THE PEW CHARITABLE TRUSTS

REBECCA W. RIMEL PRESIDENT & CEO
2005 Market Street, Suite 2800
Philadelphia, PA 19103-7077
215.575.4700 Phone
901 E Street, NW, 10th Floor
Washington, DC 20004
rrimel@pewtrusts.org www.pewtrusts.org

August 1, 2017

Secretary David J. Shulkin, M.D.
Secretary of Veterans Affairs
Department of Veterans Affairs
810 Vermont Avenue, NW
Washington, DC 20420

Dear Secretary Shulkin:

On behalf of The Pew Charitable Trusts, I want to thank you for your leadership at the Department of Veteran Affairs (VA). I am writing on behalf of Pew's health information technology (IT) initiative in hopes that we can contribute to the VA's commitment to serving our nation's veterans and striving for the highest quality in, and continuous improvement of, their healthcare.

As the VA enhances the health IT used at its facilities, advances in the interoperable exchange of health data and patient safety can improve quality and seamless care for veterans. We encourage the VA to prioritize these issues as the agency transitions to a commercial-off-the-shelf (COTS) electronic health record (EHR) system and embarks on other efforts to upgrade its health IT systems.

The Pew Charitable Trusts is a global research and public policy organization with a number of initiatives focused on improving the quality and safety of patient care, facilitating the development of new medical products, and reducing costs. Pew's health IT initiative concentrates on advancing the interoperable exchange of healthcare data and improving the safety of EHRs. The VA's health IT investments are an opportunity to make progress in both areas.

The VA has indicated that the agency's health IT enhancements, among other things, will focus on ensuring that patients' records can be electronically exchanged with the Department of Defense (DoD), where veterans have records, without manual entry of information.[1] That information sharing is essential to successfully implement your vision of seamless care, which is the ability for clinicians to have the data they need to coordinate how they treat veterans. Seamless data exchange between the VA and the DoD is particularly important as the agencies share more medical information than any other public or private health care organizations in the country.[2] In addition, as veterans seek care outside the VA in private practices and from specialists, the exchange of their information to those facilities and back into the VA system is similarly important for seamless care. Moreover, as health IT is used to coordinate and improve care regardless of where veterans obtain medical treatments, unexpected safety challenges can emerge.

Patient matching, standards critical to seamless care

Seamless care for veterans relies on extensive sharing of health data to reconcile which medications the patient currently uses, graph blood pressure over time, and countless other ways in which clinicians can use information to improve care. This type of seamless care—referred to as interoperability—faces two key obstacles: patient matching and data standards.[3]

First, patient matching is the ability to link a patient with the correct health record held in different facilities, including within the DoD, the VA, or private practices. Researchers have found that match rates between facilities can be as low as 50 percent.[4] For veterans who require care outside the VA system, enhanced patient matching rates across the country are essential so that patients and their clinicians have the data they need to make informed decisions.

To achieve seamless care for veterans, health IT systems should be able to accurately match records wherever they are located. As part of Pew's focus to advance patient matching on a national scale, we are examining multiple approaches—including the use of unique identifiers (i.e. biometrics), enhanced use of demographic data elements, and patient-led solutions. We encourage the VA to study and prioritize enhancements to patient matching as part of its health IT strategy, and coordinate with the private sector. Such prioritization may include regular analysis or publication of the match rates, or setting requirements for accurate match rates (i.e. the percent of records that must be automatically matched without human intervention) between the VA and the DoD or private practices.

Second, enhanced use of standards for clinical data elements—such as vital signs, medications, or test results—can also advance seamless care. EHRs collect vast amounts of clinical information that can be used to improve care coordination. However, challenges exist for the use of that information because different codes may be used for the same clinical concepts or exchanged with varying levels of information (e.g. sending a drug name without indicating the dosage).

