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To: Trusted Exchange Framework and Common Agreement (TEFCA) Recognized Coordinating Entity (RCE)

Re: Qualified Health Information Networks (QHINs) Technical Framework (QTF)

The QTF defines the operations and processes of QHIN-to-QHIN data exchange. Such standards will ensure that data for specific patients will be exchanged safely, securely, and accurately within and across these networks.

A critical factor to ensuring data is exchanged and linked to the correct patient record is patient matching, or the ability to accurately align each individual's records from multiple sources. Patient matching remains a perennial problem in health care; a report commissioned by the Office of the National Coordinator for Health Information Technology (ONC) found that up to half of the information exchanges made by health care organizations may fail to accurately match records for the same patient.<sup>1</sup> Ineffective patient matching can have patient safety and cost ramifications, including delayed or inappropriate care and potential medical errors if information used for treatment is missing or inaccurate. Recognizing this barrier to coordinate care, the QTF includes requirements that will aid in more accurate patient matching.

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).

Pew conducted research on ways to address patient matching deficits, and found that using additional data elements for patient matching across health IT systems, as well as standardizing how these demographic data elements are entered and depicted, can improve match rates. We support the inclusion of "QTF-033" that requires QHINs to share complete demographic data. Additional demographic elements provide more data to support enhanced patient matching.

Pew's research found standardizing specific data elements can improve match rates. Use of the U.S. Postal Service (USPS) format for address (which indicates, for example, appropriate street suffixes) can improve the accuracy of matching records by approximately 3%, which could result in tens of thousands of additional correct record linkages per day.<sup>2</sup> An organization with a match rate of 85%, for example, could see its unlinked records reduced by 20% just by standardizing addresses.

Pew strongly supports the requirement in "QTF-036" that requires that data for address fields be converted to the USPS address standard, if it is not already in that format. Requiring this standard will ensure that all QHINs use the same approach to documenting addresses, enhancing the likelihood of a record match.

Lastly, Pew suggests that the RCE consider amending "QTF-042." Currently, QTF-042 recommends the use of the United States Core Data for Interoperability (USCDI)—the standard data set that EHRs must be able to share—and specifically version 1. However, as of July 2021, USCDI version 2 is available, and includes additional data elements that could aid in patient care; these includes social determinants of health, like housing status or food insecurity, and diagnostic imaging reports. Further, ONC plans to update USCDI annually to include additional relevant data elements. As such, Pew urges the QTF instead

recommend the exchange of the most current version of USCDI, rather than version 1. Such a recommendation will ensure QHINs send and receive the most complete standard data set available.

The requirement for sharing all available demographic data elements, and the conformance to the USPS address standard, will improve patient matching. Pew applauds the inclusion of those updates in the framework. Requiring the most current version of USCDI, meanwhile, will ensure that QHINs contain the most complete data set available, enhancing care coordination and providing access to a more complete patient record.

Thank you for this important step forward to improve patient matching. Should you have any questions or if we can be of assistance, please contact me at [mmurray@pewtrusts.org](mailto:mmurray@pewtrusts.org) or 202-770-5376.



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The Pew Charitable Trusts

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<sup>1</sup> Genevieve Morris et al., “Patient Identification and Matching Final Report” (2014), [https://www.healthit.gov/sites/default/files/patient\\_identification\\_matching\\_final\\_report.pdf](https://www.healthit.gov/sites/default/files/patient_identification_matching_final_report.pdf).

<sup>2</sup> S.J. Grannis et al., “Evaluating the Effect of Data Standardization and Validation on Patient Matching Accuracy,” *Journal of the American Medical Informatics Association* 26, no. 5 (2019): 447–56, <https://doi.org/10.1093/jamia/ocy191>.