

Oregon implements and optimizes electronic case reporting



CONTRIBUTOR: Michelle Barber, Informatics Manager, Acute & Communicable Disease Prevention, Public Health Division, Oregon Health Authority

CATEGORY: Electronic Case Reporting

Oregon had electronic case reporting in place early on, but the pandemic stymied progress towards evaluating these feeds. Since then, they have implemented a few strategies to deduplicate and match cases and to automate the entire process.

The “What”

Oregon was an early implementer of electronic case reports (eICRs) (first reports were received in 2017), and Oregon Health Authority (OHA) established a formal pilot for chlamydia and gonorrhea in fall of 2019. They were planning an evaluation of reports submitted by OCHIN when the pandemic struck. At the time, they were parsing mostly demographics and trying to improve use of the accompanying HyperText Markup Language (HTML) file.

By April 2020, OHA connected with the Association of Public Health Libraries’ Informatics Messaging Services Hub (AIMS) and began receiving COVID-19 related eICRs statewide. They completed their evaluation of timeliness and completeness but had to shift attention to handle the volume coming from COVID-19. They had several issues with data receipt but have been working to incrementally refine their process. Now they parse most data elements from the files and display the full HTML for users in two disease surveillance systems (Orpheus and Opera).

Key Contributors to this effort include Mitch Ryan, Health Data Integrator


OHA has successfully implemented time-boxing (because the vendors continue to send data that are not timely or have triggered inappropriately – i.e., sending an eICR when a COVID-19 test is ordered). This minimizes the burden on their epidemiologists and local public health staff. They are currently working on a deduplication strategy, and to suppress reports that do not meet reporting requirements if the submitter sends them.

The “So What”

This is still being evaluated; OHA is looking to see if the additional clinical data available in an eICR can be used to populate clinical and risk data that would normally be ascertained during an interview. They are also looking to evaluate whether there is a time savings for workforce, improved case identification, and possibly evaluating comorbidities that might otherwise be missed (e.g., a newly reported HIV case with a history of unreported chronic hepatitis infection).

The “Now What”

OHA continues to refine their deduplication and matching algorithms, user interface, and automation for case creation/linkages. They are also in the process of designing a project to evaluate the added value (or not) for eICR compared to electronic laboratory reporting and how adopting fast healthcare interoperability resources (FHIR) could affect this.

 Funding source: This work was supported in part by the Centers for Disease Control and Prevention (CDC) cooperative agreement #NU38OT000297. Its contents are solely the responsibility of the authors and do not necessarily reflect the views of the CDC.



More stories are available at stories.cste.org

SUBMITTED MARCH 2023