

An Evaluation of Interstate Immunization Data Exchange between Minnesota and Wisconsin

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Wisconsin (WI) and Minnesota (MN) Border

- 291.1 miles formed by the St. Croix and Mississippi Rivers
- Many people cross the border to work, go to school and to receive healthcare
 - Mayo Clinic
- Large border cities:
 - Duluth, MN-Superior, WI
 - La Crosse, WI-Winona, MN
 - Twin Cities, MN-Hudson, WI



Wisconsin Immunization Registry (WIR)

- Since 2000, collects immunization information for Wisconsin residents of all ages
- Receives data through manual entry and data exchange from:
 - Vital Records
 - Public and private health care organizations
 - Pharmacies
 - Health Maintenance Organizations (HMOs)
 - Medicaid
 - Women, Infants and Children program

Minnesota Immunization Information Connection (MIIC)

- Received a copy of WIR in 2001
- Since 2002, collects information for Minnesota residents of all ages
- Receives data through manual entry and data exchange from:
 - Vital Records
 - Public and private health care organizations
 - Pharmacies
 - Schools
 - Medicaid



Interstate Data Exchange History

- Memorandum of Understanding (MOU) between WI Division of Public Health and MN Department of Health signed November 2006
- Purpose:
 - Enable secure exchange of immunization data for private and public health care providers
 - Assist MN and WI in measuring accurate statewide immunization levels and identifying pockets of need
- Automatically renewed every two years
- Can be amended at any time by either party
- MN and WI met with other states and ASTHO to develop a universal MOU

Responsibilities

- WI agrees to provide data on MN residents from the WIR and MN agrees to provide data on WI residents from MIIC through:
 - Batch data exchange – at least weekly
 - Real-time HL7 queries – one client at a time
 - This functionality is not currently available in MIIC and is not utilized by WIR

Current Data Exchange Process

MN

- Queries MIIC using SAS to pull any new WI resident data since last run (clients, immunizations, and comments)
- Exports data to Excel
- Formats and runs macros in Access to get data into the WIR's required batch flat file format
- Uploads files into the WIR

WI

- Receives WI resident files from MN
- Returns client, immunization, and comment files for MN residents found in the WIR

MN

- Receives MN resident files from WI
- Runs two Access macros to translate and export WI files to appropriate format
- Loads files into MIIC under the WIR organization

Clients Shared Between States

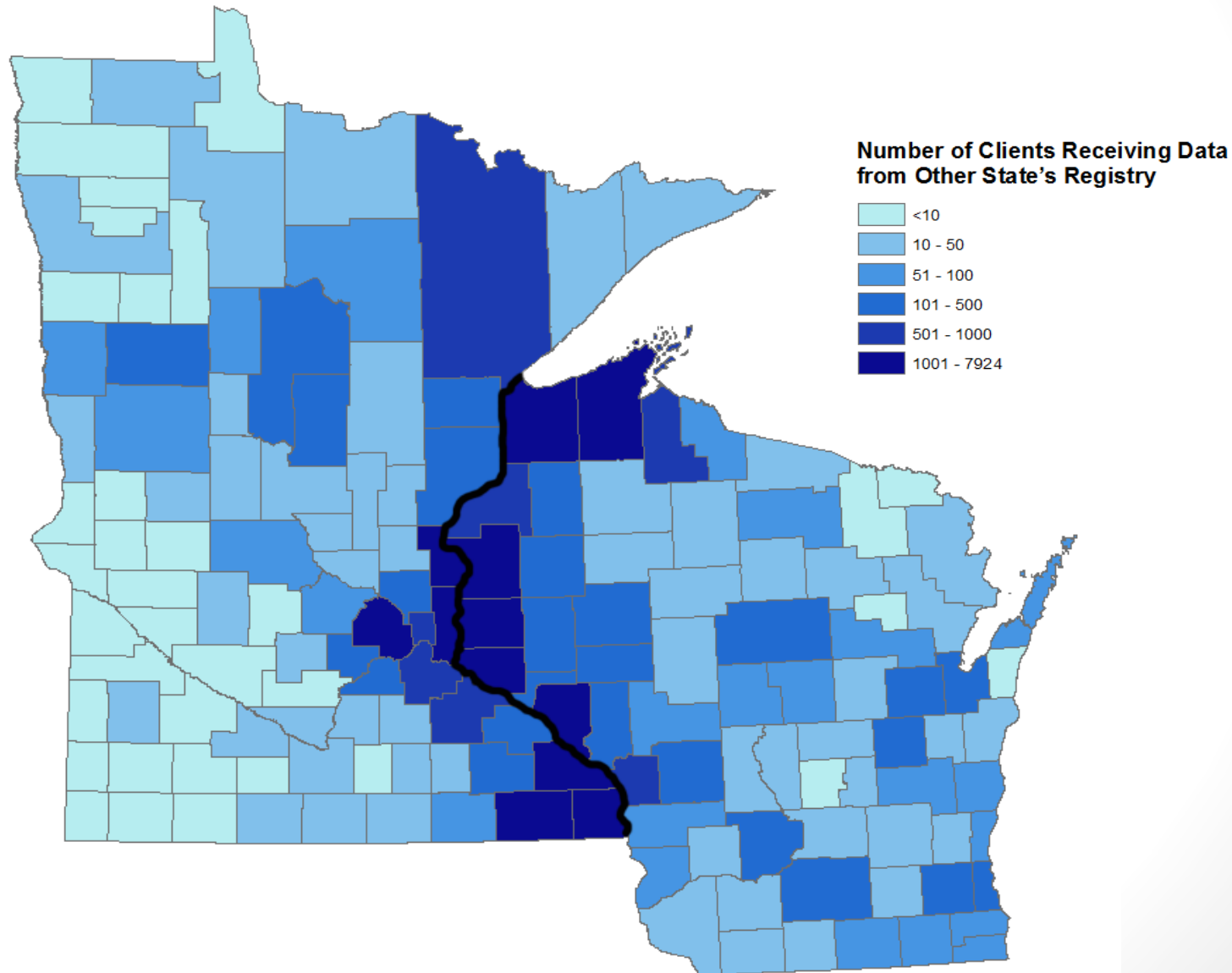
	MIIC	WIR
Total clients in registry with an address in the other state	237,843	344,507
Total records updated by other state's registry (1/1/15-12/31/15)	26,185	28,881

