

Oregon Public Health Division

Manual for Electronic Case Reporting

elr.project@state.or.us
Tel. 971-673-1111
FAX 971-673-1100

Version 1 – July 2020



Oregon Electronic Case Reporting

Contents

Oregon Electronic Case Reporting.....	2
Introduction to Electronic Case Reporting (eCR).....	3
eCR Readiness Checklist.....	4
Reporting Details	5
Ongoing Quality Assurance.....	6

For Information about Oregon eCR, visit us on the web at: healthoregon.org/ecr
Or contact us at 971-673-1111

Revision History	Issue Date	Summary of Changes
1	July 20, 2020	Initial version

Introduction to Electronic Case Reporting (eCR)

The Oregon Electronic Case Reporting (eCR) Project is an effort to modernize the way providers and the healthcare community report cases of disease to the Oregon Public Health Division (OPHD). In this modernized environment, the state health department functions as an electronic hub to accept, translate, and route demographic, clinical, and treatment data contained in a standardized computer processable format. Healthcare providers, facilities, and health systems report notifiable condition data to public health, and public health acts upon the data.

Reports received by eCR are propagated within our integrated electronic disease surveillance systems, Orpheus and Opera. Because Oregon hosts a shared disease surveillance system incoming data are available to local public health departments in near real-time, and the county health department will continue to perform its current investigative responses. These systems are intended for local and state public health epidemiologists and disease investigators to efficiently manage communicable disease reports. Orpheus and Opera are compatible with national standards and comply with the highest level of security and confidentiality.

Benefits

eCR offers long-term benefits to both healthcare providers and public health. Data available via eCRs can offer timely access to information not available in more traditional laboratory reports including current problem list, medication list, labs ordered, and social history. Each of these components may provide information to better inform an effective public health response both for routinely reportable diseases as well as conditions of potential public health concern.

Healthcare provider benefits include:

- Automation of reporting reduces person hours and duplicate data entry
- Single data depository removes need for multiple county faxes and phone calls
- Faster, more timely reporting
- Reduced human errors

Public health benefits include:

- Faster, more accurate data lead to improved public health efficacy
- Reduced duplicate data entry
- Reduced burden for epidemiologists and local public health nurses

Oregon Administrative Rules and eCR Resources

In March 2020, in response to the COVID-19 pandemic, electronic reporting of cases, hospitalizations, deaths, testing and Multisystem Inflammatory Syndrome in Children (MIS-C) became reportable in Oregon. In July 2020, the rules were modified to recommend eCR as the **preferred** method for reporting these cases. For facilities unable to meet this recommendation, entry of data into Oregon's online morbidity reporting tool is the only alternative for reporting. While electronic reporting is not required at this time, failure to report cases by any mechanism may result in civil penalties (http://arcweb.sos.state.or.us/pages/rules/oars_300/oar_333/333_018.html).

For all other reportable conditions, while eCR is not mandated, it may still be beneficial in that these facilities will incur the same benefits of lower human error, reduced duplicative entry, etc. Further, OPHD is interested in working with any healthcare provider that is interested in participating in eCR in an effort to meet the Promoting Interoperability objective for Public Health Reporting.

References and Tools

If you have this document, you've probably already found the Oregon eCR website:

<http://www.healthoregon.org/ecr>. Here you can access the HL7 CDA® R2 Implementation Guide: Public Health Case Report, Release 2 - US Realm - the Electronic Initial Case Report (eICR) specification, Clinical Reporting Poster,

and links for nationally recognized standards like LOINC and SNOMED. There are also links for Oregon Public Health Promoting Interoperability (formerly, Meaningful Use), and Oregon Administrative Rules. This document, along with the Oregon HL7 Implementation Guide will assist you in developing, testing, validating, and delivering production level reports to OPHD.

If you choose to participate in eCR, reports must be submitted directly to the state eCR program; healthcare providers not participating in eCR are required to report directly to the Local Health Department (LHD) of the patient's County of Residence, with the exception of COVID-19 reporting which must be done through the online reporting tool if not done via eCR.

eCR Readiness Checklist

The following checklist can be used to help determine your readiness to participate in eCR in Oregon. We are happy to provide assistance to facilities as they work toward meeting these criteria. Please contact the Oregon eCR Project at 971-673-1111, via email at elr.project@state.or.us, or visit our website at www.healthoregon.org/ecr for more information.