For example, the Government Accountability Office recently found that, while both the VA and the DoD update medication information according to national standards every month, they may do so at different times.[5] This discrepancy can hinder the ability of clinicians to check drug-drug interactions. As a result, the exchange and use of veterans' medication information can require manual review instead of an automated electronic process to promote seamless and safe care.

Enhanced use of standards can also aid computerized clinical decision support for physicians by, for example, allowing the comparison of lab tests from different care settings. Having the data accessible can also support process interoperability, which refers to the operations that occur to support patient care, such as handoffs between clinicians when transferring care to outside of or back into the VA system.

As part of its seamless care strategy, the VA should outline how it intends to advance the use of standards. This may include identifying data elements and associated standards that should be prioritized, or other solutions wherein the VA, DoD, and leaders in the private sector agree on how to communicate information so that it can be used to improve care for veterans.

Safety is critical to prevent avoidable harm

Regardless of where veterans seek care, health IT design is crucial for preventing medical errors. Factors that influence usability include EHR design and layout; fit within clinician workflow; and customized changes that introduce risks. Documented errors have resulted from unclear layouts, patient identification errors, order overwrites, missing laboratory test results, and other factors.

The VA system can reduce health IT-related medical errors by focusing on enhanced testing of EHRs and collaboration with the private sector. EHR developers currently test their products to gain certification according to criteria set by the Office of the National Coordinator for Health IT (ONC).[6] That testing often focuses on whether the technology can perform certain functions (such as medication orders), but not whether it can do so safely (e.g. ensure the right drug dose).[7] To further safety, the VA can ensure that the health IT implemented is tested for safety throughout its life cycle—including during development and after implementation in a facility. Several examples exist as to how health IT can be evaluated for safety. Among them:

- The Association for the Advancement of Medical Instrumentation (AAMI) is developing standards on usability to evaluate and improve the safety of EHRs throughout their lifecycle.[8] AAMI's work—in which the VA participates—will provide a framework for how to assess the safety of health IT across the product life cycle, including by vendors during development and after implementation in healthcare facilities to reduce risk associated with site-specific customization or workflow-related issues.
- The Leapfrog Group released a standard to test Computerized Provider Order Entry (CPOE) tools that simulate patients receiving medications to evaluate patient safety problems with EHRs. More than 1400 hospitals used this tool in 2015, and version 3.0 was recently released.[9]
- Finally, the ONC has released guides (SAFER Guides)—which were developed in collaboration with VA researchers—that contain checklists and best practices on how to analyze the safety of EHRs. These guides can present examples on ways that EHRs can be tested for safety throughout development.[10]

The VA can also advance collaboration on health IT safety with its federal partners—including the DoD and the ONC—and the private sector where veterans may seek care. Since 2012, experts have recommended the creation of a health IT safety collaborative where the public and private sectors could identify common health IT safety challenges and work together on solutions.[11] The VA has operated its own internal collaborative—a division called Informatics Patient Safety—that has also worked with the agency's National Center for Patient Safety.[12] However, seamless care for veterans should also improve safety in the other environments where a patient seeks care—including private facilities. In addition, as the VA transitions to a COTS product, the lessons learned on implementation of these systems in the private sector can aid the VA's implementation (i.e. if the VA is considering certain customizations, the agency could learn from other healthcare facilities if similar modifications led to safety concerns). Working with the ONC, the VA could help establish or fund such a collaborative to foster health IT safety—both as it implements a health IT strategy and to enhance safety when veterans seek care outside of the VA system.

By prioritizing ways to enhance patient matching, the standardization of data, and EHR usability, veterans can have assurances that they are receiving high quality, seamless, and safe care.

As part of this process, the VA should make public how it addresses and incorporates these issues into its health IT strategy—including through COTS technology. By doing so, private facilities where veterans seek care can implement similar practices to ensure coordinated and safe care. These practices can serve as an example to the private sector on how healthcare providers and health IT vendors can deliver seamless, safe care.

