Michigan uses a fork in the road to address electronic laboratory reporting traffic jams

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CATEGORY: **Laboratory Data Exchange**

Michigan Department of Health and Human Services (MDHHS) managed massive electronic laboratory reporting (ELR) volume by routing negative labs to a holding area for separate processing and analyses.

The "What"

Due to the COVID-19 pandemic, MDHHS's surveillance system began to experience overwhelming ELR submission volume. Incoming ELRs consisted of both positive and negative results which are important for understanding the impact of COVID-19 within the community, but for a system not designed to process negative reports it contributed to performance and workflow issues across state and local health departments. As a result, MDHHS utilized processing software to separate incoming results into distinct feeds for positive and negative results. Positives were routed into the surveillance system for investigation and all results were also copied to a holding area. Staff then used an open-source application to index and report on the data in the holding area.

The "So What"

The indexing of the holding area data allowed for the generation of daily reports on positivity rates and the distribution of limited testing resources in communities while preserving the functionality of the surveillance system. Separating out the negative labs unburdened the surveillance system and facilitated data flow for all reportable conditions, which was critical for local health departments. This prioritization of processing allowed MDHHS to maintain system functionality, address the unprecedented demands for real-time data, and reduced the burden on epidemiologists who had innumerable other responsibilities to carry out.

The "Now What"

The implementation of this workflow addressed an immediate need but also provides lasting benefits. The open-sourced indexing system has been leveraged for the analysis of other laboratory reports in the system. MDHHS is now well-positioned to manage volume changes that may occur with future illnesses, making the surveillance system sustainable and scalable in the face of changing public health needs.

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