Nebraska’s Immunizations Registry Updates

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Overview
1. Public Health Surveillance
2. Nebraska Immunization Registry Information System
3. Current Development
Purpose of Surveillance

Collecting surveillance data has many purposes

- Monitoring disease trends
- Detecting outbreaks
- Providing information to plan public health interventions and take actions
- Stimulating research
Public health surveillance data sources

<table>
<thead>
<tr>
<th>Birth Certificate/Defect/ New Born Screen</th>
<th>PRAMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immunization Registry</td>
<td>BRFSS</td>
</tr>
<tr>
<td>School Health</td>
<td>YRBS</td>
</tr>
<tr>
<td>Injury, Trauma,</td>
<td>TBS, YTS</td>
</tr>
<tr>
<td>EMS/Hospitalization/ED Visits</td>
<td></td>
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<tr>
<td>Cancer Registry</td>
<td></td>
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<tr>
<td>Parkinson's Diseases</td>
<td></td>
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<tr>
<td>Other Chronic Disease, oral health</td>
<td></td>
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<tr>
<td>PDMP, NVDRS</td>
<td></td>
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<tr>
<td>Death Certificate</td>
<td></td>
</tr>
</tbody>
</table>

More than 100 data sets available for public health

Summary

Public Health Surveillance

- Foundation of public health
- Many data sources are used to understand the health status of a population
- Must be timely to guide public health responses and interventions
- Public health must be able to use interoperable information systems for public health functions
Immunization Information System

Program Support
Help immunization programs identify populations at high risk for vaccine-preventable diseases and target interventions and resources efficiently.

Consolidated Records
Combine immunization information from different sources into a single record and provide official immunization records for school, day care, and camp entry requirements.

Privacy and Confidentiality
Must protect the privacy of all users, including children, families, and providers.
Immunization Information System

**Timely Immunization**
Remind families when an immunization is due or has been missed.

**Clinical Decision Support**
Help providers and parents determine when immunizations are due and help ensure that children get only the vaccinations they need.

**Data Exchange**
Capable of exchanging immunization information with immunization healthcare providers. Data exchange between IIS and other information systems helps ensure timely immunizations, consolidation of records, and allows immunization providers to work more efficiently.

NESIIS?

- The Nebraska State Immunization Information System (NESIIS) is a secure, statewide, web-based system that connects and shares immunization information among public clinics, private provider offices, local health departments, schools, hospitals, and other health care facilities that administer immunizations and provide medical care to Nebraska residents.

- Developed for and owned by State of Wisconsin in 1999. We adapted this application in 2008 and switched from Immunet to NESIIS.
NESIIS 2010:

<table>
<thead>
<tr>
<th># of Clients</th>
<th># of Immunizations</th>
<th># of Organizations</th>
<th># of NESIIS Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>868,615</td>
<td>6,372,496</td>
<td>582</td>
<td>2203</td>
</tr>
</tbody>
</table>

NESIIS 2019:

<table>
<thead>
<tr>
<th># of Clients</th>
<th># of Immunizations</th>
<th># of Organizations</th>
<th># of NESIIS Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,281,153</td>
<td>21,060,492</td>
<td>2179</td>
<td>9113</td>
</tr>
</tbody>
</table>

NESIIS Users

- Healthcare Providers
  (View a complete list of participating facilities: http://dhhs.ne.gov/epi%20docs/NESIIS%20Participating%20Facilities.pdf)

  Health Maintenance Organizations (HMO)

- School Nurses

- Parents, Guardians and Patients
  NESIIS has been made available to the public for your convenience.
  It can be accessed at: https://nesiis-dhhs-prod.ne.gov/prd_ir/public/clientSearch.do?language=en
Healthcare Providers

NESIIS has many features to help you with the entire immunization process. With NESIIS you will be able to:

♦ Immediately access a patient’s validated immunization history, whether administered by a public or private provider within the state.
♦ Identify each patient’s needed immunizations using the Centers for Disease Control and Advisory Committee on Immunization Practices (CDC/ACIP) Childhood Immunization Schedule or a custom tracking schedule that you design.
♦ Enter current and historical immunization information from public and private providers and parent records.
♦ Track your organization’s vaccine inventory, and be alerted when a vaccine’s inventory is running low or is about to expire.
♦ Generate patient recall and reminder letters, cards, labels, and lists.

♦ Produce standardized immunization records detailing a patient’s immunization history and needs for use in the office record and to give to parents.
♦ Determine the immunization coverage level for your office/clinic using AFIX/IQIP
♦ Prevents over-vaccination.

There is no cost for NESIIS use or training.

NESIIS Public Search Portal Page:

NESIIS School and Daycare Users:

At no cost, the Nebraska Department of Health of Human Services is offering school medical staff view-only access to the NESIIS in order to view and print the immunization histories of enrolled students within their respective school.

- Saves parents time going to the doctor’s office or clinic to obtain a copy of their children’s immunization records because many schools can check immunization records online.
- Provides schools with quick easy access to immunization records, even if the child received vaccines at more than one clinic.
- Provides a mechanism for tracking list of students needing immunizations.

How do providers submit data to NESIIS

Providers can submit data to NESIIS in a variety of different ways. Methods of sending data include:

- SOAP web service,
- Public Health Information Network Messaging System (PHINMS)
- or manual data entry.

Formats for sending data electronically can be in standard HL7 or flat file formats. For Meaningful Use (MU), standard HL7 format is required.

Providers with Electronic Medical Records (EMR) should work with their ER vendors to automate their electronic data submission.
NESIIS Data Exchange

- The Nebraska State Immunization Information System (NESIIS) is an immunization system designed to consolidate patient immunization records into one complete, accurate and definitive immunization record.

- The electronic reporting of immunization data is a public health core objective for eligible hospitals, critical access hospitals (CAH), and eligible professionals attesting to Stage 3 Meaningful Use (MU).

  [http://dhhs.ne.gov/Pages/Meaningful-Use.aspx](http://dhhs.ne.gov/Pages/Meaningful-Use.aspx)

  [Click Here to Register Online](https://www.surveymonkey.com/r/Meaningful_Use_Testing_Registration_Form)

NESIIS Bi-Directional Data Exchange

- NESIIS now allows patient information to be returned to EHR systems through a process called bi-directional data exchange (BiDX). This involves submission by the EHR to NESIIS of a patient query message and the return of a patient history and recommendations by NESIIS to the EHR system. An example of this would be pulling up a record in your EMR/EHR, then clicking a button to query NESIIS for that same person's record to see if additional information can be found.

- A formal testing and onboarding process for BiDX, independent of the current one-way data submission process is required.
Current Projects:

- Application server upgrade
- AFIX to IQIP Integration
- Disaster Recovery: continuation of operation
- Data Security
- Provider Report Card – NESIIS Reporting card generated automatically for providers
- Deduplication (RunMatch)
- SmartyStreets – Address Cleansing

Priorities

How can you help us

INCOMPLETE RECORDS

NESIIS was developed to achieve complete and timely immunization of all Nebraskans. A barrier to reaching this goal is the continuing difficulty of keeping immunization records accurate and up-to-date.
Immunization Registry Informatician

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THANK YOU!