Secretary Shulkin, thank you for allowing me to share this information with you in hopes of better serving the veteran community. My colleague, Ben Moscovitch, manager, health information technology, will reach out to your office in case he can be of further assistance in this effort. Should your staff wish to contact him, he is available at (202) 540-6333 or bmoscovitch@pewtrusts.org.

Once again, thank you for considering our comments. I wish you every success in your commitment to improve the VA's health IT and to provide for the wellbeing of our nation's veterans.

Sincerely,

Rebecca W. Rimel
President and CEO
The Pew Charitable Trusts

cc: The Honorable Johnny Isakson, Chairman
Senate Committee on Veterans' Affairs

The Honorable Phil Roe, M.D., Chairman
House Committee on Veterans' Affairs

The Honorable Jon Tester, Ranking Member
Senate Committee on Veterans' Affairs

The Honorable Tim Walz, Ranking Member
House Committee on Veterans' Affairs

---

[1] U.S. Department of Veterans Affairs, "VA announces decision on next-generation Electronic Health Record," press release, (June 5, 2017), https://www.va.gov/opa/pressrel/pressrelease.cfm?id=2914.

[2] Hearings on "Budget Request For Fiscal Year 2018, Before the Senate Appropriation Committee Subcommittee on Military Construction, Veterans Affairs, and Related Agencies, 115th Cong. (2017) – statement of the Honorable David J. Shulkin, M.D., Secretary of Veterans Affairs, https://www.appropriations.senate.gov/imo/media/doc/062117-Shulkin-Testimony.pdf

[3] The Pew Charitable Trusts, "Electronic Health: Patient Matching and Data Standardization Remain Top Challenges," (Nov. 30, 2016), http://www.pewtrusts.org/en/research-and-analysis/fact-sheets/2016/11/electronic-health-records-patient-matching-and-data-standardization-remain-top-challenges.

[4] Genevieve Morris et al., "Patient Identification and Matching Final Report," (Feb. 7, 2014), https://www.healthit.gov/sites/default/files/patient_identification_matching_final_report.pdf.

[5] U.S. Government Accountability Office, "Pharmacy System Needs Additional Capabilities for Viewing, Exchanging, and Using Data to Better Serve Veterans," (June 2017), https://www.gao.gov/assets/690/685260.pdf.

[6] Office of the National Coordinator for Health Information Technology, "2015 Edition Test Method," (last updated Sept. 9, 2016), https://www.healthit.gov/policy-researchers-implementers/2015-edition-test-method.

[7] The Pew Charitable Trusts, "How to Improve Electronic Health Record Usability and Patient Safety," (Sept. 2016), http://www.pewtrusts.org/~/media/assets/2016/08/usability_conference_fs.pdf.

[8] Association for the Advancement of Medical Instrumentation, "AAMI Launches Health IT Standards Initiative," (Aug. 2015), http://www.aami.org/productspublications/articledetail.aspx?ItemNumber=2663.

[9] Juan D. Chapparo et al., "National trends in safety performance of electronic health record systems in children's hospitals," *Journal of the American Medical Informatics Association* (2017) 24 (2): 268-274. https://doi.org/10.1093/jamia/ocw134

[10] Andrew Gettinger, Thomas Mason, and Rebecca Freeman, "Making Health IT Safer and Easier to Use in Real Life – Practical Tools for Health Care Providers," (March 21, 2017), https://www.healthit.gov/buzz-blog/health-it-safety/making-health-safer-easier-real-life-practical-tools-health-care-providers/.

[11] Office of the National Coordinator for Health Information Technology, "Health IT Safety Center Road Map Task Force," (April 2015), http://www.healthitsafety.org/uploads/4/3/6/4/43647387/health_it_safety_center_scope_final.pdf.

[12] Health IT Policy Committee, "HIT Policy Committee Safety Task Force Transcript," (May 29, 2014), https://www.healthit.gov/FACAS/sites/faca/files/STF_Transcript_Final_2014-05-29.pdf.