

# Minnesota e-Birth Records Project:

Assessing Readiness for e-Birth Records Standards

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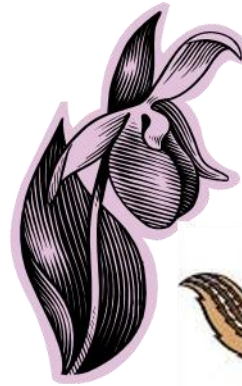
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# Minnesota

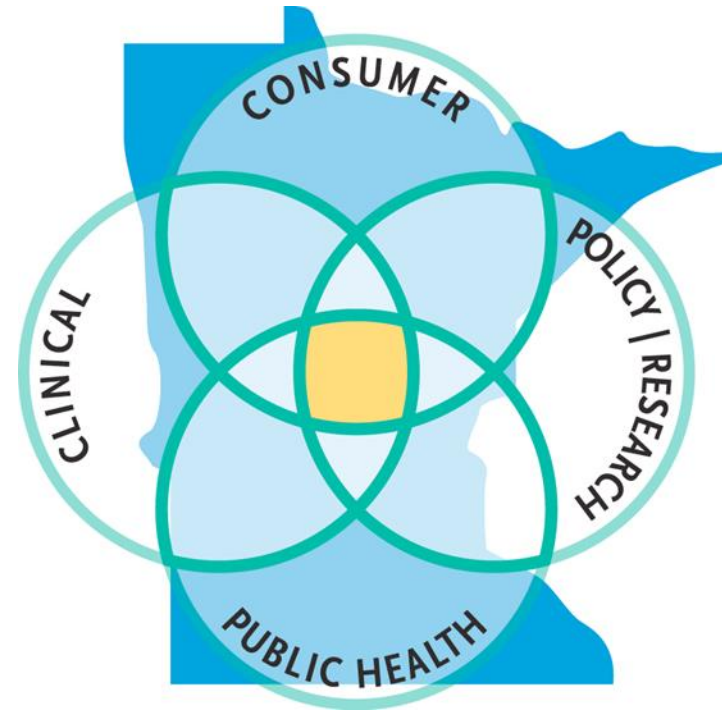
- 5.3 million Minnesotans in 87 counties
- 60% live in “Twin Cities”
- Separate state health and human services agencies
- Minnesota Registration and Certification System
  - Electronic Birth Reporting System
  - ≈ 68,000 births



# Minnesota e-Health Initiative

A public-private collaboration established in 2004

- Legislatively chartered
- Coordinates and recommends statewide policy on e-health
- Develops and acts on statewide e-health priorities
- Reflects the health community's strong commitment to act in a coordinated, systematic and focused way



“Vision: ... accelerate the adoption and effective use of Health Information Technology to improve **healthcare quality**, increase **patient safety**, reduce **healthcare costs**, and enable individuals and communities to make the best possible **health decisions**.”

# Minnesota e-Vital Records Initiative

- Collaborative effort to address opportunities and challenges of using electronic health record (EHR) systems and electronic health information exchange for collection and exchange of vital records information.
- Advisory Group provides guidance on projects including and interpretation of findings and recommendations
  - Local, state and federal experts in vital records, e-health and public health

# Introduction

- The Minnesota e-Birth Records Project evaluated the readiness of the Minnesota Department of Health (MDH) and Minnesota hospitals for secure electronic exchange of birth registration information using
  - Integrating the Healthcare Enterprise (IHE) Birth and Fetal Death (BFDR) Profile and
  - Health Level 7 (HL7) standard message and document specifications.
- Duration: September 2012 – April 2014

