robust national surveillance, and an acceleration of disease prevention.

As you know, CMS recently proposed to make electronic public health case reporting a Meaningful Use measure by 2018, and ONC proposed to begin health IT certification for eCR in 2016. JPHIT believes that an inclusion of eCR in Meaningful Use programs will address the need for market and national incentives and thereby drive eCR tool development for electronic health record (EHR) data. The proposal alone has already galvanized the public health community to enhance the value of current CDC investments in case reporting technology development; e.g., CSTE’s Reportable Conditions Knowledge Management System and ASTHO’s Public Health Community Platform projects. This change in federal HIT policy, however, will not address the need to develop other eCR technologies and build the necessary capacity in public health agencies nationwide. For the nation to see meaningful change in public health, federal resources must be coordinated and focused on a long-term vision for systemic change in how all conditions of public health interest, from birth to death, are reported to and among public health agencies.

Dr. Frieden, to set a firm foundation for this national change in public health’s shared infrastructure, JPHIT believes that there are several immediate and short-term actions that your agency can take. Within the next 12 - 15 months, we urge you to please direct centers, offices and programs to:
A. Expand and coordinate financial resources from the CDC to states and local health departments. Potential approaches include:

i. Use the Epidemiology and Laboratory Capacity Cooperative Agreement grants for eCR technical and workforce development work (e.g., build new eCR data connections, and re-design reportable conditions surveillance and investigation processes);

ii. Use the Public Health Emergency Preparedness Cooperative Agreement grant to recondition response plans, procedures, and exercise and training programs for the effective use of eCR intelligence; and

iii. Use categorical funding mechanisms (e.g., grants for TB, STD, and HIV control and prevention) to support electronic submission/transfer of case data with eCR technologies.

B. Revise the CDC Surveillance Strategy and initiate an incident command management system to ramp-up CDC’s capacity for public health agencies to address the challenges of building an electronic case reporting surveillance information ecosystem;

C. Prioritize and fund APHL, ASTHO, and CSTE to build the nationwide technical infrastructure for complete eCR through continued development of the Public Health Community Platform and the Reportable Conditions Knowledge Management System (RCKMS). Complete eCR encompasses all steps of case reporting from initial detection of a possible case within an EHR through electronic completion of a case report form within an EHR and submission of the report to the appropriate jurisdiction;

D. Prioritize and fund cooperative work through CSTE to complete and maintain RCKMS, support a CSTE led effort to build a national consensus on the desired gains in sensitivity and positive predictive value for every reportable or nationally notifiable condition with a standardized case definition, and develop and maintain eCR standards.

Furthermore, given the gravity and scope of this issue, JPHIT believes the public health community needs your leadership to make eCR a reality. The vision and benefits of eCR must be championed from the the highest levels of government to build awareness and belief in the significance and benefits of eCR. Only your leadership can prioritize resource coordination for
technology development and capacity building across the CDC and within HHS, champion calls for additional public and philanthropic funds, and inspire long and lasting change.

Our nation is at a critical juncture for eCR. The availability of resources and strong support from public health leadership will determine whether or not the nation’s health will fully realize benefit from Health IT and EHR adoption. The information technologies to enable more intelligent, responsive, and effective public health action are within our reach, but public health agencies need the resources to develop and implement these tools to truly accelerate disease prevention.

The time is now to invest in eCR. JPHIT is committed to this issue and will work with all parties to make eCR a reality. With the expertise and resources of member, affiliate and partner associations, we will continue to facilitate the national synergies and policies for eCR, as well as marshal the public health community for action. We look forward to continuing and deepening our partnership with your agency and we are amenable to further discussion either by an in-person visit or teleconference. Please feel free to contact the Co-Chairs or Charlie Ishikawa, JPHIT Executive Secretary, with any questions or additional follow-up.

