

What is Interoperability?

Interoperability of electronic health records (EHRs) is a critical component to facilitate the exchange of patient information across settings of care and support the transformation of health care delivery by making patient information readily available to patients and providers at the point of care. A generally accepted definition of interoperability comes from the Institute for Electrical and Electronics Engineering (IEEE), which defines interoperability as, “the ability of two or more systems or components to exchange information and to use the information that has been exchanged.”¹ Note that the ability to exchange health information is just one component of interoperability; it is not the same concept as interoperability. Interoperability requires both the ability to **exchange** information and to the ability to then **use** the information that was exchanged.

The U.S. Department of Health and Human Services (HHS) Office of the National Coordinator for Health Information Technology (ONC) has identified five elements necessary to achieve interoperability:

1. Adoption and optimization of EHRs and health information exchange, including increased adoption across all providers and settings of care including long term and post-acute care providers, behavioral healthcare providers, and laboratories;
2. Standards to support implementation and certification, including standardized vocabularies and transport mechanisms that enable exchange across different EHR systems and settings of care;
3. Financial and clinical incentives, to support adoption and implementation of EHRs across all settings of care;
4. Privacy and security, including principles to support the privacy and security of patient information;
5. Rules of engagement or governance, including an infrastructure to support health information exchange.²

ONC recently released its “10 Year Vision to Achieving an Interoperable Health IT Infrastructure,” which describes building blocks and guiding principles for achieving a nationwide interoperable health information infrastructure.³ HHS, through ONC and the Agency for Healthcare Research and Quality (AHRQ) also requested JASON to address the nationwide challenge of developing comprehensive clinical datasets that could be used to further benefit public health. One of the key findings that the JASON study group identifies, along with the ONC report is the “current lack of interoperability among the data resources for EHRs [as] a major impediment to the effective exchange of health information.”⁴ Some of the recommendations from the JASON report to enhance interoperability include publishing application program interfaces (APIs), a new software architecture, and re-evaluating the Medicare and Medicaid EHR Meaningful Use program Stage 3 requirements to drive greater interoperability.

For more information on interoperability see our Myth Buster here: <http://www.healthinfo.org/5829>. For more information about health information technology see <http://www.healthinfo.org/topics/58>.

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¹Office of the National Coordinator for Health Information Technology, *Principles and Strategy for Accelerating Health Information Exchange*, p. 1 August 7, 2013. Available at:

http://healthit.gov/sites/default/files/acceleratinghieprinciples_strategy.pdf.

²Health IT Buzz Blog, *The Path to Health IT Interoperability*, September 18, 2013. Available at:

<http://www.healthit.gov/buzz-blog/health-innovation/path-health-interoperability/>.

³Office of the National Coordinator for Health Information Technology, *10 Year Vision to Achieving an Interoperable Health IT Infrastructure*, June 5, 2014. Available at:

<http://www.healthit.gov/sites/default/files/ONC10yearInteroperabilityConceptPaper.pdf>.

⁴JASON Report, *A Robust Data Infrastructure*, November 2013. Available at: http://healthit.gov/sites/default/files/ptp13-700hhs_white.pdf.