MDH Interoperability Webinar Series: Electronic Lab Reporting (ELR)

Sarah Boneske and Ann Kayser, ELR Team

Melinda Hanson | Interoperability External Partner Liaison

January 13, 2022

PROTECTING, MAINTAINING AND IMPROVING THE HEALTH OF ALL MINNESOTANS

MDH Overall Data Strategy

Join any or all MDH Interoperability Webinars in this Series:

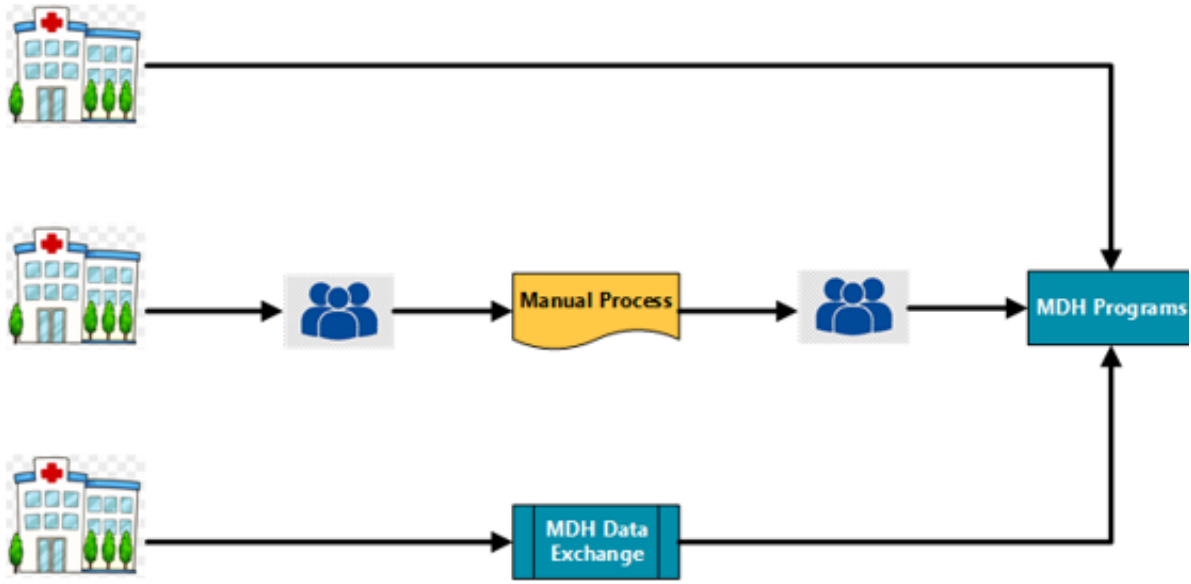| Date	Public Health Reporting Use Case
January 13	Electronic Case Reporting (ELR) *
January 20	Electronic Case Reporting (eCR) *
January 27	Laboratory Orders/Results – Infectious Disease Lab (IDL)
February 3	Laboratory Orders/Results – Newborn Screening Blood Spot (NBS)

Webinar materials: DSI website
(https://www.health.state.mn.us/data/interoperability/webinar.html)

