

# Minnesota leverages data for public health surveillance and decreasing provider reporting burden



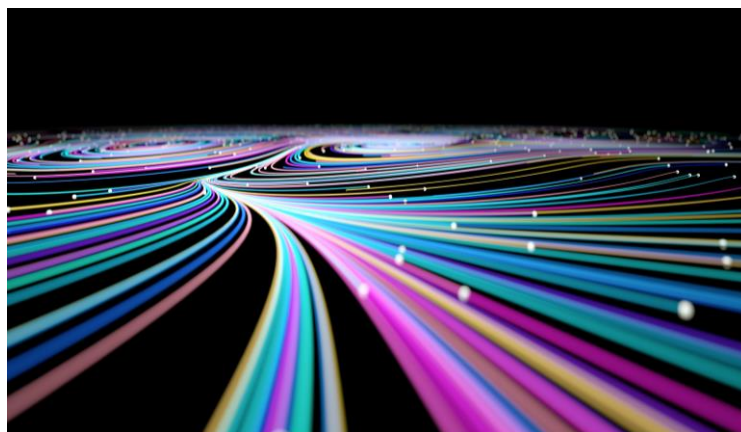
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CATEGORY: Electronic Case Reporting

When Minnesota Department of Health (MDH) first started receiving electronic case reports (eCR), processing and review was manual. Automated processing was necessary to support the additional feeds that would soon be added. This significantly reduced the burden on staff, freeing them up to focus more on data quality and expansion of receipt across programs.

## The “What”

When electronic case reporting (eCR) became viable in 2020 for COVID-19 reporting, the Minnesota Department of Health (MDH) needed to quickly implement automated processing of the eCRs into their surveillance system and attach a readable format. First receipt of eCRs were manually processed after arriving at MDH – downloading the eCRs, having multiple staff review, searching in the surveillance system for the patient, and adding the additional information/attachment into the system. This was not a sustainable solution, especially with their first major healthcare organization (HCO) passing into production.



## The “So What”

Increased ability to process eCRs in real time: Manual data entry capped MDH's ability to process eCRs at 500/day; once automated, MDH successfully processed nearly 4,000/day.

Reduction on staff entry time from 32 to 0 hours: The automation could handle thousands of reports daily and process into the surveillance system with less than one percent erroring out and requiring human intervention. MDH went from eight staff entering daily to no staff entry, saving 32 hours of work daily to focus on other tasks.



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Create a pathway for turning off manual reporting for HCOs: MDH established a process for reviewing and allowing for manual reporting to be turned off for COVID-19, reducing the time and energy on HCOs needing to manually report COVID-19 cases. This also sped up reporting by days.

Reduction of staff needed for review from 28 to 5: The automation of the eCRs allowed MDH to identify trends of when eCRs being reported were not being made into confirmed cases (i.e., the eCR did not contain information that met case status definition to make into a case). MDH took the findings and fine-tuned the reporting rules at the central platform to reduce the volume by more than half and increased accuracy of eCRs that met the case definition. They were able to reduce the number of staff needed to review eCRs for COVID-19 only from 28 full-time staff to 5 full-time staff. Staff were able to review more quickly and catch issues – such as a name coding related to the process route requiring a field that is not required in the implementation guide.



**Automation allowed MDH to process 4,000 eCRs per day, reduced staff entry time from 32 to 0 hours, and reduced staff needed for review from 28 to 5.**

## The “Now What”

Automation has allowed MDH’s eCR team to focus on other issues/developments rather than processing eCRs into the surveillance system. MDH is learning from what they are receiving and can work on development to continue to improve usefulness of eCRs. Their setup allows for other divisions to quickly start receiving eCRs because the foundation is built.

MDH continues to promote central solutions for identifying disease-specific information in the eCR rather than every public health agency having to build and maintain individual solutions for

identifying and extracting this information by each reportable disease. MDH is unable to quickly build out vaccination extraction relevant for each disease, which means eCRs will continue to be underutilized because the data isn’t getting added into the investigation. Able to onboard more HCOs and increase eCR submissions without significantly increasing MDH staff time to enter or review eCRs in comparison to manual reporting. MDH plans to expand and fine tune the process for turning manual reporting off from HCOs after reporting of all reportable diseases.