

Impact of a notifiable condition reporting intervention within a Health Information Exchange

on clinical and public health partners: a mixed methods perspective

R Hills^{1,2*}, B Dixon^{3,4}, U Kirbiyik^{3,4}, P Lai⁶, J Gibson⁷, S Grannis^{3,5}, D Revere²



RICHARD M. FAIRBANKS
SCHOOL OF PUBLIC HEALTH
INDIANA UNIVERSITY
Indianapolis

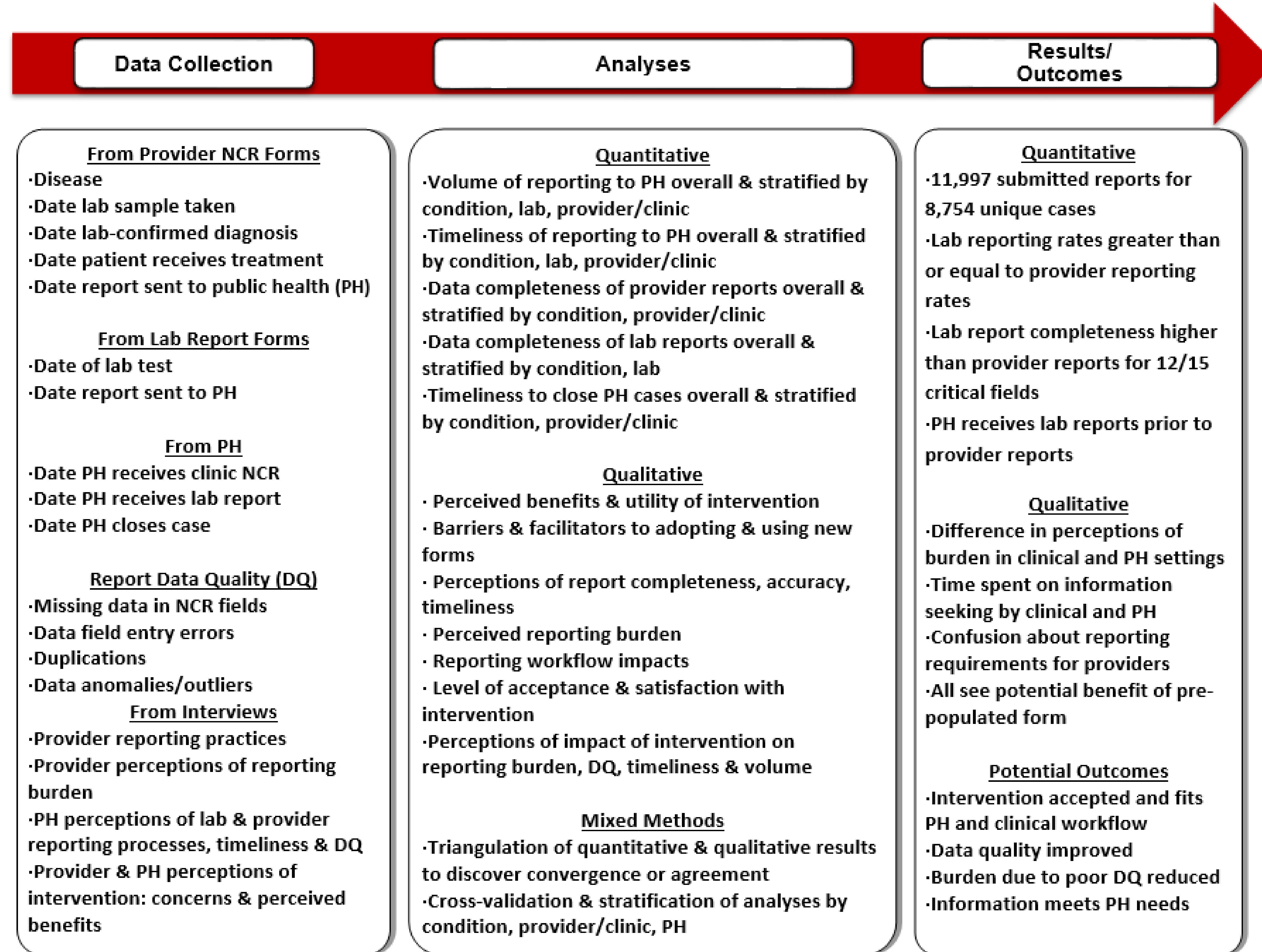


Schools of ¹Public Health & ²Nursing, University of Washington, Seattle, WA; ³Regenstrief Institute, Indianapolis, IN; Schools of ⁴Public Health, ⁵Medicine, ⁶Informatics Indiana University, Indianapolis, IN; ⁷Marion County Dept of Public Health, Indianapolis, IN

Objective Determine the impact of pre-populating notifiable condition report forms with available Electronic Health Record (EHR) data on: Provider reporting rates; Report data quality; Time for public health to close cases; Perceptions of clinical and public health partners on impact of reporting change on workflow & burden

Background: Ongoing, systematic collection, analysis, and interpretation of communicable and infectious disease data forms a cornerstone of public health practice [1]. Studies have found that paper-based reporting (from providers to public health) is burdensome; produces reports that are incomplete, delayed, and vary in data quality [2-3]; and may require additional follow-up by the public health agencies [3]. As the number of clinicians using EHR systems grow, one way to enhance surveillance is to electronically complete or pre-populate the fields in Notifiable Condition Report (NCR) forms with data available in the EHR [4]. Pre-populated NCR forms could improve NCR data quality, streamline reporting by clinicians, and make case processing and investigation more efficient for public health [5]. We are studying the use of a prepopulated NCR form and using quantitative, qualitative and mixed methods to assess the impact on public health and providers.

Methods: Pre- and post-intervention NCR data for seven notifiable conditions—Chlamydia, Gonorrhea, Syphilis, Chronic Hepatitis C, Acute Hepatitis B, Salmonella, and Histoplasmosis—were extracted from public health case files. NCR data were quantitatively assessed for timeliness of reporting and completeness of reports with respect to 15 specific report form fields. In addition, semi-structured interviews with clinic representatives and public health agencies focused on work practices, perceptions of burden, and expected impact of the intervention.



Results: Baseline results indicate that laboratory reporting rates are higher than provider reporting rates. In addition, lab reports contain more complete patient and provider demographic and contact information. Qualitative results suggest that PH and clinical workers spend significant time searching for information. Physicians are rarely involved in the reporting process, rather RNs and MAs are primarily responsible for NCR duties. Clinical interviewees expressed some confusion about reporting requirements. Both clinicians and PH interviewees were very positive about the potential for a pre-populated form to streamline their work related to NCR.

Progress & Next Steps: Timeliness and completeness of laboratory reports as compared to provider reports suggests that alternate methods for gathering and collecting information from labs and providers merit further exploration. In addition, the difficulties encountered by providers in submitting timely NCR forms, e.g., waiting on treatment confirmation, may indicate that traditional reporting protocols should be revisited to reduce delays that may impact public health surveillance activities. We continue to collect and analyze quantitative and qualitative data which will be used to examine changes in timelines, completeness and accuracy of data along with perceived data quality changes and changes to workflow resulting from introducing pre-populated reporting forms.

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UNIVERSITY of WASHINGTON

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*Contact: Rebecca Hills, hillsr@uw.edu