Clients in State Registry with Data from Other Registry, by Age Group

Age in Years (as of 1/1/2016)	MIIC	WIR
< 1	436	731
1-4	3,117	5,900
5-17	9,327	27,116
18-24	4,024	14,507
25-49	20,305	51,641
50-64	13,697	37,702
≥65	17,127	43,292
Total	68,033	180,889

~3,000 new client records created in MIIC/WIR by other registry each year.

Clients Receiving Data from Other State's Registry



Vaccination Coverage Estimates

	MIIC	WIR
Clients up-to-date (UTD) for the 4:3:1:3:3:1:4* series by 24 months	58.9%	70.7%
Clients UTD for the 4:3:1:3:3:1:4 series by 24 months excluding data from other state	58.5%	69.7%
Clients with immunizations from other state who are UTD for the 4:3:1:3:3:1:4 series by 24 months	77.4%	69.1%
Clients with immunizations from other state who are UTD for the 4:3:1:3:3:1:4 series by 24 months excluding data from other state	26.2%	15.3%

*4 diphtheria-tetanus-acellular pertussis: 3 polio: 1 measles, mumps, rubella: 3 *haemophilus influenzae* type b: 3 hepatitis B: 1 varicella: 4 pneumococcal conjugate

Summary

- Immunization data exchange between WI and MN has increased completeness of immunization histories found in both systems
 - Decreases likelihood of over-vaccination
 - Increases accuracy of jurisdiction-level vaccination coverage estimates
- Exchanging data especially important in ensuring completeness of immunization records for clients living in border counties

Limitations

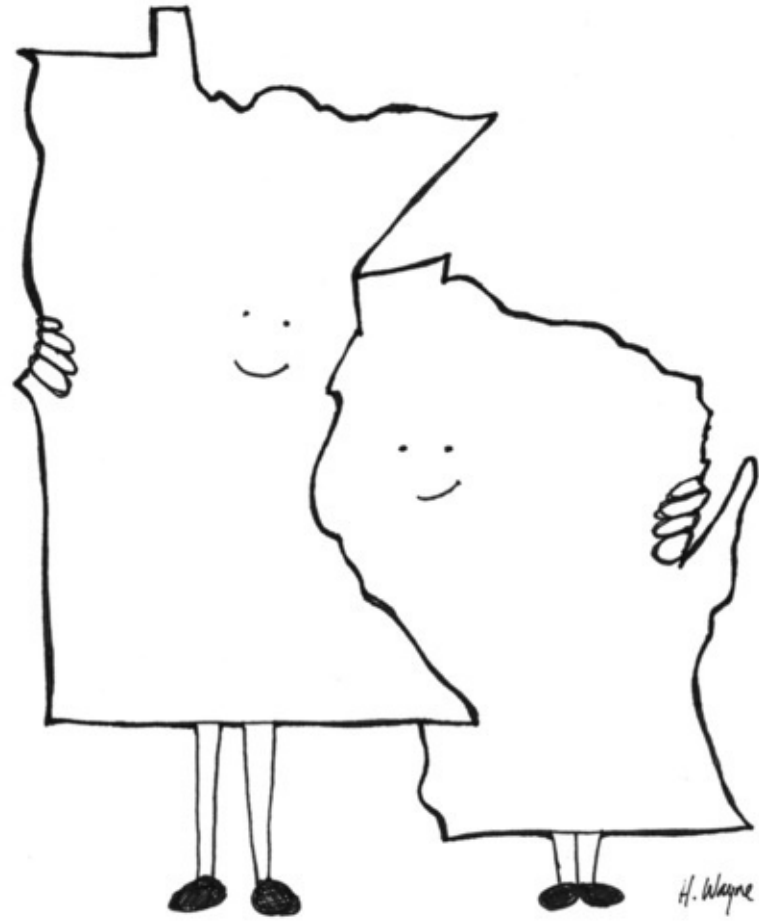
- Data only shared between states once a week
- Current batch load process is labor intensive for MIIC staff
- Each state only receives information on clients who reside in their state when records are updated
 - No information shared when clients move to other state.
- Providers in each state can only see immunizations in their own state registry
 - Issue for clients who live in one state and seek services in the other

Next Steps

- Continue discussions on moving to automated nightly batch process
- Build/turn on real-time query functionality
 - Gives providers ability to assess an individual's immunization status correctly at a visit
- Develop interstate data exchange with other states
 - Focus on other border states
 - Currently working with Iowa and Nebraska
- Continue forward movement with ASTHO MOU

Conclusions

- Despite limitations, data exchange between MN and WI has been mutually beneficial
- Further enhancements will make process less labor-intensive for MIIC and more helpful to providers



Thank you!

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