



PROGRAM PRACTICES SUBMISSION FORM

IMMUNIZATION PROGRAM PRACTICES INFORMATION

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Program: Minnesota Department of Health Immunization Program

Does AIM have permission to share this information on the publicly accessible AIM website? *All materials submitted will be posted on the AIM website.* ☒ Yes ☐ No

BULL'S-EYE AWARD

The **Bulls-Eye Award for Innovation and Excellence in Immunization** recognizes immunization strategies that “hit their mark” and achieve immunization goals with special consideration for practices that are innovative and easily replicated. Each year, AIM awards three programs the Bull’s-Eye Award. Only those practices with activities that are **currently ongoing** or **concluded during 2016** (including implementation, follow-up, and/or evaluation activities) will be considered for the award.

Would you like for this submission to be considered for the 2017 AIM Bull’s- Eye Award? ☒ Yes ☐ No

PROGRAM PRACTICE INFORMATION

Title:

Data driven Immunization Program outreach: Using IIS and Vital Records data for innovative vaccine coverage analyses to better target immunization outreach activities in Minnesota

Keywords (up to 5 main terms/phrases that describe the practice):

IIS data, Evidence Based, Data driven outreach, Health equity, Innovative methodology

Is this practice Evidence / Guideline Based? *(if yes, please include reference below)* ☒ Yes ☐ No

Reference:

U.S. Department of Health and Human Services. Vaccination Programs: Immunization Information Systems. The Community Guide, July 2010. Available at www.thecommunityguide.org/findings/vaccination-programs-immunization-information-systems. Accessed November 2016.

Background: (scope of the immunization need or problem)

Identifying and eliminating health disparities is an agency-wide priority for the Minnesota Department of Health (MDH), and using available data to guide public health programming is a key agency value. MDH Immunization Program staff are working to better understand immunization coverage disparities to build an evidence-based foundation to guide health equity outreach activities. By linking race, ethnicity and parental birth country data from birth certificates with immunization data from Minnesota’s IIS, the Minnesota Immunization Information Connection (MIIC), MDH staff are able to identify immunization coverage gaps to more effectively target outreach activities.

The MDH Office of Vital Records (OVR) captures demographic information on birth certificates, which includes race and ethnicity as well as mother's birth country data. The process of linking MIIC and Vital Records data is relatively simple (for recent birth cohorts) as the program was already receiving basic demographic information from OVR on a weekly basis, including birth certificate number which was variable used to link MIIC and OVR data.

Immunization coverage data generated from this analysis method are more specific to Minnesota's population than other data sources such as the National Immunization Survey (NIS) or Behavioral Risk Factor Surveillance System (BRFSS). Data on immunization coverages gaps specific to the state's population have supported program staff in improving prioritization of outreach activities.

Two examples of how this data analysis method has informed the program's outreach activities are detailed below:

1. **Somali Immunization Outreach:** The epidemiology of the 2011 Twin Cities measles outbreak, along with anecdotes from health care providers reporting MMR vaccine hesitancy among Somali Minnesotans, prompted MDH to assess MMR coverage for Minnesota children with mothers of Somali descent. MIIC data does not have information about Somali descent so staff worked with OVR to determine which children were Somali based on their mother's country of origin and ethnicity. This was used to calculate Somali-specific immunization rates.
2. **Maternal Immunization Outreach:** Increasing the uptake of Tdap and influenza vaccines by pregnant women is a national and state priority in combating pertussis and influenza disease burden. National Tdap and influenza vaccination rates for pregnant women are around 50% but there is a lack of state-level maternal vaccination data. MDH Immunization Program staff recognized this need and developed an innovative method for estimating these rates using birth certificate data from OVR and MIIC data.

Program Practice Description

Describe the practice goals and objectives.

The goal of this project was to use an innovative data analysis method to examine Minnesota immunization coverage rates across social determinants of health for the purpose of better targeting outreach activities.

What were the main implementation activities?

