

North Dakota Syndromic Surveillance Program Overview: Onboarding

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Division of Disease Control



NORTH DAKOTA
DEPARTMENT *of* HEALTH

BioSense 2.0 On-boarding Workgroup Meeting
March 4, 2015

North Dakota Background

National Rank:

- Population: 47th
- Land area: 19th
- Population growth: 1st
 - Energy-related economic growth
 - Large population of transient, non-resident workers



ND Syndromic Surveillance Program: Overview

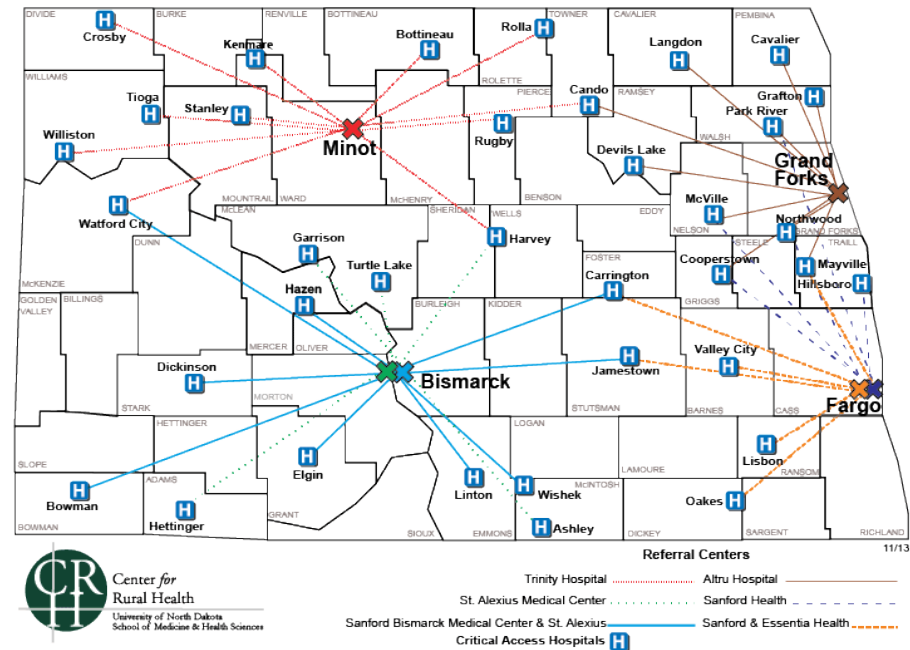
- Initiated summer 2003
- Use of two platforms over time (Red Bat, BioSense 2.0)
- Current System: BioSense 2.0 (data submission beginning spring 2014, Red Bat historical data)
- Past uses: situational awareness during flood events, foodborne outbreak case finding, routine ILI tracking



North Dakota Hospitals

- Six major hospitals
- Thirty-six critical access hospitals
- Two Indian Health Service facilities

