

NEVADA

Nevada Central Cancer Registry (NCCR); Christine Pool, Program Manager; Rani Reed, Business Process Analyst

Electronic Laboratory Reporting: Promising Practices and Achievements

NATIONAL PROGRAM OF CANCER REGISTRIES SUCCESS STORY

SUMMARY: NCCR has worked diligently the past several years on improving cancer reporting experiencing success in increasing provider reporting, passage and implementation of more clear language of the Nevada Revised Statutes (NRS) and Nevada Administrative Code (NAC), and becoming part of the Interstate Data Exchange. In 2018, NCCR recognized the need to focus on laboratory reporting.

The majority of Nevada laboratory reports come from national laboratories in an HL7 format. Since the implementation of the Registry Plus suite in 2014, eMaRC was used primarily as a method to receive HL7 pathology files for export. In February 2018, NCCR staff began to learn more about eMaRC and the imported laboratory reports. With thorough evaluation of all imported records, proper coding, and training from CDC consultants, NCCR staff was able to increase the number of useable pathology reports.

NCCR uses costly HL7 translation software for laboratories who are unable to provide reports in the HL7 format. This translation software has become cost prohibitive to the registry. There are 3 remaining hospital laboratories who rely on this software. The registry made it a priority to work with the laboratories to find a solution. A national laboratory that also provides laboratory services to these hospitals offered assistance and guidance to implement a reporting solution that meets national reporting standards. NCCR anticipates automatic HL7 feeds by the end of the grant year.

NCCR is making great strides working with the largest hospital system in Northern Nevada, which has been a non-reporter, to provide in-house pathology reports for hospital and non-hospital records through an EPIC Electronic Health Records (EHR) system platform. Work began in March 2018 and NCCR will begin receiving electronic HL7 reports through an automatic feed to the state SFTP site by the end of October 2018.

With technical assistance from the CDC, the registry is working with a nationwide laboratory to receive HL7 reports. This laboratory is one of the laboratories who relied on NCCR's translation software to report. Weekly meetings began in September 2017 to monitor progress and the team has made great headway finding an interim solution to provide records in the HL7 2.5.1 format delivered through an SFTP site eliminating the need for NCCR's software. The next step of the process will be to deliver the pathology files through Nevada's Association of Public Health Laboratories (APHL) Informatics Messaging Services (AIMS). This software receives automated transmissions of reportable laboratory findings via laboratory information management systems or electronic health records systems sent from commercial, public health, hospital, and other labs to state and local public health departments. This is an established and proven method of HL7 reporting that can integrate cancer reporting. Nevada will be the pilot state and, if successful, a model will be developed which could be rolled out nationally to other states or laboratories.

CHALLENGES:

- Through record evaluation in eMaRC, the registry identified many miscoded records due to incorrect formatting of pathology reports from a national laboratory requiring time consuming review and correction.
- Costly in house HL7 translation software that the registry discontinued.
- Staff turnover at facilities which slowed the progress of laboratory reporting.

- Time consuming paper pathology report processing.
- Time consuming cleaning of data for linkages.
- Missed pathology cases in previous years due to incomplete or incorrect coding not identified until 2018.

SOLUTIONS:

- Registry staff met with national laboratory to review problems with filtering and incorrect formatting of HL7 reports.
- NCCR staff worked closely with CDC consultants to initiate work with a national laboratory developing the APHL-AIMS solution.
- NCCR staff attended multiple CDC eMaRC training sessions and received technical assistance.
- Review of every eMaRC record to make sure records were accurate and usable.

RESULTS:

- NCCR staff suggested eMaRC enhancements which were included in the latest patch release.
- Increase in the number of usable pathology reports.
- More complete consolidated tumor records due to information from the increased number of pathology reports.
- NCCR is receiving pathology cases previously not reported.
- Development of the pilot for APHL-AIMS reporting.
- Improved ability to conduct timely follow back and audit.
- Increased knowledge of external systems and reports.
- Development of more efficient ways to process pathology reports.

SUSTAINING SUCCESS:

- Seek out additional non-reporting laboratories or facilities who are not able to provide electronic reporting to replicate processes which assisted other laboratories in becoming compliant with national standards.
- Continue to refine the pathology flow to maximize results.
- Continue to work closely with CDC consulting staff to seek more efficiencies in pathology processing.
- NCCR will continue to seek funding to staff a full-time person to be solely dedicated to pathology onboarding and processing.

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