

North Carolina uses eCR to detect major ELR outages



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CATEGORY: **Electronic Case Reporting**

Electronic Case Reporting (eCR) played a critical role in identifying and mitigating two major outages in Electronic Laboratory Reporting (ELR) from large healthcare providers in North Carolina. These events highlight the importance of redundant, automated reporting systems in maintaining the integrity and timeliness of public health surveillance.

The “What”

The North Carolina Department of Health and Human Services (NCDHHS), part of the Division of Public Health, relies on a combination of ELR, eCR, and manual reporting to populate its disease surveillance system, NCEDSS. In both 2021 and 2024, significant ELR outages occurred at two major healthcare organizations, resulting in weeks of missing laboratory data for notifiable conditions.

These outages might have gone unnoticed for an extended period—if not for eCR. Despite the ELR failures, eCR messages continued to flow into the surveillance system. These reports included structured clinical data and were flagged for missing lab results, triggering an internal review.

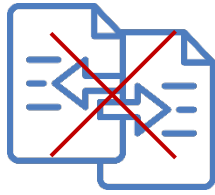


The richness of eCR data—such as test location, ordering provider, and patient demographics—enabled the eCR and ELR teams to quickly identify the scope and source of the issue. NCDHHS staff collaborated with the affected providers to recover the missing lab data and resolve the technical issues that caused the outages.



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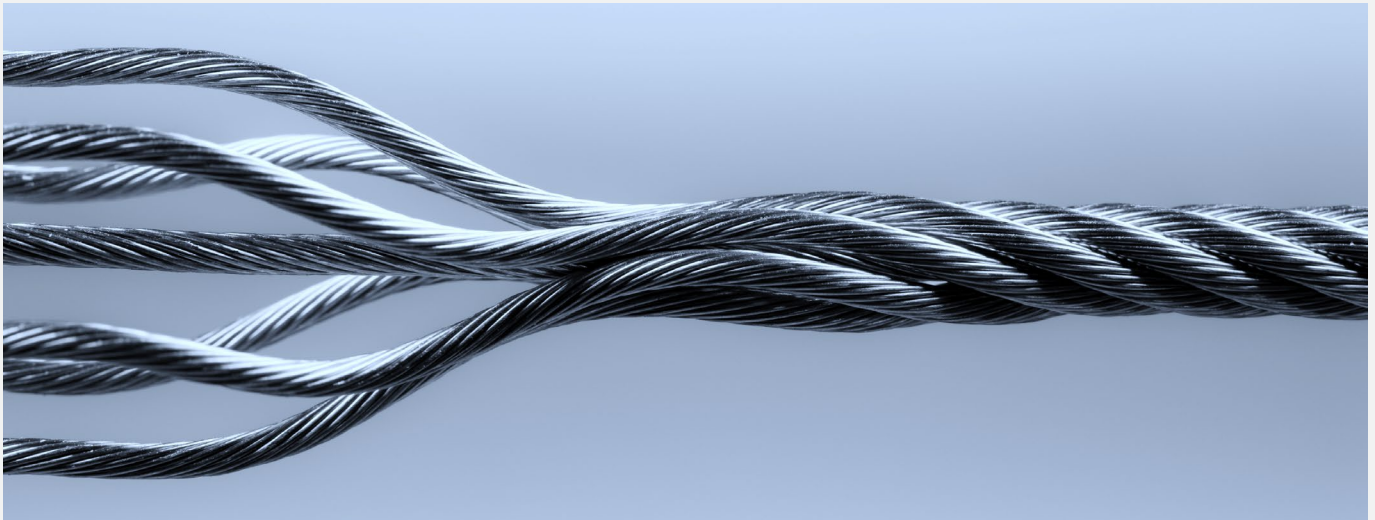


When that stream **fails**, the consequences can be significant: **missed cases, delayed interventions, and incomplete surveillance.**

The “So What”

These incidents revealed that eCR is a critical safety net in addition to being a supplemental data source. In 2024, ELR accounted for 76% of cases created in NCEDSS, meaning most case data depend on a single reporting stream. When that stream fails, the consequences can be significant: missed cases, delayed interventions, and incomplete surveillance.

eCR ensured continuity during these outages, allowing public health staff to detect the problem early and take corrective action. Without it, the missing data could have gone unnoticed for weeks, delaying public health response and potentially putting communities at risk.



The “Now What”

In response, NCDHHS is accelerating eCR onboarding for new facilities and expanding the list of reportable conditions supported by eCR in NCEDSS. Between January and June 2025, eCR accounted for 19% of reports for chlamydia, gonorrhea, measles, and mpox.

This proportion continues to grow as more providers and conditions are brought into production. The department is also investing in tools to monitor data completeness and detect anomalies across all reporting streams. Together, these efforts are transforming eCR into a foundational component of North Carolina’s disease surveillance infrastructure.

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