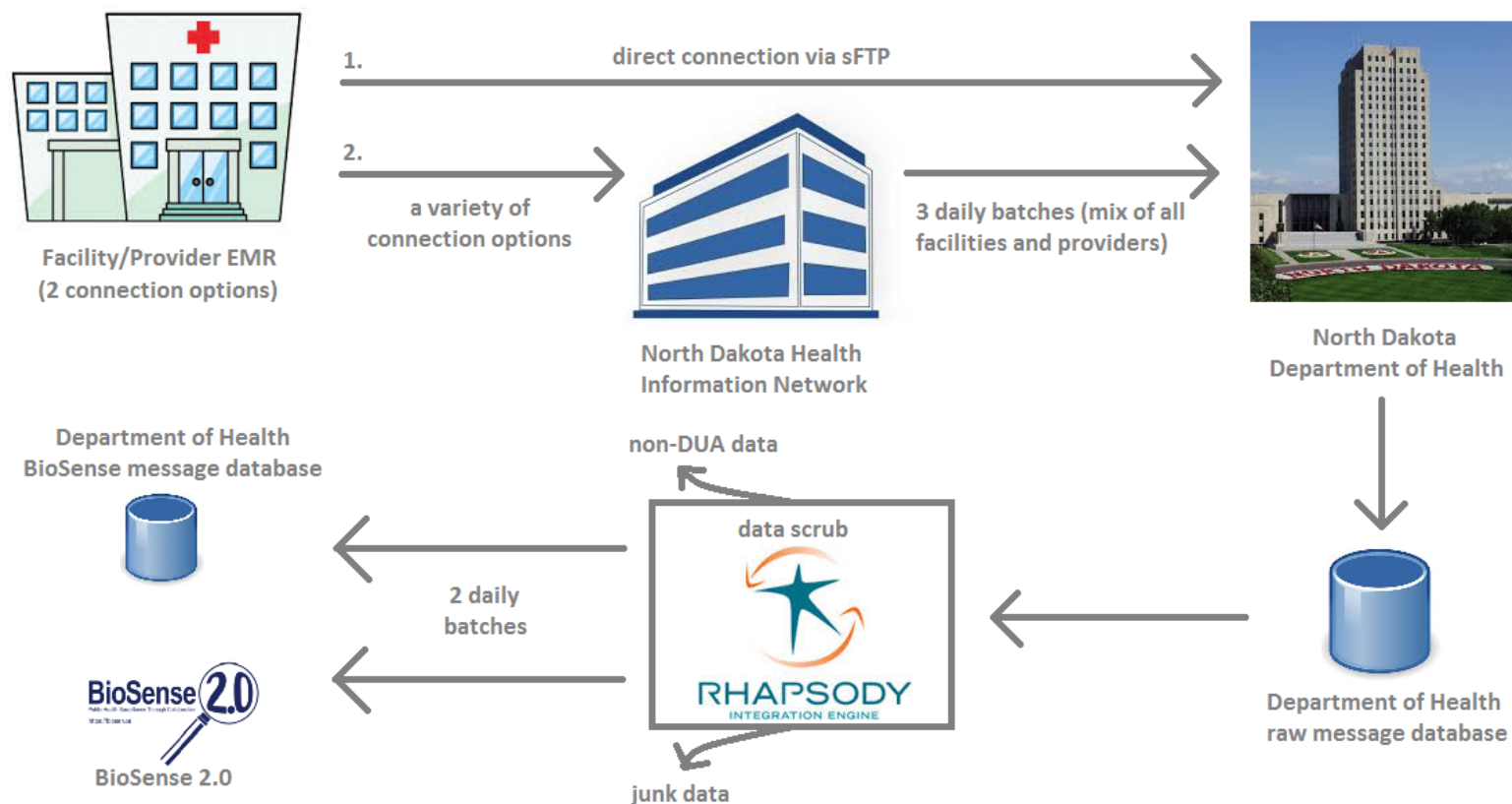
North Dakota Critical Access Hospitals & Referral Centers



North Dakota Meaningful Use

- The North Dakota Department of Health (NDDoH) has been able to accept HL7 format syndromic surveillance data from hospitals and ambulatory providers since 2012.
- Facilities may choose to connect directly to the health department or through the North Dakota Health Information Network (ND HIN).

North Dakota Syndromic Surveillance Data Flow



Onboarding Process

1. Registration of intent (ROI)
2. Verification of transport mechanism
3. Message validation
4. Production



ND Meaningful Use Website

Can be accessed directly from the main department website:

The screenshot displays the North Dakota Department of Health website. The header includes the state logo, the text 'NORTH DAKOTA DEPARTMENT of HEALTH', and a navigation bar with links for Community Health, Emergency Preparedness, Medical Services, Health Resources, Environmental Health, and Administrative Support. A search bar is located in the top right corner.

The main content area features a welcome message from Terry Dwelle, M.D., M.P.H.T.M., State Health Officer. To the left is a sidebar with various links including 'Contact Us', 'Health Topics A-Z', 'Department Overview', 'News Releases', 'Publications', 'Office of Public Health Systems and Performance', 'Healthy North Dakota', 'Health Data Resources', 'Health Equity Office', 'Human Resources', 'Loan Repayment Program', 'Training/Video Conferencing', 'CAFO Zoning Ordinances', 'Program Reporting System', 'Executive Office', 'State Health Council', and '2015-17 Biennial Legislative Testimony'.

Below the welcome message, there are two sections: 'Health Indicator Dashboard' and 'Environmental Incident Reports'. The 'Health Topics A-Z' section is also visible, with the instruction 'Navigate the website by topic'.

