Health IT Policy Committee
A Public Advisory Body on Health Information Technology to the National Coordinator for Health IT

February 8, 2011

David Blumenthal, MD, MPP
National Coordinator for Health Information Technology
Department of Health and Human Services
200 Independence Avenue, S.W.
Washington, DC 20201

Dear Dr. Blumenthal:

The HIT Policy Committee (Committee) gave the following broad charge to the Privacy & Security Tiger Team (Tiger Team):

> **Broad Charge for the Privacy & Security Tiger Team**:
> The Tiger Team is charged with making short-term and long-term recommendations to the Health Information Technology Policy Committee (HITPC) on privacy and security policies and practices that will help build public trust in health information technology and electronic HIE, and enable their appropriate use to improve healthcare quality and efficiency, particularly as related to ARRA and the Affordable Care Act (ACA) which mandates a number of duties to the ONC relative to privacy and security.

Since December 2010, the Tiger Team conducted a public hearing and a number of public meetings regarding patient matching. On February 2, 2011, the Tiger Team reported and discussed its findings with the Committee, which were subsequently approved.

This letter provides recommendations to the Department of Health and Human Services (HHS) on the patient matching issue.

Background and Discussion

An important strategic goal of the Office of the National Coordinator (ONC) is to build public trust and participation in health information technology (IT) and electronic health information exchange by incorporating effective privacy and security into every phase of health IT development, adoption, and use. To this end, the Tiger Team held a hearing on December 9, 2010, on matching patients/individuals accurately to their information. Accurately matching individuals or patients to their health information has a number of benefits, including the potential for improved patient outcomes, patient safety, greater efficiency, improved fraud detection, promoting data integrity, and reduced inappropriate data exposure.

However, achieving greater accuracy in matching is a challenge. Challenges include (but are not limited to) the following:

- In most high volume environments, it is not possible to achieve perfection in matching. Although improvement is both desirable and achievable, some percentage of false positives and/or false negatives is inevitable.
- Inaccurate matching is not just a technology problem – there is a significant human component (for example, correct and complete data entry, taking time to check current information with patients, workflow issues, etc.).
- Poor data quality (both accuracy and completeness) significantly inhibits the ability to accurately match patients to their information.
- There is little research on best practices for matching.
- There is no one-size-fits-all solution – acceptable margins of error (false positives and/or false negatives) vary based on the purposes for accessing or disclosing information, populations and settings.
- Data linking challenges increase as data gets further removed from the source, and when more sources of data are involved.
- Universal identifiers for patients/individuals could be helpful but are **not** a panacea.

In addition to the benefits and challenges of accurate matching described above, the Tiger Team heard testimony on recommendations for improving matching accuracy. For example, the Team heard testimony about how the consistent expression of data fields used in matching could help improve accuracy. The Team also heard testimony about the need to create a "culture of improvement" with respect to accuracy in matching, and to more consistently evaluate and improve transparency of the accuracy of various matching strategies (both with respect to matching algorithms as well as human factors such as workflow). Testifiers also emphasized the need to develop and disseminate best practices in matching, and evolve to consistent standards of accountability for accurate matching. Testifiers also urged us to consider the role of the individual consumer or patient in improving matching accuracy and the need for policies and procedures to propagate corrections to data.

RECOMMENDATIONS ON PATIENT MATCHING

The following recommendations apply to accurately matching patients/individuals to their health information. Consistent with the December 9th testimony, the Tiger Team has recommendations in the following five categories:

1. Standardized formats for demographic data fields
2. Internally evaluating matching accuracy
3. Accountability
4. Developing, promoting and disseminating best practices
5. Supporting the role of the individual/patient

NOTE: The issue of how to propagate corrections also arose at the hearing, and the Tiger Team will take this up in subsequent meetings.

1. Standardized Formats for Demographic Data Fields

The use of any particular data field should <u>not</u> be required for matching, as choice of fields used to match depends on a number of factors, including the purpose of the data access. However, when a data field is used to match, a standardized format will help increase accuracy through consistent representation. Therefore:

    a. The HIT Standards Committee should propose standard formats for data fields that are commonly used in matching patients to their data.

        -Patient demographic data fields are commonly used for patient matching (for example, name, DOB, zip, address, and gender); standard formats for a core set of these fields would be helpful (for example, we heard testimony that establishing a common format for patient name (such as the required use of middle name) could significantly improve matching.

    b. EHRs should be tested and certified for interoperability re: standard data fields – from data entry through data transfer.
    c. Standards Committee should also develop recommendations on how entities handle situations when information is not available to complete a data field & how systems should represent missing data when it is exchanged (such as in a CCD/CCR).
    d. Standards Committee should consider whether a USPS validation/normalization program would be beneficial to improved matching accuracy.

2. Internally Evaluating Matching Accuracy

    a. Health care organizations/entities should evaluate the effectiveness of their matching strategies in achieving matching accuracy on an ongoing basis.
        -This should include individual providers and institutions as well as HIEs

    b. Organizations/entities should use such evaluations to internally improve matching accuracy.

3. Accountability

    a. Matching accuracy should be enforced through NHIN/HIE governance of participating organizations.

    b. HIEs should be required to establish programs to ensure that acceptable levels of matching accuracy are maintained by its participants. Such programs should:
        i. Be appropriate for the populations served by the HIE, and the purposes for which data can be accessed in or via the HIE;
        ii. Include tracking of who has accessed a patient's information;
        iii. Require participants that do not meet standards to undertake remedial action; and
        iv. Be consistent with industry best practices.

    c. HIEs also should have policies on how participants must respond when information is incorrectly matched.

4. **Developing, Promoting and Disseminating Best Practices**

    a. ONC should establish a program or programs to develop and disseminate best practices in improving data capture and matching accuracy. Such program or programs should be done in close partnership with industry stakeholders and research institutions. For example, such program or programs should:
        i. Gather and disseminate evidence about "what works";
        ii. Establish programs for transparency re: the efficacy of matching algorithms;
        iii. Pilot and test accuracy of matching strategies;
        iv. Where funds are available, fund further development of innovative matching strategies;
        v. Develop and promulgate best practices for propagating record corrections.

5. **Supporting the role of the individual/patient**

    a. As individuals and patients can play an important role in identifying errors in their health and demographic information, the Tiger Team supports the efforts of the Meaningful Use Workgroup and the HIT Policy Committee to increase the access of individuals to their health information.

    b. Tiger Team supports establishment of audit trails that facilitate patients seeing where their information has been accessed through exchanges such as HIEs.

    c. Individuals and patients should have a simple process for reporting corrections to their information.

        If an HIE is required via business associate or participation agreement to provide patients with access to their health information, they should be required to have policies to support such access to data and requests for corrections

We appreciate the opportunity to provide these recommendations on patient matching, and look forward to discussing next steps.

Sincerely yours,

/Paul Tang/

Paul Tang
Vice Chair, HIT Policy Committee

cc: HIT Standards Committee, Jonathan Perlin and John Halamka, Chair/Co-Chair