

The Minnesota Immunization Information Connection (MIIC): An Update

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MIIC Background

- Statewide immunization information system (IIS)
- 7 regional registries with four metro counties
- MIIC went live in May 2002
- Created to meet federal 317 immunization grant objectives and Healthy People 2010 goals

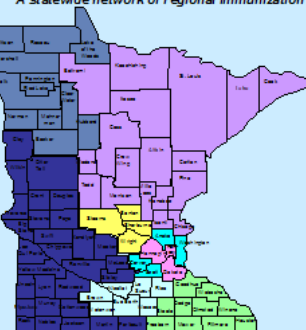


Federal IIS Objectives

- 85% of all MnVFC primary care providers are enrolled (goal is 95%)
- **96% of kids** <6 years of age with 2 or more shots on record (met 95% goal)



Minnesota Immunization Information Connection



- Central Minnesota Immunization Connection (CMIC)
- Communities Caring for Children (CCC)
- Community Health Information Collaborative (CHIC)
- ImmLink/Metro Counties
- Immtrack
- Southeast Minnesota Immunization Connection (SEMIC)
- Southwest Minnesota Immunization Information Connection (SW-MIIC)



Quick Stats

- MIIC contains 5.3 million clients
- Over 41 million immunizations
- Busiest hours from 8:00-5:00, M-F
- Over 1,000 unique users log-in every day
- Over 2,100 log-ins occur every day



Funding

- Primarily federally funded with 317 and Vaccines for Children funds
- Public Health Emergency Response (PHER), ARRA (stimulus), other special grant funds
- Regional registries receive additional funding from DHS
- No state funding
- Health plans funded initial start-up



Provider Types in MIIC

Provider Type	Count
School	753
Primary Care Clinic	696
Child Care/Headstart/Pre-school	420
Nursing Home/ Long Term Care	251
Pharmacy	215
Hospital	144
Specialty, other	113
Other	94
Public Health	92
OB/Gyn	40
College/University	30
Occupational Health	29
Tribal or IHS Clinic	27
Correctional facility	22
Family Services	19
Home Care/Hospice	18
Health Plan	17
Community Vaccinators	9



Client Information						VFC Eligible: UNK
Client Name (First - MI - Last - Suffix)	DOB	Gender	Mother's Maiden	Tracking Schedule	Chart #	
HEPB TEST	09/01/2008	F		ACP		
Address						
Comments						(1 of 1) ... - History of Varicella / chicken pox
History						Add Immunization Edit Client Reports Print Print Confidential
Vaccine Group	Date Administered	Series	Trade Name	Dose Owned?	Reaction	Hist? Edit
DTPaP	11/10/2008	1 of 5	Pediarx ®			Yes
	01/10/2009	2 of 5	Pediarx ®			Yes
	03/15/2009	3 of 5	Pentacel ®			Yes
HepB	09/02/2008	1 of 4				Yes
	11/10/2008	2 of 4	Pediarx ®			Yes
	01/10/2009	3 of 4	Pediarx ®			Yes
Hib	05/15/2009	1 of 3	Pentacel ®			Yes
Polo	11/10/2008	1 of 4	Pediarx ®			Yes
	01/10/2009	2 of 4	Pediarx ®			Yes
	05/15/2009	3 of 4	Pentacel ®			Yes
Current Age: 1 year, 7 months						
Vaccines Recommended by Selected Tracking Schedule						Add Selected
Select	Vaccine Group	Earliest Date	Recommended Date	Overdue Date	Latest Date	
<input checked="" type="checkbox"/>	DTPaP	11/15/2009	12/01/2009	05/01/2010	08/31/2015	
<input checked="" type="checkbox"/>	HexB	03/07/2009	03/10/2009	05/01/2010	08/31/2015	
<input checked="" type="checkbox"/>	Hib	06/12/2009	06/12/2009	09/15/2009	08/31/2013	
<input checked="" type="checkbox"/>	MMB	09/01/2009	09/01/2009	01/01/2010	08/31/2015	
<input checked="" type="checkbox"/>	Pneumo-cc11	10/13/2008	11/01/2008	01/01/2009	08/31/2013	
<input type="checkbox"/>	Polo	06/12/2009	09/01/2012	09/01/2015	08/31/2026	
	Varicella					Contraindicated



Sources of MIIC Data

- Billing data
- Claims data
- Electronic health record (EHR)
- Direct data entry



How does data get in to MIIC?