Somali Immunization Outreach:

Using MIIC and Vital Records data, county-level childhood immunization coverage rates for areas with large Somali populations were calculated for 24-month-old children of Somali descent and these rates were compared with the rest of the population. MMR rates for 24-month-old children of Somali descent born in Minnesota from 2007-2012 were significantly less than MMR rates for the rest of the population (53% vs. 88% in 2012). The MMR coverage gap identified was used by outreach staff to focus program activities on working with Somali community-based partners and health care providers that serve the Minnesota Somali population. The Somali data were used to inform the following outreach:

- Publication in *Minnesota Medicine*: www.herisa.org/wp-content/uploads/2016/03/Minnesota-Medicine-article-on-Somali-Minnesotans-MMR-vaccine-resistance.pdf
- Conducted key informant interviews to better inform outreach with Somali community members to better understand vaccine hesitancy concerns and health care providers serving a higher number of Somali children
- Consultations with five local public health agencies in jurisdictions that have Somali population centers
- Three informational forums in Twin Cities area and Greater Minnesota areas were convened in April 2016

Maternal Immunization Outreach:

Maternal data from a child's birth certificate was matched to the mother's immunization record in MIIC using name and date of birth. Birth certificate data that contains maternal demographic characteristics, prenatal care data, and delivery payment methods were used to assess maternal vaccination coverage. Analysis looked at live births in Minnesota from March 2013 through December 2014. Ninety percent of mothers were matched to a MIIC immunization record. Gestational age from birth certificate data was used to calculate the time interval that the mother was pregnant to determine if they had received Tdap and influenza vaccines during this interval. Overall, the analysis found Minnesota coverage among pregnant women with Tdap vaccine was 58.2% and with influenza vaccine was 45.9%. Demographic disparities in maternal vaccination coverage were found across race, maternal birth country/region, maternal educational attainment, insurance coverage at delivery, and adequacy of prenatal care.

Additionally, a second analysis was performed to examine maternal vaccination coverage across birth facilities, which is another variable in birth certificate data. Prior to this analysis, the program provided trainings for prenatal care providers by connecting to provider groups through professional conferences. Through the birth facilities analysis, it became apparent that the provider groups requesting immunization training presentations had higher maternal vaccination coverage as compared to

other birth facilities. Outreach staff have now developed a prenatal care provider outreach plan that targets birth facilities with low maternal vaccination coverage among their delivering patients. Through this analysis method, the program will now be able to better target provider trainings as well as identify IIS data quality issues that could be addressed by MIIC staff.

Where and when did the practice take place?

Data analyses to support ongoing outreach efforts for both projects took place at MDH in St. Paul, Minnesota. The initial Somali analysis took place in 2013 and has been updated with new birth cohorts every year since. The original analyses to support the maternal immunization outreach work took place in 2015 through 2016.

How much staff time was involved?

The Somali immunization analysis and outreach activities had 6 staff involved at approximately 2.5 FTE. The maternal immunization analysis and outreach activities had 3 staff involved at approximately 0.3 FTE.

What were the costs associated with the activity? What was the funding source?

Immunization Program's federal grant (317 and PPHF funded.)

Identify the target population that the practice affected.

Both projects targeted health care providers in Minnesota.

If partners were involved, include who was involved, and how.

Both projects included MDH Immunization Program staff. The Somali work also included Somali outreach staff and a cross divisional team as well as local public health, health care providers and faith leaders from the community. The maternal immunization work also included prenatal care providers such as OB-GYNs and nurse midwives.

Timeframe of Implementation (Start and Stop Dates)

Both outreach projects are ongoing; however, the timeframes for the analyses for each project were as follows:

- Somali data analysis was initiated in 2013 with updates from subsequent annual birth cohorts
- Maternal vaccination data analysis was initiated in 2015 and the birth facilities analysis was initiated in 2016

Evaluation Data: Was the implementation and/or effectiveness of this practice assessed? (if "yes" or "limited," provide any data that is available) ☐ Yes ☐ No ☒ Limited

Data:

Using IIS data to assess state level coverage disparities is an evidence based practice that is recommended by the U.S. HHS Community Preventive Services Task Force. The linkage of MIIC and Vital Records data has proven to be one of the most effective ways to identify state-level, population based coverage gaps that fall along important social determinants of health. While the completeness of these data sources depends on the age of the population cohort being examined, MIIC staff estimate over 80% of VFC providers are participating in MIIC. Additionally, the maternal vaccination analysis had a match rate of 90% and coverage rates found were similar to national estimates, which further supports the program's confidence in MIIC data.

Conclusions / Lessons Learned / Key Factors for Success

The Immunization Program's health equity work has improved through this innovative analysis method as immunization coverage rates for priority populations such as the Somali community and pregnant women can now be measured on a state level across several demographic variables. This data analysis method has revealed disparities that are tied to social determinants of health, which has enabled outreach staff to build connections with other public health programs and initiatives that are addressing health disparities (e.g. improvement of prenatal care and refugee health).