On the right side, there are two vertical lists of links. The 'Frequently Requested' list includes 'Birth/Death/Marriage Certificates', 'Immunizations', 'Environmental Issues', 'Health Alerts', 'Women's Way', 'Nursing Homes', 'Disease Fact Sheets', and 'NDQuits Tobacco Cessation'. The 'Current Issues' list includes 'TENORM', 'Ebola Outbreak', 'Meaningful Use' (which is circled in red), 'Minot Hepatitis C Outbreak', '2012 Smoke-Free Law', and 'Permitting and Approval Requirements for Modular Package Wastewater Treatment Plants and Other Wastewater/Water Supply Infrastructure – August 30, 2013'.

ND Meaningful Use Website

Meaningful Use:

The North Dakota Department of Health (NDDoH) - Division of Disease control has the capability to receive electronic messages to help facilities meet Meaningful Use. The meaningful use menu objectives that could be met with this electronic messaging would include:

- Provide electronic submission of reportable laboratory results to the state public health agency for hospitals only
- Provide electronic syndromic surveillance data to the state public health agency for eligible professionals and hospitals
- Submit electronic data to immunization registries for eligible professionals and hospitals

To learn more about meaningful use [click here](#)

If your facility is interested in interfacing with Public Health please fill out this [form](#) or call 701.328.2378

- [Electronic laboratory reporting \(ELR\)](#)
 - Electronic Laboratory Reporting (ELR) is the electronic transmission from reporting laboratories or facilities to NDDoH for the mandatory reportable conditions. Electronic Laboratory Reporting (ELR) is the automated transmission of positive mandatory reportable condition laboratory results from public/private laboratories or facilities to the Division of Disease Control.
 - [Registration of Intent](#)
- [Immunization](#)
 - Immunization Information Systems (IIS) are confidential, population-based, computerized information systems that attempt to collect vaccination data about all children within a geographic area.
 - [Interoperability Documents](#)
- [Syndromic Surveillance](#)
 - Syndromic surveillance allows public health to monitor syndromes, or collections of symptoms, over time to quickly and accurately detect outbreaks or monitor diseases, disorders, or conditions.
 - [Registration of Intent](#)
- [Meaningful use](#) (CDC)



ND Meaningful Use Website

ND syndromic surveillance web page includes information on:

- Message structure
- Transport
- Links to specification guides
- Link to the web-based registration of intent
- Special information for people connecting via the ND HIN
- Syndromic contact information

Syndromic Surveillance

Syndromic Surveillance messaging allows both outpatient and inpatient facilities to report chief complaint or reason for visit-type data to the North Dakota Department of Health (NDDoH) Division of Disease Control using an automated and secure process for the purpose of early detection of potential disease events. NDDoH is able to accept both test and continuous messaging from hospitals and ambulatory providers looking to fulfill requirements for stages one and two of Meaningful Use for Syndromic Surveillance.

Getting Started

First, your facility will need to determine if the facility's Electronic Health Record (EHR) can send an electronic file in Health Level 7 (HL7) format. Disease Control will accept ADT messages in either HL7 version 2.3.1 or HL7 version 2.5.1, with preference given to 2.5.1 when possible. Please use the following resources for specific information on expected message content and structure:

- [PHIN Messaging Guide for Syndromic Surveillance](#) Provides detailed information on the national standard for expected message content, structure, and transport.
- [North Dakota Condensed Specification Guide](#) Designed as a quick reference guide for providers or vendors with an existing understanding of HL7 message structure and transport, this short guide includes instructions on connecting with the North Dakota Department of Health and a table with required fields for North Dakota.

These guides can be used by both facilities and ambulatory providers. NDDoH knows ambulatory providers may be concerned that the information they have to send is slightly different. In our experience, our ambulatory providers have been able to use these guides with little modification to the standard message structure. We will work with providers during the testing phase to ensure we are receiving the information that is most vital for the purposes of meaningful use public health objectives. Although Disease Control will be available to provide some assistance with mapping, the provider IT personnel and software vendors will be responsible for most of the coding and implementation.

Next, providers must decide how they will connect with the North Dakota Department of Health. North Dakota has identified two connection options:

- Secure File Transfer Protocol (sFTP) is utilized to create a direct connection between your facility/practice and the NDDoH.
- Facilities/providers may connect to NDDoH via a connection through the North Dakota Health Information Network (ND HIN). Providers/vendors wishing to connect to NDDoH through a connection with the ND HIN are responsible for establishing their connection to the HIN independently.

