

INTEROPERABILITY CHALLENGES PERSIST AS ELECTRONIC DATA PROLIFERATES IN HEALTHCARE

The healthcare industry has adopted electronic systems en masse – and is increasingly leveraging connected and Internet of Things devices.

The end result:

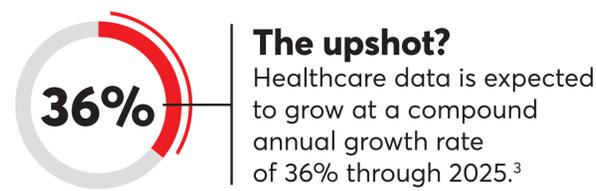
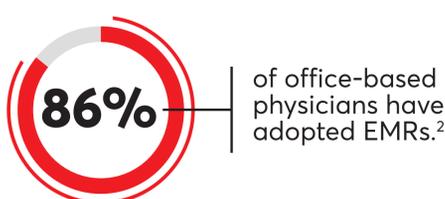
Data, data and even more data.

The challenge:

Turning all of this disparate data into actionable information.

To accomplish this, healthcare organizations need to overcome long-standing interoperability challenges.

THE VOLUME OF ELECTRONIC HEALTHCARE DATA CONTINUES TO GROW.



DATA INTEGRATION IS A PROBLEM THAT NEEDS TO BE SOLVED.



Only about 1 in 10 physicians are engaged in all 4 domains of interoperability: sending, receiving, finding and integrating information from outside sources.⁴

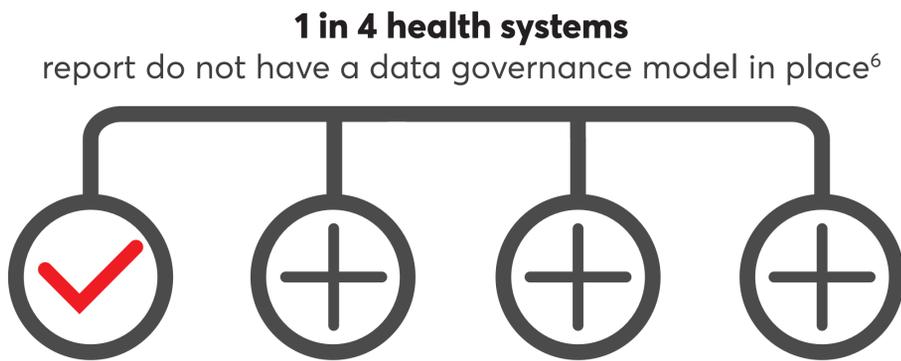
6 data integration roadblocks⁵

- + Data spread from an increasing number of data sources
- + Integrating cloud data with on-premises data
- + Achieving data veracity
- + Soaring data volumes
- + Escalating data velocity
- + Increasing data variety

DATA INTEGRATION STANDARDS COULD HELP

HEALTH LEVEL SEVEN (HL7)	FAST HEALTHCARE INTEROPERABILITY RESOURCES (FHIR)	DIGITAL IMAGING AND COMMUNICATIONS IN MEDICINE (DICOM)
Messaging standards, which define a format for the transmission of health-related information between medical applications.	A specification based on emerging industry approaches, leverage existing logical and theoretical models to provide a consistent, easy to implement, and rigorous mechanism for exchanging data between healthcare applications.	Is an international standard used to transmit, store, retrieve, print, process, and display medical imaging information.

BUT TO MOVE FORWARD, HEALTHCARE ORGANIZATIONS NEED TO EMBRACE INFORMATION AND DATA GOVERNANCE



“With a comprehensive information and data governance initiative in place, healthcare organizations can address many of the challenges associated with data integration. And, from there, they can move beyond simply collecting electronic data to leveraging it to enhance clinical care and improve outcomes,” said **Hiro Imamura, Canon USA**

¹ ONC. Health IT Dashboard. Adoption of Electronic Health Record Systems among U.S. Non-Federal Acute Care Hospitals: 2008-2015. <https://dashboard.healthit.gov/evaluations/data-briefs/non-federal-acute-care-hospital-ehr-adoption-2008-2015.php>
² ONC. Health IT Dashboard. Office-based Physician Electronic Health Record Adoption. <https://dashboard.healthit.gov/quickstats/pages/physician-ehr-adoption-trends.php>
³ IDC. Data Age 2025. <https://www.seagate.com/our-story/data-age-2025/>
⁴ ONC. Interoperability Among Office-Based Physicians in 2015 and 2017. <https://www.healthit.gov/sites/default/files/page/2019-05/ONC-Data-Brief-47-Interoperability-among-Office-Based-Physicians-in-2015-and-2017.pdf>
⁵ Weldon, D. 6 top challenges to successful data integration. Health Data Management. <https://www.healthdatamanagement.com/list/6-top-challenges-to-successful-data-integration>
⁶ “Health System Analytics: The missing key to unlock value-based care.” Deloitte, September 2015.