* Denotes CMS required public health reporting for Medicare payments

DEPARTMENT OF HEALTH
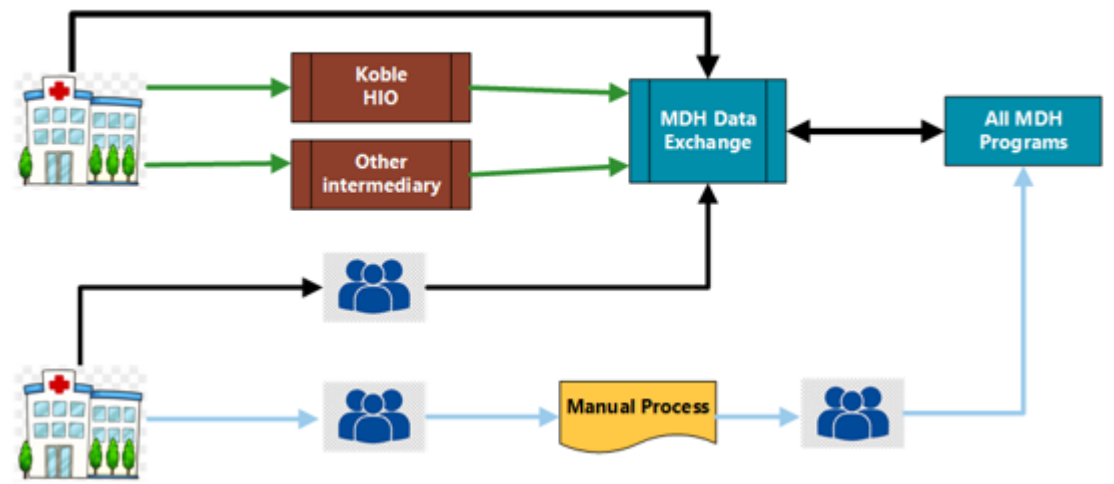
Webinar providing information towards:

- ✓ Reducing your reporting administrative burden

- ✓ Meeting the CMS public health reporting requirements

- ✓ Improving data quality so information shared with MDH can better address future emerging threats and address population health issues

- ✓ Learning how you, your organization, and your patients benefit from improved public health reporting

MDH Request of External Partners

- ✓ **Schedule meeting with DSI** to discuss more details related to health system needs

    - Determine your organizations' public health reporting priorities for implementation and share with DSI (checklist)

    - Discuss any barriers or opportunities for electronic implementation with MDH

- Consider Participation Agreement with Koble

    (https://3b54d489-fb07-4eda-b01d-8169cc695bc4.filesusr.com/ugd/64a972_dddba6a5436949e5952abe8094b9c778.pdf)

- Plan and coordinate MDH public health reporting improvements through DSI and provide feedback to processes

Electronic Laboratory Reporting (ELR)

Electronic Laboratory reporting (ELR)

is the automated exchange of laboratory results information between Laboratory Information Systems (LIS) and public health agencies.

ELR aims to eliminate the burden of manual reporting, improved timeliness and completeness of reports.

- **Exchange standard**
  - HL7 Version 2.5.1 Implementation Guide: Electronic Laboratory Reporting to Public Health Release 1 (US Realm)

- **Vocabulary standards**
  - Facility codes (CLIA, OID)
  - Lab Orders (LOINC)
  - Lab Results (SNOMED)
  - Lab Result Test Name (LOINC)
  - Specimen Source/Site (SNOMED)

- Reporting Requirements: All medical laboratories are required to report certain infectious diseases to the public health agency responsible for their jurisdiction within one working day of completion
  - If the clinical material is forwarded to another medical laboratory for testing, the originating medical laboratory retains the duty to report.
  - Minnesota Rules, Chapter 4605 (Communicable Disease)
  - Minnesota state lead statue section 144.9502 (Lead Poisoning Prevention Act)
- > 75% of reportable laboratory findings are reported through ELR presently.
- Increases timeliness and completion of reports and decreases user entry errors.
- Parallel to case reporting, not duplicative

Onboarding Process

mn DEPARTMENT OF HEALTH

Registration
- Trading Partner (TP) registers
- MDH sends confirmation email; places partner in onboarding queue

Onboarding Queue
- TP waits to move to pre-testing until MDH has resources
- MDH reaches out to establish a kickoff date, usually 4-6 months out
- MDH sends formal invitation to onboard

Pre-testing
- Kickoff call: MDH reviews documentation, process, and answers onboarding questions with TP
- Facility completes onboarding worksheet, Lab Code and Specimen List, and proves ability to generate HL7 ELR messages