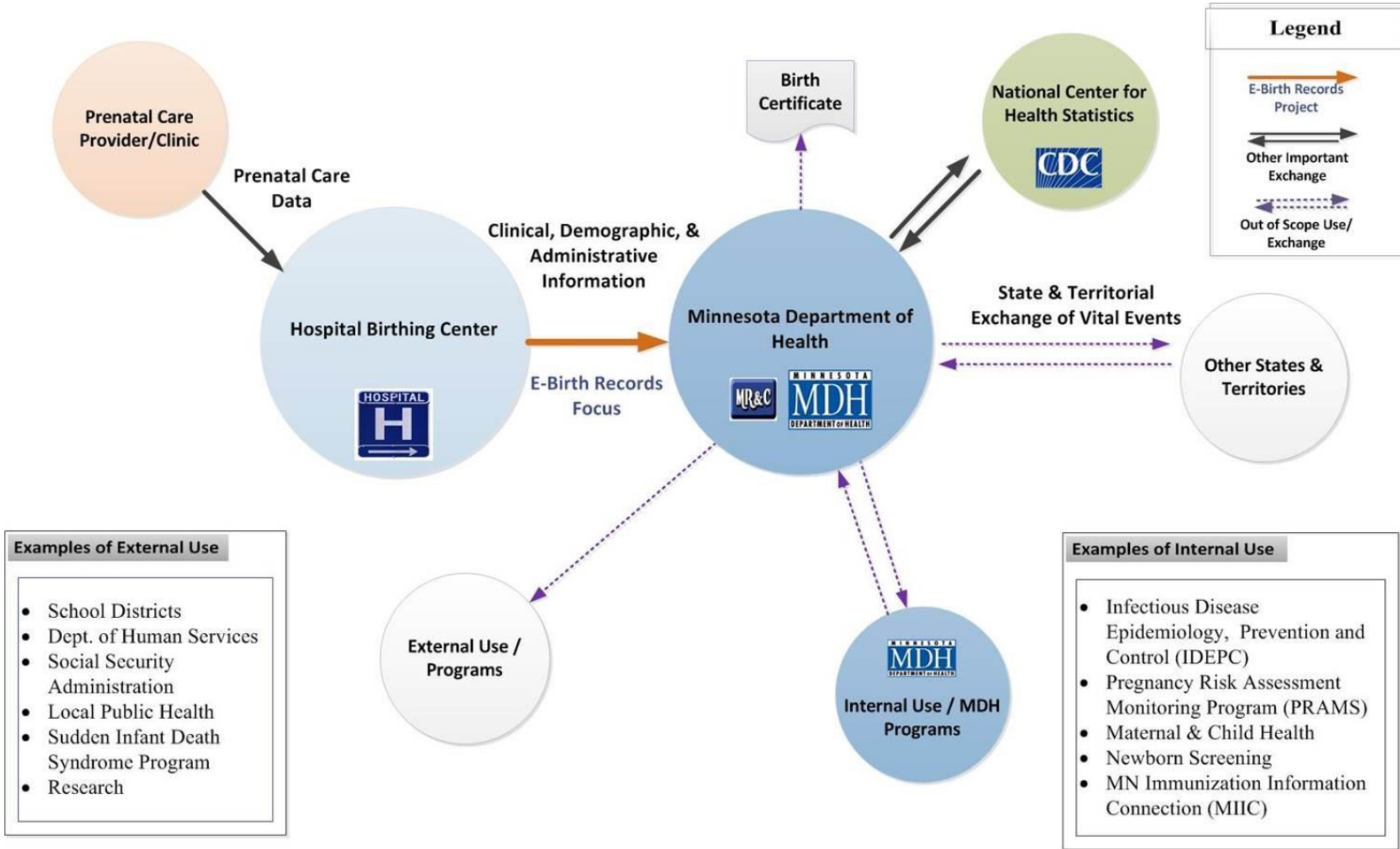
# Methods

- Collaborative Team Model
  - Office of Vital Records (MDH)
  - Office of Health Information Technology (MDH)
  - MN's central IT (MN.IT) at MDH
  - MDH Leadership
- Community Engagement
  - MN e-Vital Records Initiative Advisory Group
  - Partner Hospitals & Health Systems
    - Unity Hospital, Allina Health, Essentia Health
  - Community of Interest
  - Meetings and Presentations