Generally, NDDoH expects to receive messages at least once per day for every day the facility is open. NDDoH sends information to our syndromic surveillance system three times per day, so large facilities may be asked to send information two or three times per day if possible.

Registration of Intent

Providers or vendors ready to begin working with NDDoH on Meaningful Use Syndromic Surveillance objectives must register their intent to do so. An online registration of intent may be submitted [here](#). After your registration of intent has been received, you will immediately receive a confirmation email. Following this, NDDoH will contact you directly to begin the onboarding process.

For Facilities and Providers Planning on Connecting via the HIN for Meaningful Use Stage Two

Although the ND HIN will assist with setting up your syndromic feed, it is important to remember that the HIN does not represent NDDoH. **You will still work with NDDoH directly when completing your Syndromic Surveillance connection.** Please be aware that queueing, onboarding, and being in production status with the ND HIN is not equivalent to queueing, onboarding, and being in production status with NDDoH or the NDDoH Syndromic Surveillance Program. Facilities and providers wishing to connect to NDDoH through the ND HIN **will not** receive an exception because they are waiting to work with the ND HIN. Facilities and providers who wish to attest for Meaningful Use Syndromic Surveillance measures before their connection with the HIN is established have the option to connect directly with NDDoH using SFTP. This connection can then be moved to the ND HIN once the ND HIN syndromic feed is established. **It is the responsibility of the facility/provider to work with the ND HIN to ensure work initial work on establishing your syndromic feed is compatible with your attestation timeline.**

Contact

If you have questions or require additional information not addressed on this page, please contact Jill Baber, Syndromic Surveillance Coordinator for the North Dakota Department of Health at jbaber@nd.gov or call 701.328.2378.

1. Registration of Intent

Web-based registration of intent for continuous submission accessed by checking a box indicating readiness.

North Dakota Department of Health Meaningful Use Registration of Intent for Electronic Laboratory Reporting and Syndromic Surveillance

Facilities and providers that wish to attest for the electronic laboratory reporting and/or the syndromic surveillance meaningful use Stage 2 objectives must first register their intent to do so with the applicable Public Health Authority (PHA), per the guidelines developed by the Centers for Medicare & Medicaid Services (CMS). The North Dakota Department of Health (NDDoH) has developed the following registration processes:

For Meaningful Use stage one: when you are ready to submit a stage one test message, contact NDDoH at disease@nd.gov, put "Meaningful Use" in the subject line, and provide your contact information and indicate the measures for which you would like to attest in the body. We will then contact you to set up receipt of your stage one test message. No formal registration of intent is required.

For Meaningful Use stage two: when you are ready to begin the onboarding process for ongoing submission with NDDoH, or will be ready within the first sixty days of the next or current EHR reporting period, you must register your intent by submitting the form linked at the bottom of this page. In order to access this form, you must indicate that you have fulfilled our requirements for onboarding by checking the box below. If you do not fulfill the requirements but register your intent to do so regardless, your registration of intent may be rejected by NDDoH. If your registration of intent is rejected, you will need to submit your registration of intent again when you meet our requirements to register for onboarding. **Please note: you should not register your intent with the expectation to be queued for onboarding. North Dakota is a small state, and the wait time to onboard is usually very short.**

Meaningful Use stage 2 checklist

Please complete the checklist to access the NDDoH registration of intent form for Electronic Laboratory Reporting and/or Syndromic Surveillance measures. For directions on how to connect with the NDDoH Immunization Registry, please go here: <http://www.ndhealth.gov/immunize/interop/>

☒ My facility/provider is ready to begin testing and validation for the measure(s) they wish to attest for now, OR my facility/provider will be ready within the first 60 days of their EHR attestation period, OR my facility/provider is not currently attesting for Meaningful Use public health measures at this time but would like to begin participating in the NDDoH Electronic Health Record and/or Syndromic Surveillance program and is ready to begin testing and validation now.

Facilities/Providers should not register with the expectation to be queued. Facilities/providers connecting via the North Dakota Health Information Network (HIN) are responsible for verifying with the HIN that they will be ready to send test messages within their attestation time frame. The HIN is not a PHA, and connection with the HIN does not automatically equate to a connection with NDDoH.

Please note: you must check the above box to register your intent for Stage 2 measures. By checking this box, you are officially indicating to the North Dakota Department of Health that you are ready to begin the onboarding process, or will be ready in the first 60 days of your attestation period. The North Dakota Department of Health reserves the right to reject your registration of intent at a later date if we discover you are not prepared to begin the onboarding process.



