North Dakota
Health Information Technology
Quality Healthcare for all North Dakotans - Anywhere, Anytime

Clinical Workgroup

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Document Control

Once the Project Plan is formally approved, changes must be requested utilizing the Integrated Change Control Process. Upon approval of requested modifications the version number will increase by one and the following information documented in the table below:

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1 Overview

The North Dakota Health Information Exchange (ND-HIE) is committed to implementing a secure statewide health information exchange of "protected health information"("PHI") that is consistent with state and federal privacy and security laws as well as the Principles articulated in the Office of National Coordinator for Health Information Technology's, *Nationwide Privacy and Security Framework for Electronic Exchange of Individually Identifiable Health Information* ("Privacy and Security Framework").

A Clinical Workgroup has been formed to make recommendations to the ND-HIE on the following:

- Strategy to support health Information Technology (IT and HIE adoption and meaningful use among North Dakota providers.
- Develop and execute evaluation of project including data collection and performance measurement
- Define high-value/high priority uses and/or use cases for HIE consistent with proposed meaningful use of certified electronic health record technology and additional clinical priorities.
- Strategy for the statewide HIE infrastructure to address high-priority use cases and clinical objectives

2 Introduction

2.1 Purpose of this document

The purpose of the document is to define the charter, statement of work, and scope for the Clinical Workforce team.

2.2 List of Related Documents

The following documents are important to this project and provide additional information for review.

Table 1: Related Documents

Document Name	Version/Date
Health Information Exchange Strategic and Operation Plan (SOP)	06-December 2010

2.3 Acronyms

Table 2: Acronyms

Acronym	Description
AHRQ	Agency for Healthcare Research and Quality
CDC	Centers for Disease Control and Prevention
CFR	Code of Federal Regulations
DHHS	Department of Health and Human Services
GINA	Genetic Information Nondiscrimination Act
HIPAA	Health Information Portability and Accessibility Act
HITAC	Health Information Technology Advisory Committee
HITECH	Health Information Technology for Economic and Clinical Health
ND-HIE	North Dakota Health Information Exchange
PHI	Protected Health Record
RTI	Response to Intervention
eMPI	Enterprise/Master Patient Index
SOP	Strategic and Operational Plan

3 Clinical Workforce Team

The Health Information Technology Advisory Committee (HITAC) has formed a Clinical Workforce Team to provide assistance during the implementation of the North Dakota HIE Strategic and Operational Plan.

3.1 Charter/Mission

The Clinical Workforce Team is committed to improving health care in North Dakota by supporting health information technology and exchange efforts in the State of North Dakota. The Clinical Workforce team will promote and/or endorse electronic health record system functionality as well as system interoperability standards. The team will assist and guide the healthcare community and work with other HIE Domains and Workforce teams to communicate and coordinate this information to ensure successful exchange of data.

3.2 Primary Work Activities

The primary work activities of the Clinical Workforce team are as follows:

- Gather information about priorities for clinical improvement programs, plans and outcomes for stakeholders, including but not limited to CMS, State Health Plan, Regional Extension Center, HRSA and other location/regional initiatives, and other states' initiatives in order to facilitate communication, coordination and alignment of priorities and efforts.
- Develop use cases that address that address transitions in care and referrals. At a minimum, the use cases will include exchange of clinical information at the point of care throughout the state for primary care (adult and pediatric) ambulatory, acute care inpatient hospital settings, and emergency departments.
- Consider at all times the patient's perspective:
    - Does the patient understand the benefits and risks?
    - Does the patient desire information to be made exchanged?
    - What data is available at the point of care?
    - Who has access to the information and for what purpose?
- Ensure that the clinical quality information fed back through the exchange is meaningful to consumers and helps them understand and partner with their physicians to get the care they need most
- The Meaningful Use objectives should be considered in identifying (and prioritizing, if appropriate) data elements.
- Clinical priorities should align with those determined by the State Health Plan and Regional Extension Center.

3.3 Key Deliverables

Key deliverables and expected outcomes from the Clinical Workgroup are as follows:

- List of Clinical Priorities for the ND HIE and proposed measures of tracking.
- Plan for coordination of ND-HIE Clinical Priorities, State SOP, State Health Plan, Regional Extension Center priorities and Meaningful Use requirements.
- Adopt Continuity of Care Record (CCR) data set - foundation for HIE content
- A list of prioritized data elements for exchange through the statewide HIE system that will support point of care(POC) in the primary ambulatory care settings, acute care inpatient settings and emergency departments, including list of key primary care dashboard elements needed to track and improve quality of care for clinical priority conditions at the point of care.
- A list of core quality metrics needed for online feedback to primary care providers of regular registry patient panel reports.