# Study Approach

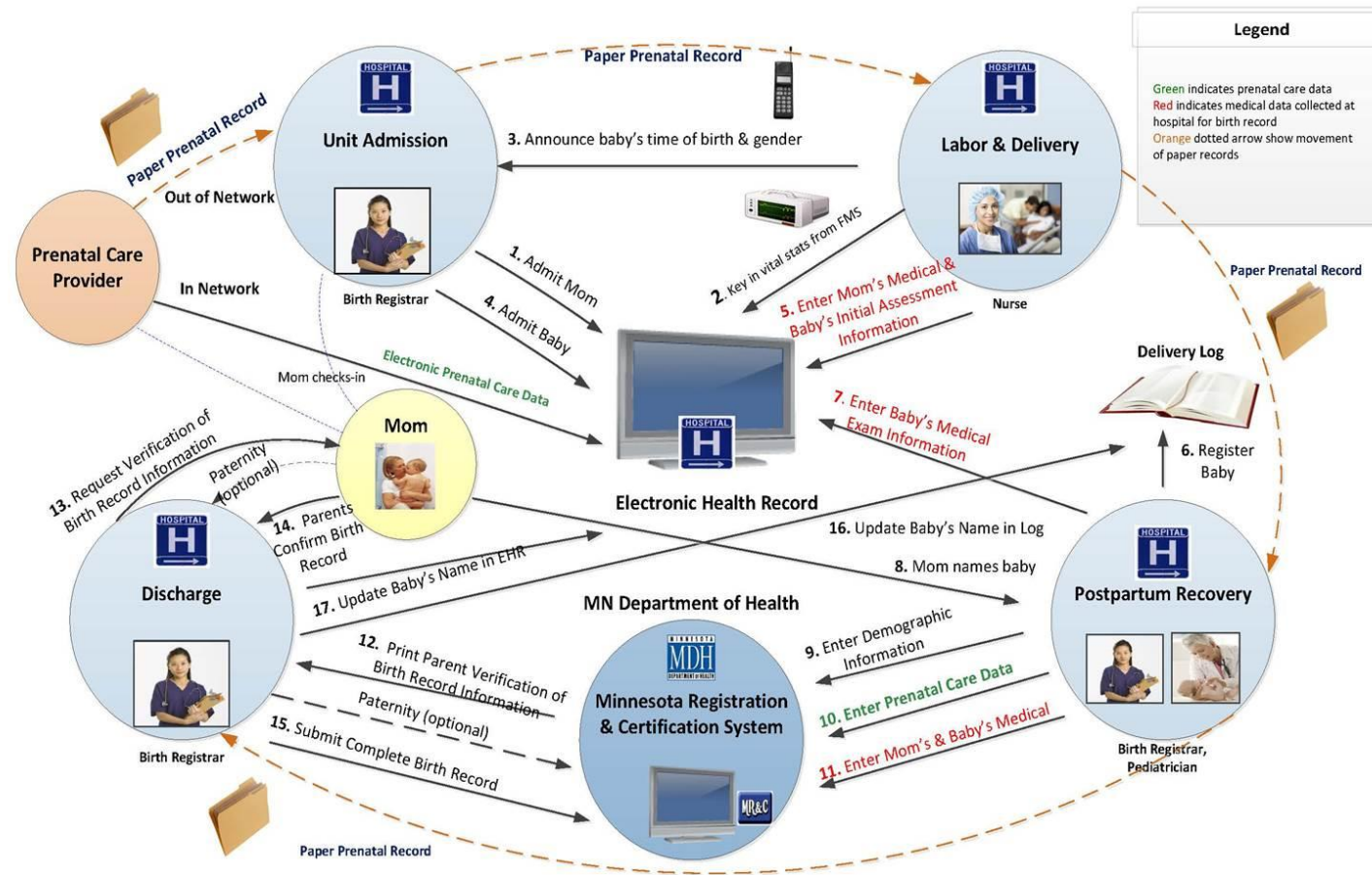
Approach	Activity Summary
<b>Analyze Information, Technology , Workflow and Organizational Components</b>	<ul style="list-style-type: none"><li>▪ Compare data standards and collection tools</li><li>▪ Test proof of concept between partners</li><li>▪ Describe birth records process at MDH and partner hospital</li></ul>
<b>Develop and Validate Models (Current and Future)</b>	<ul style="list-style-type: none"><li>▪ Develop models incorporating information, technology and workflow components</li><li>▪ Leverage stakeholders to reaffirm and identify themes and variances in current and proposed models</li></ul>
<b>Discover Opportunities for Improvement</b>	<ul style="list-style-type: none"><li>▪ Identify opportunities for improvement in the information, technology and workflow components in current and proposed models</li></ul>