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Registration of Intent Submission

☒ My facility/provider is ready to begin testing and validation for the measure(s) they wish to attest for now, OR my facility/provider will be ready within the first 60 days of their EHR attestation period, OR my facility/provider is not currently attesting for Meaningful Use public health measures at this time but would like to begin participating the the NDDoH Electronic Health Record and/or Syndromic Surveillance program and is ready to begin testing and validation now.

Facilities/Providers should not register with the expectation to be queued. Facilities/providers connecting via the North Dakota Health Information Network (HIN) are responsible for verifying with the HIN that they will be ready to send test messages within their attestation time frame. The HIN is not a PHA, and connection with the HIN does not automatically equate to a connection with NDDoH.

Please note: you must check the above box to register your intent for Stage 2 measures. By checking this box, you are officially indicating to the North Dakota Department of Health that you are ready to begin the onboarding process, or will be ready in the first 60 days of your attestation period. The North Dakota Department of Health reserves the right to reject your registration of intent at a later date if we discover you are not prepared to begin the onboarding process.

Registration for (select all that apply)

☐ Electronic Laboratory Reporting

☐ Syndromic Surveillance

Organization Information

Organization/Provider Name:

Electronic Health Record (EHR) Vendor:

Organization/Provider Address:

City

State ND

Zip Code

Primary Project Contact

Last Name

FirstName

Title

Phone

Email

I work for the Vendor ☐ Yes ☐ No

I work for the provider/facility ☐ Yes ☐ No

Back-up Project Contact

Last Name

FirstName

Title

Phone

Email

I work for the Vendor ☐ Yes ☐ No

I work for the provider/facility ☐ Yes ☐ No

Connection Information

Which transport mechanism do you plan on using for connection?

☐ Direct SFTP Connection

☐ Connection via NDHIN

What is the date for the beginning of the reporting period for which you would like to attest?

Are you ready to start onboarding/testing right now?

☐ Yes ☐ No

If no when will you be ready?



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Registration of Intent

Challenge: North Dakota is a small state and does not have a queue for onboarding. Some facilities, especially small facilities, have registered with the expectation that they will have additional time to prepare. Also facilities have limited control over the timeline of the ND HIN.

Solution: No real solution—we cannot say whether or not a facility has or has not met the standard. Everyone who registers is immediately invited to begin the validation process once their reporting period begins.



Registration of Intent Auto Response for Facilities

Meaningful Use Submission Processed:

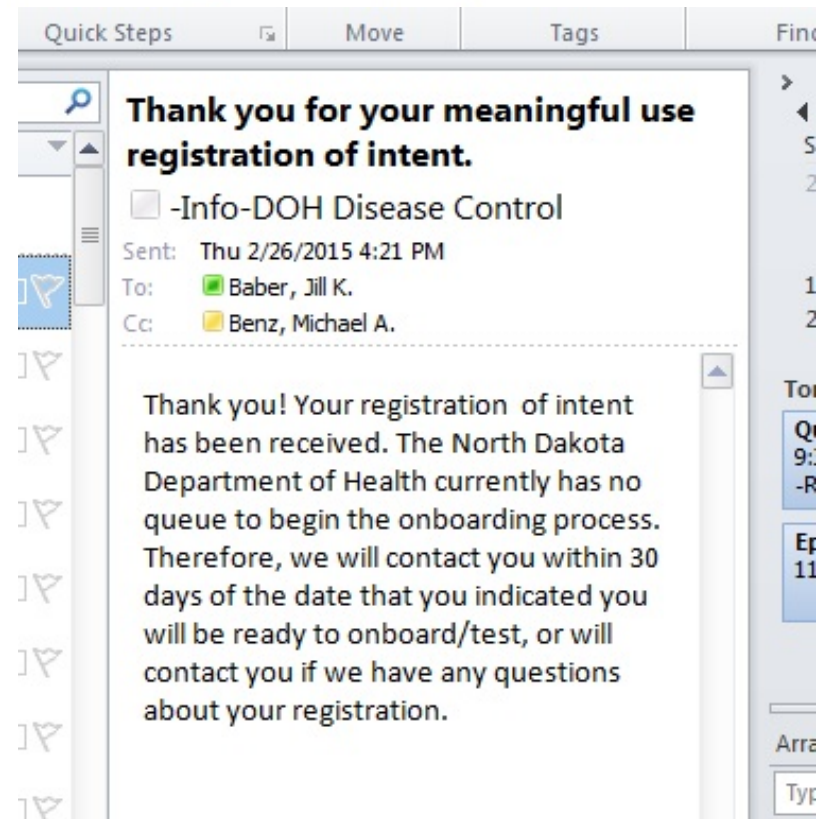
Thank you! Your registration of intent has been received. The North Dakota Department of Health currently has no queue to begin the onboarding process. Therefore, we will contact you within 30 days of the date that you indicated you will be ready to onboard/test, or will contact you if we have any questions about your registration.