Additionally, this analysis work provided MIIC staff with the opportunity to more closely examine race and ethnicity data in MIIC as nearly 70% of MIIC clients prior to this analysis had "other" or "unknown" indicated in the race and ethnicity fields in MIIC due to an overwriting issue in the data submission process. The program now plans to create new fields in MIIC that capture Vital Records race and ethnicity as well as maternal and paternal birth country data. This will allow for future analyses to be conducted more quickly as the OVR and MIIC data request and matching process will no longer be necessary.

Check if any of the following are being submitted to complement your submission:

(All materials will be posted on the AIM website)

- | | |
|---|--|
| <input type="checkbox"/> Testimonials | <input type="checkbox"/> Project photo(s) |
| <input type="checkbox"/> Quote from partner/participant | <input type="checkbox"/> Publication (e.g., news story, journal article) |
| <input type="checkbox"/> Sample of materials produced | <input type="checkbox"/> Video/audio clip |
| <input type="checkbox"/> Press release | <input type="checkbox"/> Website URL |
| <input type="checkbox"/> Promotional materials | <input type="checkbox"/> Tables or graphs |
| | <input type="checkbox"/> _x_ Other : AIRA Abstract, AIRA presentation slides, HE & MIIIC/Vital data analysis Podcast, NIC Maternal Vax Abstract, Maternal Vax presentation for the NAIIS Quality Measures WG |

2016 AIRA National Conference Abstract Submission Accepted

Abstract Title: Using an IIS and Vital Statistics data to measure racial/ethnic immunization coverage disparities in Minnesota

Presenter: Sudha Setty, MPH

Additional Author: Miriam Muscoplat, MPH

Email Addresses: sudha.setty@state.mn.us and Miriam.muscoplat@state.mn.us

Abstract Summary:

Measuring disparities in preventative health activities is important for targeting effective outreach. MDH staff have linked MIIC data to Vital Statistics race/ethnicity data to uncover existing immunization disparities in Minnesota.

Abstract Body:

Background: Targeting and eliminating health disparities is a major, organization-wide objective for the Minnesota Department of Health (MDH). MDH encourages staff to use data to measure state health disparities. MDH staff for the Minnesota Immunization Information Connection (MIIC), Minnesota's Immunization Information System (IIS), have taken this opportunity to assess Minnesota's Somali population's immunization coverage rates.

The 2011 Twin Cities measles outbreak, along with anecdotes from health care providers reporting MMR vaccine resistance among Somali Minnesotans, prompted MDH to make a Somali population-specific MMR assessment. MIIC staff worked with MDH Somali Outreach staff to locate Somali population centers and get by-county childhood immunization rates for 24-month-old children of Somali descent compared with the rest of the population.

While MIIC includes race/ethnicity fields in nearly all data exchange methods, MIIC staff found that these fields were frequently overwritten with "other" or "unknown" indicators from incoming messages. MDH Vital Statistics data include race/ethnicity, as well as mother's birth country, from birth certificates. By linking MIIC immunization data to MDH Vital Statistics race/ethnicity data, MIIC staff could detect differences in coverage across racial/ethnic groups. This matching method is limited by the number of years for which race/ethnicity data are available.

Results: MIIC staff found that MMR rates for 24-month-old children of Somali descent born in Minnesota from 2007-2012 were significantly less than MMR rates for the rest of the population (53% vs. 88% in 2012). Somali Outreach staff have used these data to target outreach and engage partners in Minnesota's Somali population centers.

Future Directions: MIIC staff will use this method to examine immunization gaps in other race/ethnicity groups, different age ranges, and vaccines. Upcoming projects include: examining HPV rates by zip code for American Indian/Alaska Native adolescents and analyzing racial/ethnic immunization gaps for incoming seventh grade children post-implementation of new school entry requirements.

Using an IIS and Vital Statistics Data to Measure Racial/Ethnic Immunization Coverage Disparities in Minnesota

Sudha Setty, MPH
2016 AIRA National Conference

Health Equity Work in Minnesota

- Targeting and eliminating health disparities is major, organization-wide objective for Minnesota Department of Health (MDH)
- Objective in action: using Minnesota's Immunization Information System (IIS), the Minnesota Immunization Information Connection (MIIC), to examine immunization rates of Minnesota's Somali population

