

Oregon establishes data repositories for access and analytics



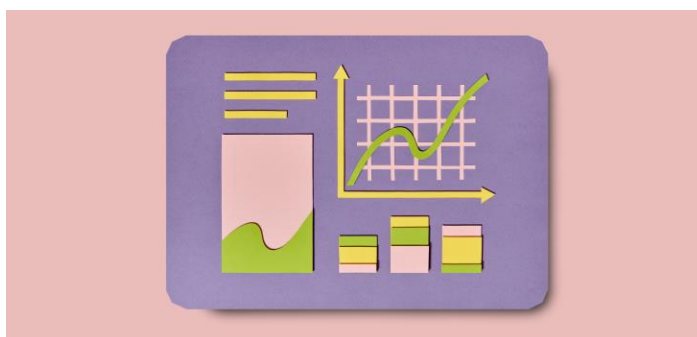
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CATEGORY: **Epidemiology and Laboratory Capacity (ELC)**

CATEGORY: **Partnership and Innovation**

Oregon Health Authority (OHA) built a database for their COVID-19 data to create visualizations and reports. These were shared with internal partners and leadership to inform decisions about resource distribution.

When Oregon Health Authority's (OHA) integrated disease surveillance system (Orpheus) was launched in 2008, the focus was a simple and flexible user interface. They established a robust security module, disease-specific modules, integration of electronic laboratory reports, and the ability for users to export data securely on demand. They also made sure limited aggregated data were available for simple reports (e.g., case count by county, by time frame, etc.) with limited demographic data as well as triennial review metrics local public health partners could run to evaluate various performance metrics (e.g., case investigation timeliness and completeness).



The “What”

Prior to the pandemic, OHA began to explore options for moving more transactional data into a data mart for better visualization and analytics. Progress was slow due to lack of resources and infrastructure. When COVID-19 happened, their transactional system was brought to its knees because it could not meet the reporting demands and the data mart was not established. They paused on conversations about the data mart and pivoted to establish a nightly feed of COVID-19-specific data (including richer demographics, risk, lab, severity and immunization data) to populate a structured query language (SQL) database.

The COVID-19 Response and Recovery Unit stood up an entire visualization team to quickly generate and share timely reports with internal and external partners. Using this model, OHA resumed work on the data mart model in February 2022. Their goal is to get all their transactional data into a data mart that can be used to provide richer data for analytics and reporting.



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As OHA continues this work, they expect **improved performance on the transactional system, better access to reports for less-resourced jurisdictions, improved data quality, and improved data linkages with other health and demographic data.**

The “So What”

Oregon has been lauded for the timeliness and transparency of their data during the pandemic. Internal partners and public health leadership used these reports to inform decisions about resource distribution, messaging and staffing needs. At the local level, data were used for modeling and contact tracing efforts. As OHA continues to build out this data mart, they expect improved performance on the transactional system (as the export and analytics will be off-loaded), better access to reports for less-resourced jurisdictions, improved data quality, and improved data linkages with other health and demographic data.



The “Now What”

OHA is in the early implementation of this solution. They export data nightly but are not yet in production as data quality issues continue to plague the ability to automate. Sustained funding and staffing is needed to implement and make this tool accessible.

OHA also is working to resolve issues around case level security, which involves additional technology resources as their visualization tools (Tableau and Arc-GIS) do not integrate with Active Directory, so both policy and technology alternatives will need to be explored. At present, all staffing will end in Summer 2024, which puts this project at risk.

Key contributors to this project include Mitch Ryan, Health Data Integrator, and Shannon Allain, Data Visualization Informatician.