Registration prompts both a web-based and email confirmation for the registrant.

Best practice: Automation

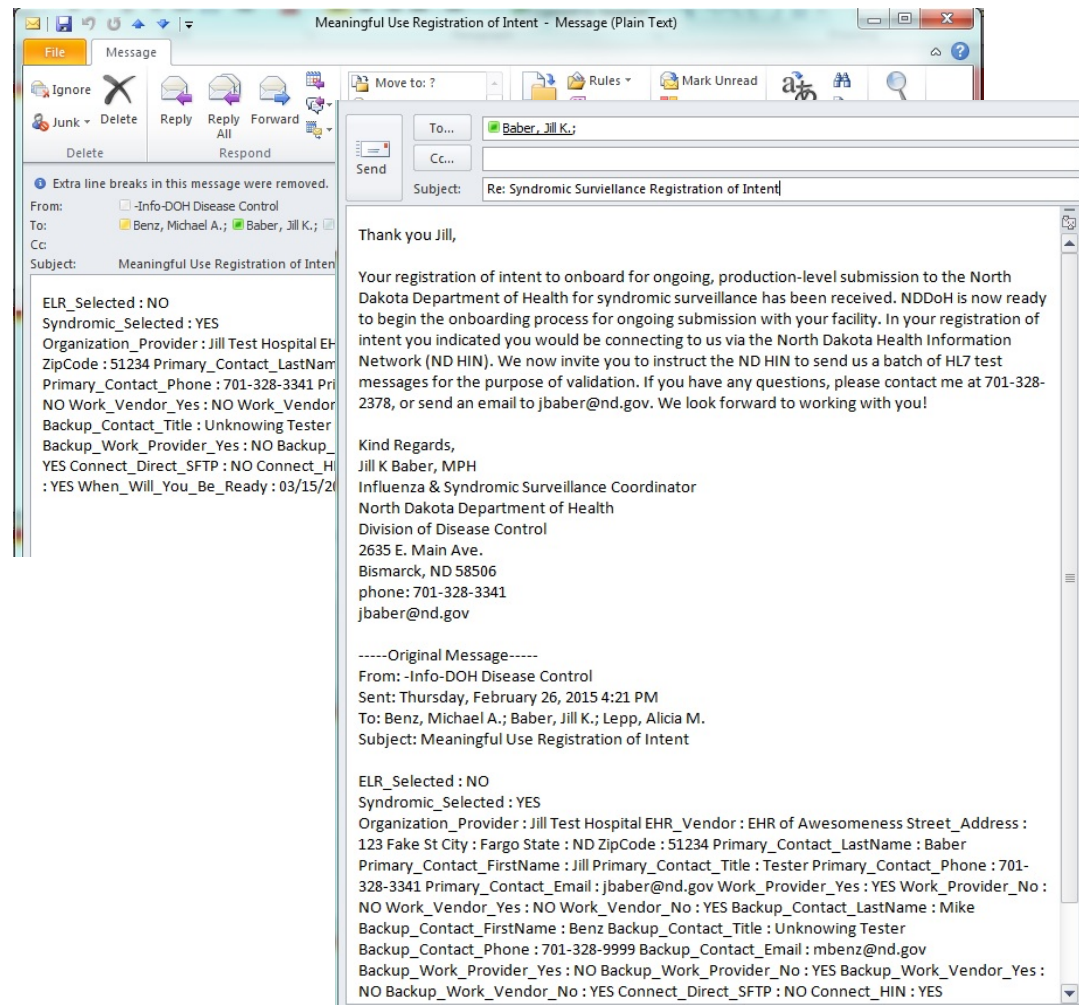


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Registration of Intent Email Alert for Health Department

- The registration form is automatically emailed to the ND syndromic, ELR, and technical coordinators.
- The proper coordinator then stores the response and forwards a reply to the registrant acknowledging registration and inviting them to begin testing and validation.
The result: lots of documentation for us and the provider!
- If the registrant has indicated they would like to begin at a later date, the reply is delayed until that date.