Testing
- Secure transport set up between MDH and TP Test Environments
- Test messages sent from TP to MDH
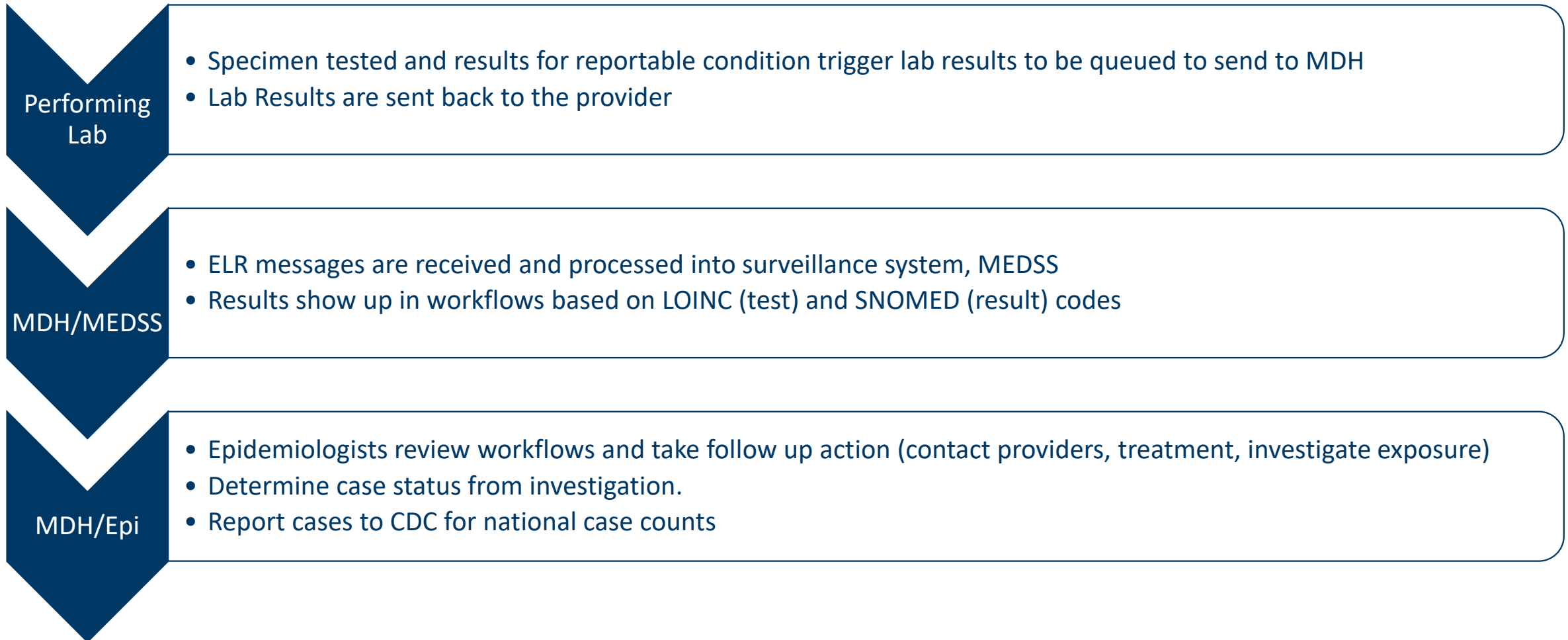- MDH provides feedback, TP reviews

Validation
- MDH approves TP production data to MDH test system, program staff reviews data
- MDH provides feedback
- Program staff sign off on approval to move TP Production labs to MDH Production system

Production
- Probationary period set for on-going parallel production
- Program staff sign off on TP Production labs to turn paper reporting off
- MDH sends official documentation to TP

For more information on Minnesota Department of Health Electronic Laboratory Reporting and Meaningful Use Process:
https://www.health.state.mn.us/diseases/reportable/medss/elr.html

Reporting Process

Performing Lab
- Specimen tested and results for reportable condition trigger lab results to be queued to send to MDH
- Lab Results are sent back to the provider

MDH/MEDSS
- ELR messages are received and processed into surveillance system, MEDSS
- Results show up in workflows based on LOINC (test) and SNOMED (result) codes