# MN Birth Records Information Flow





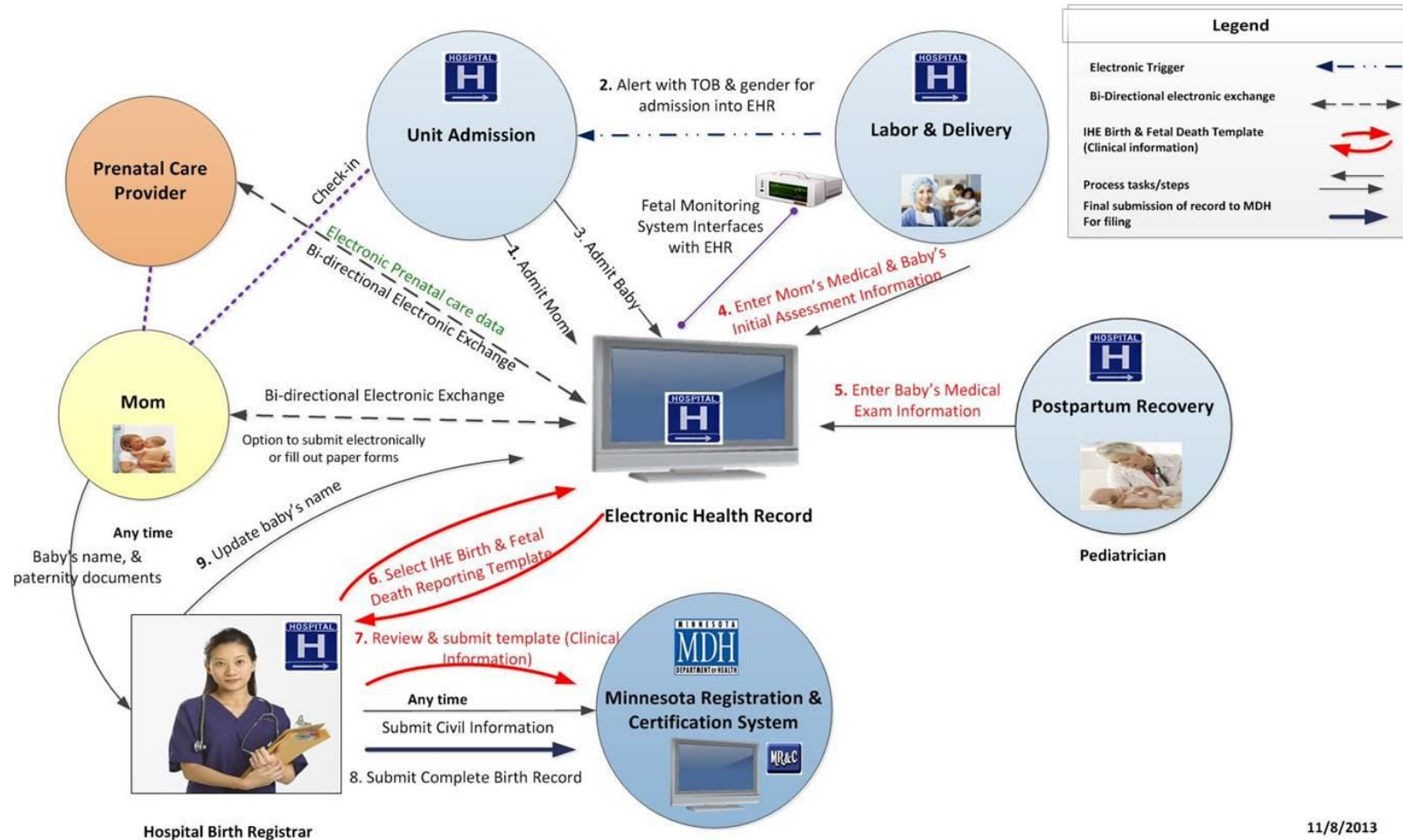
# Current Hospital Birth Registration Process



