

Applications for an Immunization Registry Reminder/Recall Tool

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ImmuLink Coordinator

working for you

Presentation Outline

- MIIC background
- Client Follow-Up summary
- Use of CFU report in Measles outbreak
 - Public Health
 - Private Clinic
- Use of report in annual child care report
- Conclusions & acknowledgements



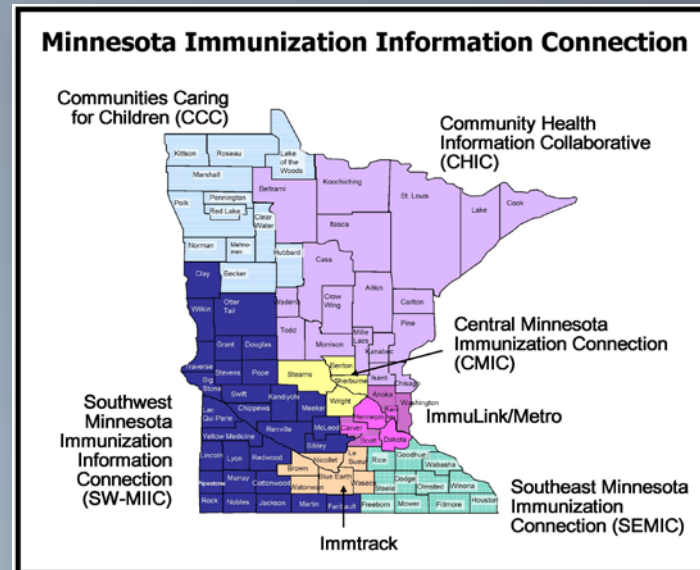
MIIC Background

What is MIIC?

The Minnesota Immunization Information Connection (MIIC), is the statewide immunization registry of Minnesota. MIIC was implemented in 2002.

How Are MIIC Services Provided in Minnesota?

MIIC is divided into 11 different regions throughout the state. Each region has a MIIC Regional Coordinator that is responsible for providing direct services to partners within their region.



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Client Follow-Up

- Reminder/recall tool in MIIC
- MIIC RCs pilot started March 2011
 - Feature released June 2012
- Goal of feature
 - Motivate users to increase R/R use

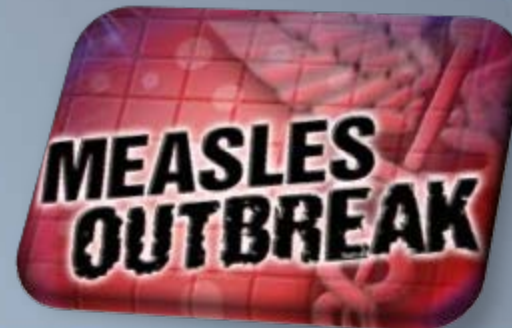


Measles Outbreak 2011

- Measles outbreak timeline
 - March – May 2011 (67 days)
- Investigation and intervention in exposed population
 - 23 Measles cases
- Support clinic response to outbreak



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Measles Outbreak 2011

Exposed Population

- Site provided list of individuals exposed

	B	C	D	E	F	G	H
1	FIRST_NAME	Middle_name	Name_suffix	Mothers_first_name	Mothers_maiden_name	Unique_record_id	BIRTH_DATE
2							
3							
4							
5							
6							

- Generated MIIIC list/roster

Upload List

[Upload List/Roster Template \(click here for file\)](#)
[Sample Upload List \(click here for file\)](#)

New List

OR

Update List

[List File Name](#)

Browse...

Upload



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Measles Outbreak 2011

Exposed Population

- Completed MIIIC list/roster

Create List

Upload List or Roster

Create List Manually

Existing Lists

List Name	Last Updated Date	Member Count	Delete
Plymouth Meninge	07/26/2012	3341	Delete
Minnetonka Meninge	07/26/2012	3681	Delete
Maple Grove Meninge	07/26/2012	2117	Delete
Eden Prairie Meninge	07/26/2012	2226	Delete
Children West Meninge	07/26/2012	2011	Delete
St Louis Park Meninge	07/25/2012	1106	Delete
Chaska Meninge	07/24/2012	178	Delete
Test5.17	06/26/2012	6	Delete
Client FU Test List	05/16/2012	17	Delete
Metro Peds PCV13 List	04/20/2012	1264	Delete



Measles Outbreak 2011

Exposed Population

- Setup Client Follow-Up report (All)

Create Client Follow-Up

Select List

List Name:

Follow-Up Type

☐ Overdue

☐ Recommended

☐ Overdue/Recommended

☒ All

Follow-Up Name: (optional)




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Measles Outbreak 2011

Exposed Population

- Ran Client Follow-Up Report



Overdue Immunization Report

Organization: MIIC
List: Example List
As of Date : 06/05/2012

	Dose 1	Dose 2	Dose 3	Dose 4	Dose 5	Dose 6
DUCK, DON						
MIIC ID: 6714871	Chart # :	DOB: 09/21/2008	Current Age: 3 years 8 months 15 days			
123 1ST ST SE SAINT PAUL MN 55112-7861		Gender: U	Phone: (555) 555-5555	<input type="checkbox"/> Reminder Sent <input type="checkbox"/> Remove Client		
NEEDS	DTP/aP	09/21/2008 (NV)				
NEEDS	HepB					
NEEDS	Hib					
NEEDS	MMR					
NEEDS	Pneumo-conj					
NEEDS	Polio					
NEEDS	Varicella					
MOUSE, MICKEY						
MIIC ID: 7791337	Chart # :	DOB: 03/01/2011	Current Age: 1 year 3 months 4 days			
345 2ND AVE SE SAINT PAUL MN 55112-7852		Gender: U	Phone: (555) 555-5555	<input type="checkbox"/> Reminder Sent <input type="checkbox"/> Remove Client		
NEEDS	DTP/aP					
	HepA	01/12/2012 (NV)				
NEEDS	HepB					
NEEDS	Hib					
	Influenza	10/06/2011				
	MMR	05/14/2012				
NEEDS	Pneumo-conj					
NEEDS	Polio					
	Varicella	05/14/2012				
MOUSE, MINNIE						
MIIC ID: 6853705	Chart # :	DOB: 11/13/2005	Current Age: 6 years 6 months 23 days			
678 3RD ST. ST. PAUL MN 55555		Gender: F	Phone: (555) 555-5555	<input type="checkbox"/> Reminder Sent <input type="checkbox"/> Remove Client		
NEEDS	DTP/aP	06/27/2007	06/06/2009			
NEEDS	HepB	06/06/2009				
NEEDS	Hib					
NEEDS	MMR					
NEEDS	Pneumo-conj					
NEEDS	Polio	06/06/2009				
NEEDS	Varicella					



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Measles Outbreak 2011

Clinic Response to Outbreak

- Discussed cohort with site
- Set up Client Follow-Up report

Create Client Follow-Up

Age Range In:

☒ Months Beginning Age As of Date: 

☐ Years Through Ending Age

Follow-Up Type

☐ Overdue

☐ Recommended

☒ Overdue/Recommended

☐ All

Vaccines:

<input type="checkbox"/> DTaP	<input type="checkbox"/> HepA	<input type="checkbox"/> Anthrax
<input type="checkbox"/> HepB	<input type="checkbox"/> HPV	<input type="checkbox"/> Cholera
<input type="checkbox"/> Hib	<input type="checkbox"/> Influenza	<input type="checkbox"/> Pneumo-poly
<input checked="" type="checkbox"/> MMR	<input type="checkbox"/> Meningococcal	<input type="checkbox"/> Yellow Fever
<input type="checkbox"/> Pneumo-conj	<input type="checkbox"/> Rotavirus	<input type="checkbox"/> Zoster
<input type="checkbox"/> Polio	<input type="checkbox"/> Td	
<input type="checkbox"/> Varicella	<input type="checkbox"/> Tdap	

Follow-Up Name: (optional)



Measles Outbreak 2011

Clinic Response to Outbreak

- Cleaned up active cohort

Patient Follow-Up:
Name: **NIC Online**
Age Range: **24 to 35 MONTH(S)** Generated: **03/06/2012 06:33 AM**
As of Date: **01/01/2012** # of Clients: **137**
Type: **OVERDUE CLIENTS**

[Back to Manage Follow-Ups](#)
[View/Create Reports](#)