2. Verification of Transport Mechanism

- ND = no onboarding queue!
- If a direct connection is indicated, work to establish that connection would begin now (**hypothetical**).
- If connection through ND HIN, determine how close the facility/provider is to completing the connection.
 - Ideally, connection should be established at time of registration.
 - Realistically, facilities register regardless of ND HIN status (meeting a deadline, etc.)
 - Participation on weekly ND HIN calls.

3. Message Content Validation

Step 0: Messages are translated into an Excel spreadsheet using Rhapsody.

- Similar to the process for production data, without the stripping of date of birth.
- From Excel, messages can be manipulated, analyzed.

Meanwhile: Additional facility/provider-specific information, gathered during initial validation.

Best Practice: Bi-weekly meetings scheduled, combination of syndromic and ELR.



Message Content Validation

Step 1: Are messages formatted correctly?

- Visual inspection in Excel <--> raw message bank
- PHIN MQF validation/parsing tool
- Typically, no problems here

Message Content Validation

Step 2: Do messages contain the required information?

- Excel analysis of required fields (moving to SAS)
- Feedback to primary contact from ROI via email
- Typically, problems here
- Usually the most time consuming step: poor content and poor communication can stretch out this process six months or more.
- Repeated as necessary.



4. Production

Definition: Being “In Production” with NDDoH for syndromic surveillance means a facility/provider is submitting daily messages to NDDoH that are transformed and automatically uploaded to the ND BioSense 2.0 environment.

Practically, this means most providers can be “in production” three times over:

1. With the HIN
2. With NDDoH
3. With BioSense 2.0

Production

Production with the ND HIN (applies only to those connecting through the ND HIN):

- Once NDDoH is satisfied with the content of the messages in the test environment, we will request the ND HIN to move the current feed from test to our production environment (can take some time).
- Technically, production status with the ND HIN can be achieved before validation is complete (result of political pressure), but this is not recommended.



Production

Production with NDDoH

- Achieved when a “continuous” feed of validated messages is being received by NDDoH.
- Messages are ready to be “tested” with BioSense.

Production

Production with BioSense 2.0

- Messages are included in the daily ND Feed to the BioSense 2.0 environment.
- Must be achieved before documentation of production status will be provided.

Keeping Track of Status

The good news: North Dakota has identified an extremely effective method for tracking the status of our providers' onboarding efforts.

The boring news: It's Outlook.

- Facility-specific folders
- Phone conversations tracked in email as well
- **Best practice: I copy myself on all correspondence.**
- 30 and 60 day calendar reminders for follow up



Keeping Track of Status: Documentation Requests

- Automatic email confirmation for Registration of Intent
- Templates for additional circumstances

Pros and Cons of Working with an HIE

An HIE is a fantastic way for providers to connect with us; however a connection via an HIE adds some unique challenges to the onboarding process.

Working with an HIE is GREAT because:

- It gives providers more connection options.
- It is something our providers are doing anyway.
- It promotes the concept of using health record data meaningfully.

Working with an HIE is challenging because:

- The HIE and the department of health may have conflicting priorities. → **#1 barrier to the onboarding process in ND!**
 - Issues with timelines
 - compounded by unclear rules
 - questions on “readiness”
 - Pressure to move forward
 - ND HIN as gatekeeper—sets priorities



Working with an HIE is challenging because:

- Who's in charge here?
 - Yet more people involved in the process
 - Providers do not always feel empowered to direct the process to their needs (attestation timeline).
 - Unclear to providers that NDDoH and NDHIN are separate entities.
 - Because the ND HIN “guides them through” the process, contact with NDDoH even less likely in the event someone has been given misinformation or has made an incorrect assumption.



Working with an HIE is challenging because:

- Similar vocabulary (“onboarding,” “registration,” “production”) makes things confusing.
- Vendors may assume our process is the same as other states they have worked with.

Addressing Department/HIN Challenges

- Specific information on website for HIN users
- Presentation on ND HIN calls on NDDoH process. (helps/hurts)
- Moving forward: FAQ for ND HIN users to be distributed by ND HIN.

Questions?

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701-328-3341



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