# Opportunities for Improvement

- Structured data capture (IHE BFDR Profile)
- Bi-directional exchange
  - Clinic, hospital, mom, MDH
- Interface fetal monitoring system
- Electronic capture of civil information (mother's worksheet)
- Eliminate reliance on delivery logs
- Electronic source for paternity document

# Proposed Hospital Birth Registration Process



# Implications for Office of Vital Records

- Update policies on data collection and use
  - Harmonize national standards with Minnesota-specific questions and value sets
  - Understand and document data use and needs
- Recognize and assure staff/resources for HL7 and IHE BFDR Profile
- Acknowledge connection to fetal death and death reporting
- Incorporate e-Vital Records into planning and daily work

# Key Findings

- MDH and hospitals support the adoption of e-birth records standards but lack the readiness to fully test and implement the e-birth records standards.
- Four key contributing factors contributing to the lack of readiness:
  - Policies are not in place to support using e-birth records standards for collection of civil and medical information.
  - Current incentives through meaningful use and health reform do not directly support the implementation of e-birth records standards
  - All birth registration data is not in the EHR nor always available as structured
  - The IHE BFDR Profile has been tested with only one EHR product

# Recommendations

- **Align policies to support using e-birth records standards.** Hospital, jurisdictional and NAPHSIS policies need to be aligned to support e-birth records standards. NAPHSIS should lead this work with technical assistance from NCHS.
- **Leverage activities of the Office of National Coordinator (ONC) and other federal activities.** Although current federal activities do not support e-birth records standards, activities and strategies of the ONC and other others should be leveraged to advance e-birth records standards through certification of EHRs and electronic birth reporting systems (EBRS).

# Recommendations

- **Continue expansion and testing of e-birth records standards.** Continue expansion and testing of the e-birth records standards led by NCHS with stakeholder engagement including hospitals, jurisdictions' Office of Vital Records, EHR, EBRS, and HIT vendors, the ONC and other providers, such as prenatal care clinics.
- **Provide resources and technical assistance for readiness and implementation.** The findings emphasized the need for resources and technical assistance for Offices of Vital Records and hospitals to prepare for the implementation of e-birth records standards. Create tools, templates, and training along with NCHS or NAPHSIS staff assistance.

# Recommendations

- **Demonstrate the value of and build stakeholder support for e-birth records standards.** The project identified the need to communicate the value of e-birth records standards. Targeted communication about the value of e-birth records standards to hospitals, Offices of Vital Records, prenatal care providers and public health.
- **Build Offices of Vital Records' e-birth records capacity.** In addition to participating in the above recommendations, all Offices of Vital Records should prepare for e-birth records by building e-birth records capacity such as employing an informatics-savvy workforce and engaging in agency discussion on health information exchange.



# Recommendations

- **Implement opportunities for improvement.** In addition to assessing the readiness of the e-birth records standards, the project also identified opportunities for improvement for hospitals and MDH. These opportunities can be share with other hospitals and Offices of Vital Records and implemented with ongoing feedback and continuous learning.

# Conclusion

- This project revealed support for adoption and use of e-birth records standards.
- Addressing the factors contributing to the lack of readiness and implementing the recommendations will require the effort of the entire vital records community and its partners.
- The support of e-birth records standards will strengthen the vital records system to document the lives and improve the health of all people.

# Acknowledgements

- MN e-Vital Records Initiative Advisory Group
- NCHS
- Essentia Health
- Unity Hospital
- Allina Health
- MDH Office of Vital Records
- MDH Office of Health Information Technology