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The Honorable Patty Murray
Chairman
Senate Committee on Health, Education,
Labor and Pensions (HELP)
U.S. Senate
Washington, D.C. 20510

The Honorable Richard Burr
Ranking Member
Senate Committee on Health, Education,
Labor and Pensions (HELP)
U.S. Senate
Washington, D.C. 20510

Dear Chairman Murray and Ranking Member Burr,

Thank you for the opportunity to provide feedback on ways to better prepare for future public health emergencies, respond to lessons learned during the COVID-19 pandemic, improve the nation's public health infrastructure, and expand health capabilities at the local, state, territorial, Tribal, and federal levels. As we enter the second year of health crises that have exposed deep gaps in our public health infrastructure, it will be imperative for Congress to work together to address these deficiencies in long-term, sustainable ways that ensure the country and its health systems can respond to future public health threats and leverage existing capabilities to address on-going systemic health issues.

The Pew Charitable Trusts is a non-profit research and policy organization with several initiatives focused on improving the quality and safety of patient care. Pew's health information technology initiative focuses on advancing the interoperable exchange of health data and improving the safe use of electronic health records (EHRs).

Throughout the public health emergency, health agencies have struggled to adequately capture and report essential data elements needed to both respond to the pandemic and track the spread of other diseases, especially in vulnerable and underserved populations. Epidemiologists, for example, have indicated that patients' contact information is missing in more than half of COVID-19 lab results, while demographic information, such as race and ethnicity, is absent in 85% of the reports.[1] Manual reporting—or the non-electronic transmission of information through modalities like fax—also results in wide-spread under-reporting, leaving officials at the state and federal level to make key decisions without complete information such as the location of a disease hot-spot. The Centers for Disease Control and Prevention (CDC) estimates that, in some circumstances, as few as 1 in 10 reportable cases are sent to public health agencies after the medical encounter.[2] Additionally, from early COVID vaccine reporting, data on race and ethnicity is present in only 51.9% of cases.[3]

Our comments will specifically focus on the following question posed by the committee: *What are strategies for strengthening and modernizing federal public health and medical*

preparedness and response systems and programs, including infrastructure, to better support states, localities, and Tribes?

The foundation of a strong federal public health preparedness and response system is adequate data to keep communities healthy and safe. Without adequate data, public health agencies may be unable to perform vital outreach activities, including contact tracing and disease mapping. Pew recommends the following:

- Public health data exchange capability should be a requirement for EHRs, and the Office of the National Coordinator for Health Information Technology (ONC), working through the Public Health Data Systems Task Force, should set standards to ensure that complete, quality data is consistently sent to public health agencies;
- Health care providers should be incentivized to adopt data exchange capabilities through payment programs, such as those developed by the Centers for Medicare & Medicaid Services (CMS);
- Use of the U.S. Postal Service (USPS) address standard should be required for EHRs to enhance patient matching across different systems; and,
- ONC should guide improvements to state and local public health infrastructure through the use of standards.

ONC should require public health data exchange capabilities as a component of EHR certification

Despite the $30 billion investment in EHRs over the past decade, challenges remain widespread, particularly when it comes to the reliance on sharing information manually or difficulties with data exchange among different systems—all of which can result in incomplete data. As a foundational step to improving public health data exchange and infrastructure, policy levers within ONC should be utilized to ensure all EHRs have the functionality in place for electronic reporting to public health agencies.

Currently, federal regulations from ONC include optional components for EHRs used in doctors' offices and hospitals to send data to public health agencies for four use cases—lab reporting, case reporting, syndromic surveillance, and vaccination data. Given the importance of all four of these use cases to response efforts for current and future health emergencies, these optional capabilities should be required as part of base certification for EHRs so that all systems are able to communicate with state and local public health agencies. Specifically, ONC should update EHR certification provisions in two ways:

(1) Functionality for electronic lab reporting, case reporting, syndromic surveillance, and immunization registries should be mandatory—not optional—as part of the base definition for EHR certification. This change would ensure that all EHRs obtaining federal certification have these capabilities.
(2) ONC should require adherence to the specific consensus-based standards and implementation guides developed and/or supported by the agency's Public Health Data Systems Task Force. Adherence to standards would make it easier for public

health agencies to prepare their own systems to accommodate a highly standardized report that contains all the necessary data.[4] Following these standards would also help ensure that EHRs can use automated triggers to send reports.[5]

Requiring electronic reporting for public health data as part of EHR certification—as well as ensuring the requirements include adherence to standards—will guarantee that public health agencies get the data they need, in a standard way, from health care providers and facilities in real time.

ONC should collaborate with CMS to encourage provider adoption of electronic reporting

To date, health care providers have not prioritized electronic public health reporting on their own, resulting in significant data gaps. For example, in 2018, immunization registries captured only 56% of the adult population.[6] Furthermore, research shows that over 30% of emergency departments across the country do not send syndromic surveillance data to the CDC, making it challenging to create the national surveillance picture needed to identify widespread threats.[7] Addressing this requires an all-hands federal approach, including through the use of programs like the Promoting Interoperability program and conditions of participation in Medicare. CMS, in a recently proposed rule, rightly recognized the benefits of this approach by requiring providers to electronically report all lab reporting, case reporting, syndromic surveillance, and immunization registry events to public health agencies.