MDH/Epi
- Epidemiologists review workflows and take follow up action (contact providers, treatment, investigate exposure)
- Determine case status from investigation.
- Report cases to CDC for national case counts

- Difficult conditions for reporting

  - Negative reporting for confirmatory testing: HIV, HBV, HCV

  - Diseases with Qualifiers: Hospitalized Flu

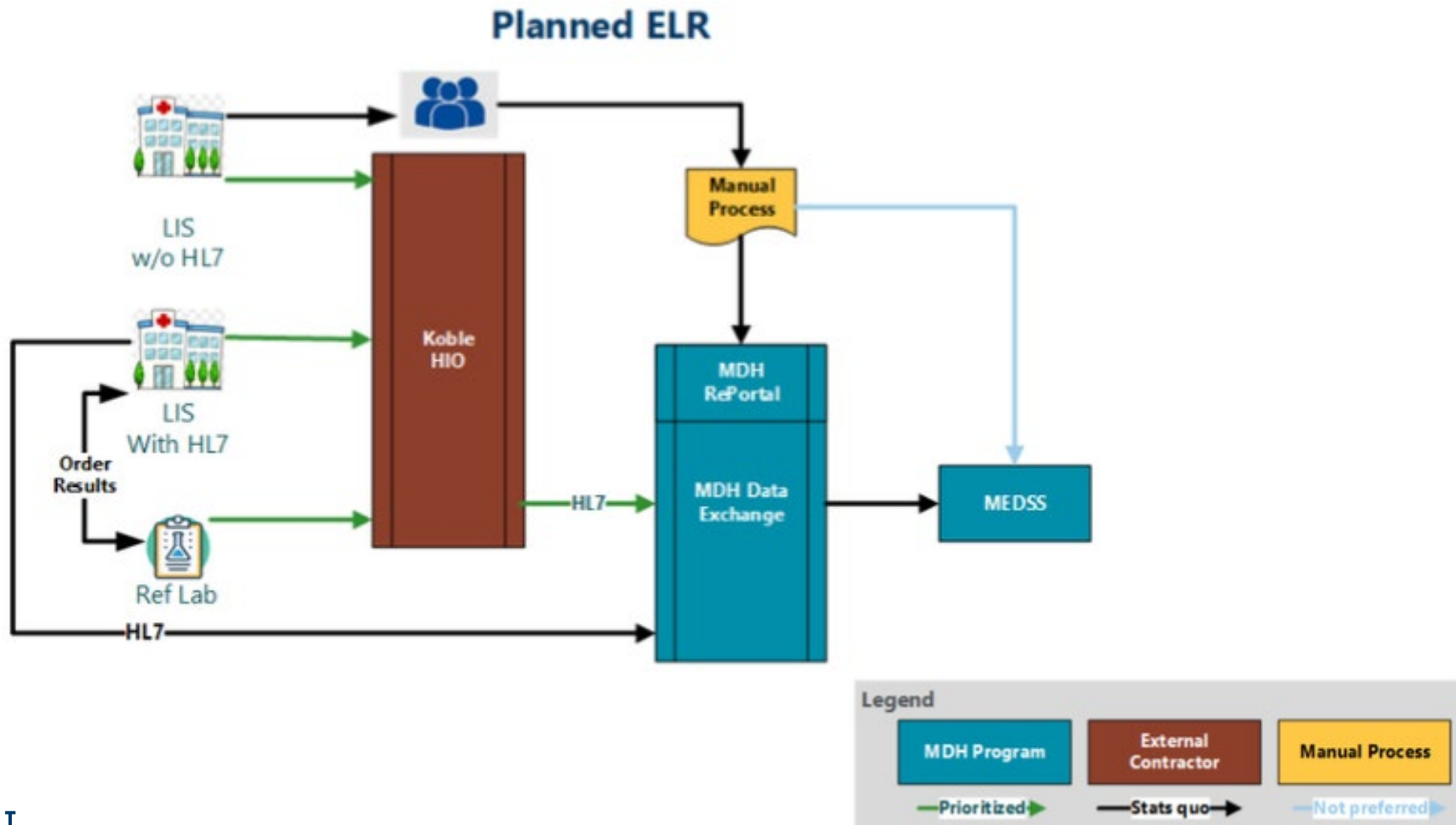 - Reportable by patient county of residence: Candidemia