Sincerely,

Marcus Cheatham, PhD
JPHIT Co-Chair, NACCHO representative

Stephanie Mayfield Gibson, MD, FCAP
JPHIT Co-Chair, ASTHO Representative

JPHIT Partner organizations in support of this letter
- The Public Health Informatics Institute
Cc/

- Charlie Ishikawa, JPHIT Executive Secretary
- Chesley Richards, Office of Public Health Scientific Services
- Michael Iademarco, Center for Surveillance, Epidemiology and Laboratory Services
- Nedra Garrett, DHIS/CSELS
- Charles Rothwell, National Center for Health Statistics
- Walter Suarez, Chair, National Committee on Vital and Health Statistics
- Robin Ikeda, Office of Noncommunicable Diseases, Injury and Environmental Health
- Patrick Breysse, National Center for Environmental Health / ATSDR
- Rima Khabbaz, Office of Infectious Diseases
- Anne Schuchat, National Center for Immunization and Respiratory Diseases
- Beth Bell, National Center for Emerging and Zoonotic Infectious Diseases
- Jonathan Mermin, National Center for HIV, Viral Hepatitis, STD, and TB Prevention
- Judith Monroe, Office of State, Tribal, Local and Territorial Support
- Stephen Redd, Office of Public Health Preparedness and Response
- John Howard, National Institute for Occupational Safety and Health
- Karen DeSalvo, National Coordinator of Health Information Technology
- Bill Brand, Public Health Informatics Institute
Electronic Case Reporting

*JPHIT Informatics Topic Brief*

The purpose of this informatics topic brief is to describe the reportable disease and condition surveillance and control work that can be improved by a fully developed electronic case reporting (eCR) infrastructure.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Transaction Name/Label</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>∩</td>
<td>Pre-event Communication</td>
<td>Public health agencies request that healthcare providers heighten vigilance for emerging threats, and issue diagnostic and personal protective guidance.</td>
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<tr>
<td></td>
<td>Disease or Condition Report</td>
<td>Healthcare providers send public health agencies reportable information regarding disease or conditions in accordance with jurisdictional laws</td>
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<tr>
<td>#</td>
<td>Supplemental Clinical and Lab Information</td>
<td>Public health agencies gather from healthcare providers additional clinical information for public health investigational, surveillance, or assessment purposes.</td>
</tr>
<tr>
<td>#</td>
<td>Disease or Condition Notification</td>
<td>State public health agencies provide CDC with nationally notifiable disease or condition information.</td>
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<tr>
<td>U</td>
<td>Reportable Encounter</td>
<td>Patient seeks and receives health care for a reportable disease or condition.</td>
</tr>
<tr>
<td>U</td>
<td>Care and Disease Control Assurance</td>
<td>Public health agencies may work with cases to assure that appropriate health care is received, identify contacts, or investigate disease or condition etiology.</td>
</tr>
<tr>
<td>U</td>
<td>Implement Public Health Countermeasures</td>
<td>Public health agencies may work with at risk persons and populations to mitigate exposure or illness. Examples of countermeasures include: Quarantine, social distancing, mass prophylaxis administration, etc.</td>
</tr>
<tr>
<td></td>
<td>Personal Healthcare</td>
<td>DELETE</td>
</tr>
</tbody>
</table>

**Advantages and Opportunities of Electronic Case Reporting**

1. More complete case ascertainment/improved sensitivity
2. Potential to improve automated capture of data residing in EHRs but not in lab systems
   a. Patient address
   b. Other demographics and identifiers (MR #, Medicaid #, SSN etc.)
   c. Race
   d. Ethnicity
   e. Pregnancy
   f. Medications (esp important for STDs)
   g. Radiology results
   h. Ancillary lab results (negative results, CBC, CSF, LFTs etc.)
   i. Encounter dates (hospitalizations)
3. Reduce burden on ICPs and other reporters
4. Build connection to EHR systems and lay foundation for ability to retrieve additional structured data
5. Provide more incentive for RHIOs to improve data capture and more robust reporting capacity

Challenges or Tradeoffs
1. Lower specificity of reports (potentially introducing higher burden on DOHMH to filter out those that require action or meet case definition)
2. Huge challenges in defining the triggers for case reports
3. Technical obstacles in setting this up (who will bear this responsibility?)
4. Burden on health departments to build new systems to receive, parse, filter, integrate data