- Direct data entry – 11%
- Batch file process – 87%
- Real-time HL7 – 2%
- Batch includes flat file format and HL7 2.3.1 and 2.4.1
- New standard is 2.5.1



MIIC Integration

- Current batch file exchange is semi-automated
- We process files from over 200 distinct provider systems every month
- HL7 real-time solution is closest we have to full integration, but it's one direction only





Three Paths of EHR-MIIC Integration:

- Data from EHR to MIIC “real time”
- Ability to query MIIC from within EHR to receive imm history and forecast (Alternate Access)
- Data from EHR to MIIC real time, see what shots patient has in MIIC, select shots to add to EHR



First Path: HL7 Real-Time

- Real-time data from Allscripts EHR to MIIC



HealthEast and Mankato Clinics clinicians add shots to their EHR...



...and the shots get sent to MIIC...AUTOMATICALLY!



First path, con't



Real Time Results:

- Real-time data from EHR straight to MIIC began in February 2009 with Health East Clinics
- Mankato Clinic System adapted same technology in October 2009
- We average 700-800 shots per day in “real-time” from both systems



Second Path: “Alternate Access”

- Project with Allina Clinics went live mid-December 2009
- Ability to query MIIC from within the EHR
- Expanded to HCMC late December 2009, Health Partners March 2010
- We get 200-500 queries from each system daily!



Session 7: Lessons in Planning and Implementation of Exchange of Health Information

The screenshot shows a patient record for Thomas Maerz, a 4-year-old male. The interface includes a left-hand navigation menu with options like Snapshot, Meds and Allergies, Problem List, Medications, Reminders and Results, Allergies, Health Maintenance, and Family Comments. The main content area displays details for each of these categories, mostly showing 'None' or 'Not on File'.

The screenshot shows the Wisconsin Immunization Registry (WIR) interface for patient Thomas Maerz. It displays patient information such as name, DOB, gender, and address. Below this is a detailed immunization history table with columns for Vaccine Group, Date Administered, Sites, Trade Name, Dose, Doses?, Reaction, and Ind?.

Vaccine Group	Date Administered	Sites	Trade Name	Dose	Doses?	Reaction	Ind?
DTaP	05/25/2004	1 of 5		No	Yes	Yes	
wfH	10/26/2004	2 of 5		No	Yes	Yes	
wfH History	06/13/2002	4 of 5	Accl-Imun0	Full	No	Yes	
HepA	11/01/2004	1 of 2		No	Yes	Yes	
HepB	03/26/2004	1 of 3		No	Yes	Yes	
	05/26/2007	2 of 3		No	Yes	Yes	
	09/13/2002	3 of 3	Conva0	Full	No	Yes	
Hi	06/13/2002	1 of 1	Conva0	Full	No	Yes	
Influenza	11/19/2004	1 of 2		No	Yes	Yes	
	11/19/2005	2 of 2		No	Yes	Yes	
	11/19/2006		Booster	No	Yes	Yes	
MMR	10/01/2004	NOT VALID	MWR10	Full	No	Yes	
	10/26/2004	1 of 2	MWR10	Full	No	Yes	
Pneumococcal	05/26/2004	1 of 4	Prema0	Full	No	Yes	
	05/26/2004	2 of 4	Prema0	Full	No	Yes	
	10/26/2004	3 of 4	Prema0	Full	No	Yes	
	10/26/2004	4 of 4	Prema0	Full	No	Yes	
Polio	05/26/2004	1 of 4	POL0	Full	No	Yes	
	04/02/2004	2 of 4	POL0	Full	No	Yes	
Rotavirus	06/13/2004	1 of 3		No	Yes	Yes	
Synflorix	04/13/2005	1 of 1	DECAVAC0	Full	No	Yes	
Td	06/01/2004			No	Yes	Yes	

The Third Path: Bi-directional

- To date, unrealized...
- No single technical solution exists
 - EHR to MIIC uses HL7
 - Alternate Access uses https post
- Lack of funding to explore alternatives...until recently.

MIIC and MN-HIE

- MN-HIE's web portal will display IZ of patients based upon MIIC data
- Utilizes HL7 real-time messaging
- Ready for certification process
- Need MDH/MN-HIE agreement in place first (underway)



Ongoing Challenges

- Technology
- Lack of knowledge about standards
- Data/Information Quality
- How to sustain IIS long-term



Future Plans

- Advanced reporting
- More integration with vaccine ordering
- Possible EHR-IIS Interoperability funds



Questions...

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