3.5 Meeting Schedule

The Clinical Workgroup will initially meet bi-weekly or monthly. Meeting frequency is subject to change based on need.

3.6 Project Plan and Timeline

The following timeline is to complete the initial work for the key deliverables. After initial completion of these activities, the committee will regularly revisit these work products, re-evaluating them and revising as necessary.

Need to develop a timeline/verify deliverables

- List of Clinical Priorities for the ND HIE and proposed measures of tracking.
- Plan for coordination of ND-HIE Clinical Priorities, State SOP, State Health Plan, Regional Extension Center priorities and Meaningful Use requirements.
- Adopt Continuity of Care Record (CCR) data set - foundation for HIE content
- A list of prioritized data elements for exchange through the statewide HIE system that will support point of care(POC) in the primary ambulatory care settings, acute care inpatient settings and emergency departments, including list of key primary care dashboard elements needed to track and improve quality of care for clinical priority conditions at the point of care.
- A list of core quality metrics needed for online feedback to primary care providers of regular registry patient panel reports.

4 Privacy and Security

The State of North Dakota HIE should ensure all systems and services are fully compliant with all HIPAA regulations, and utilize standards based security mechanisms, including standardized encryption technologies. Industry-proven technologies such as Federated Identity Management with Role Based Access Controls should be considered for adoption to ensure data security and integrity. A high level of encryption, including Public Key Infrastructure (PKI) should be considered as an encryption standard, as well as the process of encrypting each and every message, regardless of location of the system (including within the HIE system). The utilization of standards based encryption technologies such as PKI will ensure authenticity and non-repudiation of data by digitally signing each and every message.

Utilization of a Federated Identity Management Service, along with Role-Based Access Control (RBAC) framework, information and data is available to be shared across wide area security domains. Additionally, any and all security processes and systems should comply with any and all local, state and Federal laws (for example, the State of Minnesota has a strict Record Locator Law, with Patient Consent Management and opt-in opt-out services).

Integration of HIE services with a Federated Identity Management System, with Public Key Infrastructure and Role-Based Access Control, allows for interoperable clinical data exchange globally, with management retained locally.

4.1 Patient Consent Management

It is critical for the State of North Dakota Statewide HIE to have a Patient Consent Management system integrated into the Statewide HIE infrastructure. The ability for a patient to electronically, or via paper, opt-out of the Statewide HIE is an extremely critical workflow that the State should consider for inclusion into the HIE infrastructure.

4.2 Enterprise/Master Patient Index

In order to support Inter-HIE patient discovery, the North Dakota Statewide HIE can implement an eMPI, or Enterprise Master Patient Index, as a part of the core offering of the Health Information Exchange. If implemented, the eMPI should be fully integrated with the HIE offerings and systems, to allow for HIE-wide patient matching. For example, the eMPI should fully interact with the Record Locator Service to establish the mutual identity between patients from the local HIE, as well as other HIEs. The risks of not implementing an eMPI include having multiple records and patient data for the same patient that are not matched and utilized / coordinated for care.

4.3 Clinical Data Exchange

The State of North Dakota HIE could provide HIPAA-compliant clinical data exchange in both standard data formats, including CCR (Continuity of Care Record) and CCD (Continuity of Care Document). CCD has been selected as the standard for the Federal Health Architecture and NHIN, thus it is highly recommended that the State of North Dakota implement the CCD standard for clinical data input and output and clinical data exchange. Providers who are incapable of exporting and importing CCD documents from their EMR systems will either need to upgrade their EMR systems to allow for full CCD interoperability, or implement a custom translator service/interface for CCD compliancy. The State of North Dakota HIE should be aware of CCD interoperability as a substantial risk, as many providers who have an EMR are not capable of CCD compliancy, and the costs can be somewhat prohibitive to implement full CCD compliancy, especially for smaller providers and healthcare entities.

4.4 Record Locator Service

Modern patient care techniques and services demand instant access to a patient's disparate healthcare information. Instant access is realized with a system that accurately identifies all related information for an individual automatically, without human intervention. In general, a ―Record Locator Service‖, or RLS, can be defined as an electronic index of patient identifying information. This RLS information directs providers to the location of the patient health records (usually held by healthcare organizations). Typically, the two core capabilities of an RLS are:

- Identifying a patient within a community (HIE or RHIO) and/or in a remote communities and
- Identifying the location (communities and/or healthcare provider facilities) of a patient's clinical data.

Users search for a patient with full or partial demographic information including first name, last name, date of birth, gender and zip code, and other search criteria.