- Reference laboratory reporting

- End of line characters for messages

- Missing reports after go-live

Future State

- For facilities initially onboarded for COVID only ELR, expand to electronically sharing all reportable conditions

- Onboard facilities currently utilizing MDH RePortal to report and transition to ELR

- To align with MDH data strategy, encourage facilities to share ELR via Koble (Health Information Organization (HIO) contracted with MDH for multiple different use cases)

Planned ELR

MDH-Koble HIO Contract – how does it work?

- Connect external partners to MDH for many public health transactions.

- Contract pays for Koble set up fees for multiple transactions and first year of participation fee for the external partner.

- External partner provides internal IT resources to implement the projects, EHR costs, and future HIO maintenance costs (up to $10,000 annually).

- External partner may utilize HIO for other services beyond public health reporting to maximize value of HIO maintenance costs

DEPARTMENT OF HEALTH

- Support COVID activities through data integration

- eData Registry Replacement (External Partner Registry) for onboarding and ongoing tracking of all Use Cases

- PHINMS Replacement solution analysis

- Update program website

Next Steps

Preparing to onboard for ELR

- MDH prioritizes submitters by volume of submissions, urgent need, and ability to set up a secure connection
- Ensure your facility is registered for Promoting Interoperability (formerly Meaningful Use) through the (interim) DSI Checklist
- Things you can do as you wait to onboard for ELR:
  - Ensure LOINC codes are implemented for Tests, SNOMED codes for Results, SNOMED codes for specimen
  - Review reportable disease list to ensure what will need to be reported or reportable disease rules
    - Labs Reportable via ELR: https://www.health.state.mn.us/diseases/reportable/medss/elrappa.pdf
    - MN Communicable Disease Rule: http://www.health.state.mn.us/divs/idepc/dtopics/reportable/rule/index.html
    - MN Blood Lead Reporting requirements: https://www.revisor.mn.gov/statutes/?id=144.9502
  - Validate test messages utilizing NIST (No patient identifiable data):
    - https://hl7v2-elr-testing.nist.gov/mu-elr/

- ✓ **Schedule meeting with DSI** to discuss more details related to health system needs

  - ▪ Determine your organizations' public health reporting priorities for implementation and share with DSI (checklist)

  - ▪ Discuss any barriers or opportunities for electronic implementation with MDH

- ▪ Consider Participation Agreement with Koble

  https://3b54d489-fb07-4eda-b01d-8169cc695bc4.filesusr.com/ugd/64a972_dddba6a5436949e5952abe8094b9c778.pdf

- ▪ Plan and coordinate MDH public health reporting improvements through DSI and provide feedback to processes

DEPARTMENT OF HEALTH

Q&A

ELR contacts and additional information

- **MDH ELR Contacts**
  - ➤ Ann Kayser, Ann.Kayser@state.mn.us
  - ➤ Sarah Boneske, Sarah.Boneske@state.mn.us
  - ➤ health.electronicdiseasereporting@state.mn.us
- **Additional Information**
  - ➤ https://www.health.state.mn.us/diseases/reportable/medss/elr.html
  - ➤ https://hl7v2-elr-testing.nist.gov/mu-elr/
  - ➤ https://www.cdc.gov/elr/how-to-implement-elr.html

Thank you.

Webinar materials: DSI website
(https://www.health.state.mn.us/data/interoperability/webinar.html)

Further questions: health.dsi@state.mn.us

ELR Reporting Questions: health.ElectronicDiseaseReporting@state.mn.us