<input type="checkbox"/>	Last Name	First Name	DOB	Most Recent Sh	Provider	City	State
<input type="checkbox"/>	46	MOUSE	MICKEY	07/23/2009	02/22/2011	All About Children	CHANHASSEN, MN 55317-7593
<input type="checkbox"/>	47	MOUSE	MICKEY	12/20/2009	06/21/2011	All About Children	EDEN PRAIRIE, MN 55347-4529
<input type="checkbox"/>	48	MOUSE	MICKEY	09/30/2009	03/16/2011	All About Children	EDEN PRAIRIE, MN 55347-3396
<input type="checkbox"/>	49	MOUSE	MICKEY	02/02/2009	10/27/2010	Park Nicollet Clinics	EDEN PRAIRIE, MN 55347-4534
<input type="checkbox"/>	50	MOUSE	MICKEY	12/31/2009	07/01/2010	All About Children	HOPKINS, MN 55343
<input type="checkbox"/>	51	MOUSE	MICKEY	11/05/2009	11/09/2011	Minnesota Visiting Nurses Agency (MVNA)	BLOOMINGTON, MN 55437-3704
<input type="checkbox"/>	52	MOUSE	MICKEY	06/09/2009	06/22/2011	All About Children	EDEN PRAIRIE, MN 55347-5336
<input type="checkbox"/>	53	MOUSE	MICKEY	01/01/2010	07/18/2011	All About Children	
<input type="checkbox"/>	54	MOUSE	MICKEY	06/14/2009	06/30/2011	All About Children	EDEN PRAIRIE, MN 55346-3828
<input type="checkbox"/>	55	MOUSE	MICKEY	06/23/2009	07/05/2011	All About Children	VICTORIA, MN 55386-4603
<input type="checkbox"/>	56	MOUSE	MICKEY	07/14/2009	09/29/2011	Metropolitan Pediatrics - Shakopee	SHAKOPEE, MN 55379-5441
<input type="checkbox"/>	57	MOUSE	MICKEY	05/22/2009	06/14/2011	All About Children	LAKEVILLE, MN 55044-7412
<input type="checkbox"/>	58	MOUSE	MICKEY	04/07/2009	05/04/2011	All About Children	EDEN PRAIRIE, MN 55346-1049
<input type="checkbox"/>	59	MOUSE	MICKEY	04/07/2009	05/04/2011	All About Children	EDEN PRAIRIE, MN 55346-1049
<input type="checkbox"/>	60	MOUSE	MICKEY	12/01/2009	08/16/2010	Park Nicollet Clinics	MINNEAPOLIS, MN 55411-4214

☐ No Reminder ☐ Not our Patient

Records: 46 to 60 of 137




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Measles Outbreak 2011

Clinic Response to Outbreak

- Ran Client Follow-Up Report


Overdue Immunization Report
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NEEDS	HepB					
NEEDS	Hib					
NEEDS	MMR					
NEEDS	Pneumo-conj					
NEEDS	Polio					
NEEDS	Varicella					
MOUSE, MICKEY						
MIIC ID: 7791337	Chart # :	DOB: 03/01/2011	Current Age: 1 year 3 months 4 days			
345 2ND AVE SE SAINT PAUL MN 55112-7852		Gender: U	Phone: (555) 555-5555	<input type="checkbox"/> Reminder Sent <input type="checkbox"/> Remove Client		
NEEDS	DTP/aP					
	HepA	01/12/2012 (NV)				
NEEDS	HepB					
NEEDS	Hib					
	Influenza	10/06/2011				
	MMR	05/14/2012				
NEEDS	Pneumo-conj					
NEEDS	Polio					
	Varicella	05/14/2012				
MOUSE, MINNIE						
MIIC ID: 6853705	Chart # :	DOB: 11/13/2005	Current Age: 6 years 6 months 23 days			
678 3RD ST. ST. PAUL MN 55555		Gender: F	Phone: (555) 555-5555	<input type="checkbox"/> Reminder Sent <input type="checkbox"/> Remove Client		
NEEDS	DTP/aP	06/27/2007	06/06/2009			
NEEDS	HepB	06/06/2009				
NEEDS	Hib					
NEEDS	MMR					
NEEDS	Pneumo-conj					
NEEDS	Polio	06/06/2009				
NEEDS	Varicella					



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Measles Outbreak 2011

MIIC Benefits

- Targeted intervention saved time and resources
 - Ability to efficiently reach larger population
- Ability to give specific stats to MDH



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Measles Outbreak 2011

MIIC Limitations

- Data completeness issues
- No dose specific reports
- MIIC report in fixed format (.pdf)
- Population – based reports
- Early MMR – Not Valid label



Measles Outbreak 2011

Client Follow-Up Feedback

- “People have been very impressed that we were able to do this with MIIC. Most families we reached wanted to come in and get vaccine.”