5 Meaningful Use

The Department of Health and Human Services (HHS) and the Office of the National Coordinator (ONC) for Health Information Technology (HIT) and Centers for Medicare and Medicaid Services (CMS) have recently released the Meaningful Use (MU) final rule specifying the related initial set of standards, implementation specifications, and certification criteria for Electronic Health Record (EHR) technology with final Meaningful Use Stage 1 objectives and measures. This document fully recognizes the final rules along with Meaningful Use Stage 1 objectives and measures. It also recognizes the technical infrastructure reflecting meaningful use objectives and adopted standards, implementation specifications, and certification criteria in the design of an HIE architecture on planning of the initial set of services, the adoption of the initial set of standards, and implementation specifications realizing the initial set of services. Appendix A contains a table of summaries of the final rule for Meaningful Use Certification Criteria for Health Information Technology released by CMS and ONC. The last column of the table, —IHE Stage 1|| indicates a set of standards/implementation specifications recommended for content exchange, vocabulary, and security/privacy to be adopted for the first stage (Stage 1) of the Health Information Exchange (HIE) implementation as well as a set of capabilities to be offered at the Stage 1 of the HIE implementations. The following list identifies a minimum set of services to be offered for the Stage 1 aligned with general and ambulatory/inpatient specific capabilities as specified in the Meaningful Use final rule.

- Electronic Prescribing Service: Electronic generation and transmission of prescriptions and prescription related information
- Laboratory Results Exchange Service: Electronic submission of laboratory test orders and receiving/displaying of laboratory test results
- Exchange of Patient Summary Record in the format of HL7 CDA Release 2, Continuity of Care Document (CCD)[1] with following minimum data elements:
    - Demographics
    - Problem list
    - Medication & Medication Allergy List
    - Laboratory test results
    - Procedures

5.1 Stage 1 Meaningful Use Required Services

The North Dakota statewide HIE will enable all health care providers to meet the requirements of Meaningful Use as the federal regulatory scheme guidelines and deadlines evolve.

- e-Prescribing
- Clinical lab results electronically
- Health department immunizations, syndromic surveillance, and notifiable lab results
- CCD requirements for Stage 1 Meaningful Use including the exchange of data between disparate systems
- Quality reporting
- Payers connectivity
- Advance Directives

5.2 Stage 2 Meaningful Use Required Services

The North Dakota statewide HIE will enable all health care providers to meet the requirements of meaningful use as the federal regulatory scheme guidelines and deadlines evolve.

- Expanded Continuity of Care Documents – Stage 2

- Personal Health Records
- Electronic Health Record “Lite” application

6 Continuity of Care Document Provisions

The Continuity of Care Document contains 17 primary data fields. The North Dakota HIE plans to satisfy all Meaningful Use requirements by building the capacity to exchange all CCD data elements as defined for each stage of Meaningful Use.

1. Header: Defines the type of document being created, who the document is regarding (patient, physician, author) and how the document relates to other existing documents (if applicable).
2. Purpose: States the reason the document was generated, but only if a specific purpose is known (i.e., a referral, transfer, or by request of the patient).
3. Problems: Provides a list of relevant clinical problems, both current and historical, that are present for the patient at the time the document was created.
4. Procedures: Provides a list of all relevant and notable procedures or treatments, both current and historical, for the patient.
5. Family History: Gives relevant family health information that may have an impact on the patient's healthcare risk profile.
6. Social History: Describes the patient's lifestyle, occupation, and environmental health risks plus patient demographics such as marital status, ethnicity and religion.
7. Payers: Provides payment and insurance data pertinent to billing and collection, plus any authorization information that might be required.
8. Advance Directives: Includes information about wills, healthcare proxies and resuscitation wishes, including both patient instructions and references to external documents.
9. Alerts: Provides a list of allergies and adverse reactions that are relevant for current medical treatment.
10. Medications: Provides a list of current medications and relevant historical medication usage.
11. Immunizations: Gives information the patient's current immunization status plus pertinent historical information about past immunizations.
12. Medical Equipment: Provides a list of medical equipment and any implanted or external devices relevant to patient treatment.
13. Vital Signs: Details information about vital signs for the time period including at a minimum the most recent vital signs, trends over time, and a baseline.
14. Functional Stats: Detailed information about what is normal for the patient, deviations from the norm (both positive and negative) and extensive examples.
15. Results: Lists lab and procedure results, and at a minimum, lists abnormal results or trends for the time period.
16. Encounters: Details relevant past healthcare encounters including the activity and location.
17. Plan of Care: Lists active, incomplete or pending activities for the patient that are relevant for ongoing care – including orders, appointments, procedures, referrals and services.