- Healthcare provider diagnoses a specified infection, disease or conditions which is reportable by law to Oregon Public Health. See the Oregon Administrative Rules (OARS) for Disease Reporting at http://arcweb.sos.state.or.us/pages/rules/oars_300/oar_333/333_018.html and the Clinician Reporting Poster for details.
- The Healthcare facility is prepared to meet OPHD-specified reporting guidelines and must:
 - Report reportable disease and demographic data through eCR.
 - Report required demographic and disease specific using the agreed upon eCR format. The eCR Program will work with submitters to validate sample messages that include:
 - Complete patient address information in the report (street, city, state, zip and county).
 - Complete demographic data including Oregon specific race, ethnicity, language and disability (REAL-D) standards.
 - Standardized reporting codes (e.g., LOINC, SNOMED, and ICD) where appropriate.
 - Submit reports in a timely manner (meet or surpass the required time specifications listed in the Oregon Administrative Rules).
 - Use an OPHD-approved secure transmission methodology. Currently accepted methods include secure file transfer protocol (SFTP), the Public Health Information Network Messaging System (PHINMS), Direct Secure Messaging, or the APHL AIMS Platform. Details on these methods and credential provision will be provided by OPHD.
 - Have an emergency preparedness plan for reporting continuity in the event of emergency situations that would disrupt electronic communications. It is recommended that this backup plan utilize at least two alternative methodologies (e.g., fax, secure email). Initial and/or periodic tests of alternative methodologies may be requested.
 - Agree to participate fully in Oregon's Data Quality Control program. This includes specified duties such as periodic data checks, verification of reportable codes, etc.

Reporting Details

Initiating contact with the Oregon eCR Project is the first step in being able to craft a message for the purpose of communicating electronic case reports. For sites that are attempting to meet the Promoting Interoperability objective, registration in the Public Health Meaningful Use Registration System (<http://healthoregon.org/mu>) is also required. Once the request to establish an eCR feed with the eCR Coordinator is made, a kick-off call will be scheduled to discuss message format, standards, reportable conditions, and transport methodology. Once transport is decided, you will need to complete the requisite paperwork to establish transport credentials.

We recommend pre-testing structure and content of eCR messages using the AIMS Validator (<https://validator.aimsplatform.org/>). This tool will aid in the construction of messages that conform to the national initial case report for public health. Next, test messages should be sent to the Oregon eCR test environment where they will be reviewed by the eCR Coordinator. Once all parties are satisfied that the message content and structure are sufficient, the submitter will move into an acceptance testing phase.

During acceptance testing, production data must be sent to OPHD's production environment, while continuing the existing reporting method (e.g., faxing the local public health authority). Typically, facilities remain in acceptance testing for a minimum of 30 days¹. During this time, local public health nurses and state epidemiologists will compare the timeliness, completeness, and accuracy of eCRs with existing reporting practices. As issues arise, they will be reported back to the facility for corrective action. If the volume of reporting is sufficient and when all identified issues have been resolved, the eCR Coordinator will solicit approval from the local health departments to move your facility to full production mode.

Once in full production, the submitting facility will discontinue faxing reports and only send eCRs. Issues identified while in production (e.g., missing eCRs, lags, incorrect codes, etc.) require immediate remediation. Failure to address issues will result in a return to acceptance testing (e.g., fax and eCR dual reporting) until resolved.

Format

The recommended format for Oregon eCR is HL7 clinical document architecture (CDA), specifically the Electronic Initial Case Report (eICR). Oregon does not maintain a local implementation guide but will work with sites that have not constructed an acceptable eICR message as long as it conforms to the CDA structure. Oregon may consider accepting alternate formats (e.g., CSV submissions for long term care facilities) on a case by case basis. Please note that any alternate format is not suitable for Promoting Interoperability.

Standards and Coding

Use of standardized reporting codes LOINC®, SNOMED, and ICD-10 is required where appropriate in the HL7 specification. Links to these standards are available on our website.

Transport Method

Healthcare facilities must utilize an OPHD-approved secure transmission methodology. The preferred method of transport is through the APLH AIMS Hub (https://www.aphl.org/programs/informatics/Documents/APHL_AIMS_Hub.pdf). For this method, the facility will need to work with APLH directly as OPHD has an established feed and therefore submission is through the hub. For sites with Direct Secure Messaging capabilities, OPHD supports exchange of data via this mechanism. Other acceptable methods for transport include secure file transfer protocol (SFTP) or the Public Health Information

¹ During the COVID-19 response, and due to the volume of reporting, this dual-reporting period may be waived on a case-by-case basis by the eCR Coordinator.

Network Messaging System (PHINMS). The most appropriate method will be determined on a case-by-case basis, and credential provision will be provided by OPHD once decided.

Ongoing Quality Assurance

The eCR data quality control plan consists of four-stages: development, testing, review, and maintenance. Facilities entering eCR will progress through the stages as shown below. The following checklist summarizes the responsibilities of facilities participating in Oregon eCR.

- Stage I: Onboarding and Development
 - Agree upon transmission method, set up procedures, begin formatting
 - Internal testing, confirm using the AIMS Validator
- Stage II: Testing
 - Facility transmits data to Oregon eCR for validation testing and transmission testing
 - Must conform to specification and include all required elements and code sets
- Stage III: Acceptance Testing
 - Facility begins regular transmission of production data in parallel with traditional reporting method (i.e., faxing to local health departments [LHD])
 - eCR timeliness and completeness are reviewed by state epidemiologists and LHDs
 - Remain in this stage for minimum of 30 days or until approval from state and LHDs
- Stage IV: Production and Maintenance
 - Monitor ongoing data quality and quantity. Serious problems may result in regression to Stage III: Acceptance Testing
 - Facility will participate in a yearly review of eCR submissions to ensure the integrity of Oregon Public Health's reporting system; this will include review of codes and conditions, as well as an audit list of selected reports determined by OPHD.