Dr. Dawn Martin, HCMC (related to Measles response 2011)

- “The report saved us a lot of time by running the overall report vs. spending time looking up each child individually. This was a very helpful feature during a stressful outbreak situation when we were short on time”

Hennepin County Epidemiology Staff (related to Measles response 2011)



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Child Care Report

Background

- Required annual MDH Child Care Immunization Report
- MIIC offers annual assistance to centers
- Added Client Follow-Up report in 2012



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working for you



Daycare & School Reports Process

- Site uploaded roster in MIIC

	B	C	D	E	F	G	H
1	FIRST_NAME	Middle_name	Name_suffix	Mothers_first_name	Mothers_maiden_name	Unique_record_id	BIRTH_DATE
2							
3							
4							
5							
6							

Create List

Upload List or Roster

Create List Manually

Existing Lists

List Name	Last Updated Date	Member Count	Delete
12-13 Roster	05/16/2012	0	Delete
11- 12 Roster	09/14/2011	100	Delete
10-11 Roster	10/04/2010	100	Delete
09-10 Roster	10/23/2009	100	Delete
08-09 Roster	11/04/2008	99	Delete
07-08 Roster	10/07/2007	96	Delete



Daycare & School Reports Process

- Set up report from list (All)

Create Client Follow-Up

Select List

List Name:

Follow-Up Type

☐ Overdue

☐ Recommended

☐ Overdue/Recommended

☒ All

Follow-Up Name: (optional)



Daycare & School Reports Process

- Ran Client Follow-Up report
- Site conducted chart audit



Overdue Immunization List

Organization: ImmuLink

Patient Age Range : 24 to 35 Months

As of Date : 01/01/2012

		Dose 1	Dose 2	Dose 3	Dose 4	Dose 5	Dose 6
MOUSE, MICKEY				DOB: 05/25/2009	Current Age: 2 years 9 months 10 days		
MIIC ID: 0000000				Gender: M	Phone:	<input type="checkbox"/> Reminder Sent	
Chart # :						<input type="checkbox"/> Remove Patient	
MINNEAPOLIS MN 55406-1918							
NEEDS	DTP/aP	07/24/2009	09/18/2009	10/28/2010			
	H1N1 Novel Flu	01/18/2010	02/26/2010				
	HepA	10/28/2010	08/16/2011				
NEEDS	HepB	05/26/2009	07/24/2009	09/18/2009 (NV)			
	Hib	07/24/2009	09/18/2009	10/28/2010			
	Influenza	01/18/2010	02/26/2010	12/09/2010			
	MMR	07/21/2010					
	Pneumo-conj	07/24/2009	09/18/2009	07/21/2010			
NEEDS	Polio	07/24/2009	09/18/2009				
	Rotavirus	07/24/2009	09/18/2009				
	Varicella	07/21/2010					



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Daycare & School Reports

Process

- Resolved missing data issues
- Requested MIIC report

	A	B	C	D	E	F	G	H
1	Tabulation of DTP by Age Group							
2								
3	Table of Age_group by DTP							
4	Age_group	DTP					Total	
5		0	1	2	3	4	5	
6	2-15 mos	1	0	0	6	0	0	7
7	16-24 mos	0	0	0	1	2	0	3
8	25-32 mos	0	0	0	0	7	0	7
9	33 mos - 1st day school	1	0	0	0	13	1	15
10	school age	0	0	0	0	0	2	2
11	Total	2	0	0	7	22	3	34
12								
13	Generated by the SAS System (WSTAT02, SunOS) on 06OCT2011 at 11:33 AM							



Daycare & School Reports

Lessons Learned

- Immunization report vs. MIIIC forecasted vaccines
- Interpretation of CFU report
 - May recommend alternate list setup

Create List

Upload List or Roster

Create List Manually

Existing Lists

List Name	Last Updated Date	Member Count	Delete
School Age	07/13/2012	13	<div>Delete</div>
Current Students	07/13/2012	38	<div>Delete</div>
Preschool (33mths-1st day school)	07/13/2012	15	<div>Delete</div>
Toddler I (16-24mths)	05/10/2012	2	<div>Delete</div>
Infant (2-16mths)	04/26/2012	2	<div>Delete</div>
Toddler II (25-33mths)	04/26/2012	6	<div>Delete</div>



Contributors

- Hennepin County Healthcare for the Homeless Staff
- Hennepin County Public Health Emergency Preparedness Staff
- Hennepin County Epidemiology Staff



Hennepin County Minnesota

working for you



Contact Information

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