This is a step in the right direction, and should be finalized quickly; however, it will be incumbent upon ONC to ensure that any CMS requirement is mirrored across both agencies. ONC can accomplish this by updating EHR certification requirements to ensure that any action to incentivize electronic reporting through CMS payment programs is supported by ONC certified technology that has the functionality to send electronic reports. Taking this dual approach will not only address provider barriers for reporting health data, but also address functionality gaps currently faced by EHRs.

ONC should require USPS address standard to improve patient matching amid the COVID-19 pandemic

The COVID-19 pandemic has exacerbated longstanding challenges with accurately linking an individual's records from multiple places of care and different systems—also known as patient matching. For example, as with other national vaccination efforts, public health professionals and clinicians rely on immunization registries to track whether someone has obtained a COVID-19 vaccine. Their ability to do so relies on being able to locate the right patient record through the use of demographic data—such as name, date of birth, and address. However, a variety of factors, including typos and information that changes over time, can make identifying the correct record challenging.

Furthermore, research shows that phone numbers are often not sent from laboratories to public health authorities, and when they are included, the numbers often refer to an ordering physician and not a patient.[8] This not only complicates reaching the patient and conducting contact tracing, but it also makes matching across lab systems and other systems—like EHRs and public health registries—challenging. Similarly, patients' addresses are not required data to collect in lab

orders and share in messages to public health agencies, leaving minimal data to use for patient matching.

Requiring patient addresses to be collected and shared, as well as formatting them to the USPS standard, will provide another reliable data element for matching patients across systems and with immunization registries. For example, use of the USPS format (which indicates, for example, appropriate street suffixes) has shown to improve the accuracy of matching records by approximately 3%, which could result in tens of thousands of additional correct record linkages per day.[9] An organization with a match rate of 85% could see its unlinked records reduced by 20% with standardization of address alone.

In the past, ONC stated that the implementation of the available USPS standard would create a burden on provider organizations. However, vendors would be responsible for developing and implementing the standard within health IT systems—not providers. Additionally, USPS operates a free service to conduct this standardization today that is used widely by the shipping industry. Were this service opened up and made available for use in health care, the financial burden of implementation would be greatly reduced.

Many state immunization registries (and the information systems they use) have already recognized the value of using the USPS address format for patient matching, and pay to use a shared service to conduct this standardization and validation.[10] They experienced improvements in patient matching and de-duplication within their systems; they also saw, on average, a 12% increase in mail deliverability, which could meaningfully improve efforts to conduct community outreach.[11]

Despite USPS' address standardization web tools being available to online retailers and e-commerce at no cost, the agency's terms and conditions restrict its use only to shipping purposes. As a result, health organizations cannot use it for patient safety and pandemic response. ONC should require the USPS address standard for all health IT systems, and coordinate with USPS to make their technology available for free for use in health care.

The effectiveness of immunization campaigns relies, in part, on the ability of health care professionals to locate the right patient's record. Many immunization registries are already using the USPS standard; if all health IT systems did the same, the reliability of finding and matching patient records would increase.

ONC should be central to upgrading public health infrastructure

Public health response would be better supported and more efficient with access to standard, complete data. As ONC has published requirements for EHRs to address issues with data exchange, their existing work should be used as a guidepost for creating similar standards for public health infrastructure. As state and local public health agencies upgrade or adopt new systems, standards for their infrastructure can help ensure that capabilities for data exchange and integration are core functionalities within public health IT systems. Further, due to the variation across states in data exchange policies and systems, national standards can help ensure foundational capabilities are in place, which can help with cross-jurisdictional exchange. The

Public Health Data Systems Task Force, as part of ONC's Health Information Technology Advisory Committee, can help create standards for both EHRs and public health IT systems that are feasible and inclusive, to ensure state and local public health agencies have the data they need and the system capabilities to act on that information.

Conclusion

Gaps in the data available to public health authorities have hindered important actions that could help the country emerge from the COVID-19 pandemic, save lives, and restart the economy–as well as be better prepared for a future public health crisis. Policy can drive important changes and close gaps in public health data exchange through discrete actions:

- ONC should require public health data exchange capabilities as a component of EHR certification, and, through the Public Health Data Systems Task Force, should develop and set standards for public health data exchange;
- ONC should mirror CMS efforts to require electronic data exchange capabilities;
- ONC should require the USPS address standard be utilized in in EHRs to enhance patient matching across different systems; and,
- ONC should assist state and local efforts to modernize public health infrastructure to better assess and act on incoming data.

In the midst of a pandemic, accurate and complete health data that is matched to the right patient and made available to public health officials are all the more important. ONC, working with public health stakeholders and other federal agencies, can take swift and decisive action to make immediate improvements to public health data exchange. These actions will have far-reaching effects on patients across the country, and will give providers and public health officials the information they need to provide the best course of care and keep communities healthy.

Thank you for the opportunity to provide comments and should you have any questions or if we can be of assistance, please contact Elise Ackley at eackley@pewtrusts.org or (202) 540-6464.

Sincerely,

Molly Murray
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The Pew Charitable Trusts

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