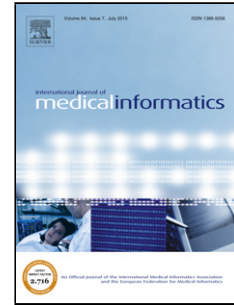


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Title: Variation in Interoperability across Clinical Laboratories Nationwide

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## Variation in Interoperability across Clinical Laboratories Nationwide

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Highlights:

- Hospital-based and large laboratories had greater capability to be interoperable.
- Different types of laboratories all had relatively low levels of exchange activity.
- Laboratories in high EHR adoption areas had greater HIE capability and activity.

,972 (excludes title page,

abstract, references, figures, and tables)

### ABSTRACT

#### Objective

*KeyWords:* health information technology; electronic health records; clinical laboratories; interoperability; health information exchange; standards

To characterize nationwide variation and factors associated with clinical laboratories': (1) capabilities to send structured test results electronically to ordering practitioners' EHR systems; and (2) their levels of exchange activity, as measured by whether they sent more than three-quarters of their test results as structured data to ordering practitioners' EHR systems.

#### Materials and Methods

A national survey of all independent and hospital laboratories was conducted in 2013. Using an analytic weighted sample of 9,382 clinical laboratories, a series of logistic regression analyses were conducted to identify organizational and area characteristics associated with clinical laboratories' exchange capability and activity.

#### Results

Hospital-based clinical laboratories (71%) and larger clinical laboratories (80%) had significantly higher levels of capability compared to independent (58%) and smaller laboratories (48%), respectively; though all had similar levels of exchange activity, with 30% of clinical laboratories sending 75% or more of their test results electronically. In multivariate analyses, hospital and the

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