Immunization Issue

- Summer 2008: vaccine hesitancy issues raised in TV news story
 - Local story: concern about high numbers of Somali children with autism in Minneapolis special education programs
 - “It’s the vaccines,” claimed a Somali parent
- Spring 2009: MDH study of Minneapolis Early Childhood Special Education enrollment data
 - Showed higher numbers of Somali children enrolled compared to non-Somali children
 - Caveats not understood
 - Data were quoted as prevalence (“6 times higher”)
- MDH’s Autism Program responded to community concerns
 - Town hall meetings
 - Commissioner spoke with Somali community and faith leaders

Immunization Issue

- “Autism” was new to Somali parents, reported as not seen in Somalia
 - Managing their child was overwhelming
 - Resources difficult to obtain
 - Parents linked themselves to national groups that embrace the MMR- autism claim
- 2009: providers reported to MDH that Somali parents were refusing MMR
- 2011: measles outbreak prompted MDH to look closer at MMR coverage rates

MIIC Use

- MIIC is Minnesota's statewide IIS
 - Established in 2002
 - Contains over 78M immunizations for 7.8M clients
 - Most complete source of immunization data in MN
- MDH Immunization Program examined MIIC data for childhood immunization coverage gaps between children of and not of Somali parentage
 - Focus on 1 MMR by 24 months
 - Eventually expanded to other childhood vaccines by 24 months

Sources for R/E Data: Vital Statistics

- MIIC receives weekly files from Vitals to load into MIIC
 - Standing Internal Data Use Agreement in place with Office of Vital Records
 - New births
 - Deaths
- Contains race/ethnicity data for mother and father (if present on birth certificate) for all births since 2004
 - MIIC populates race/ethnicity for child based on mother's information from birth certificate
- Birth country of mother
 - Father's birth country also a source if present on birth certificate
 - Not currently part of weekly file or stored in MIIC tables

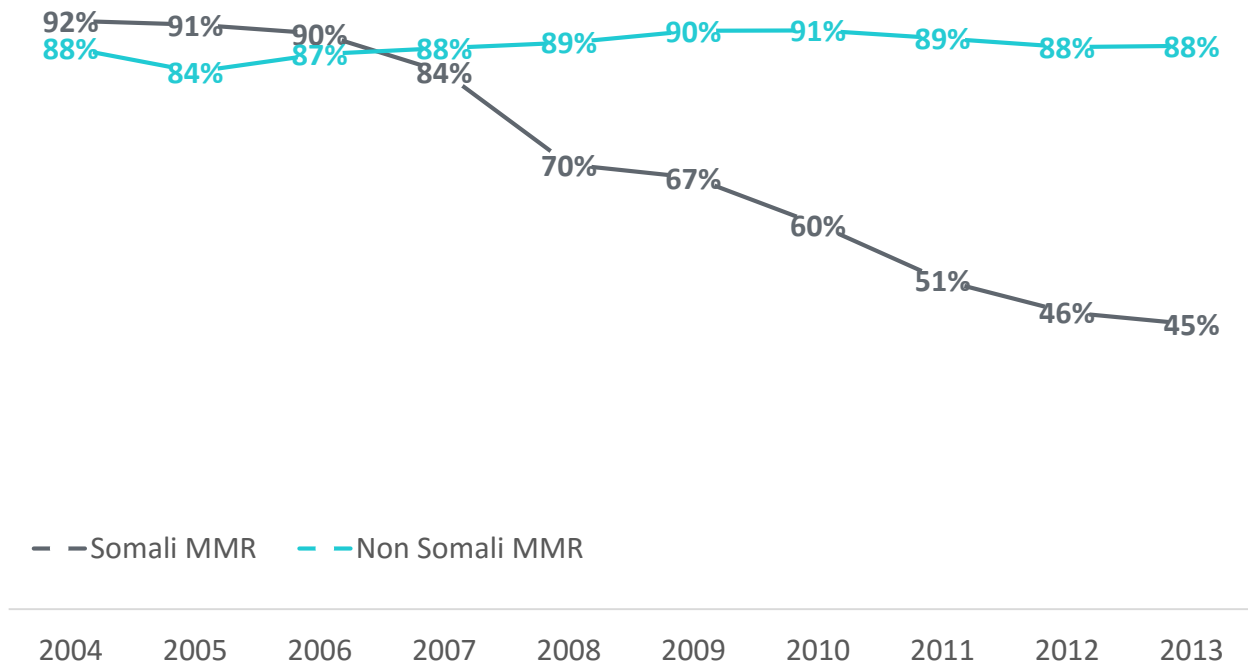
Sources for R/E Data: Providers

- Race and ethnicity information required for incoming HL7 messages
 - “Required or Empty” – if organization has this information, it is required
- Not required for other formats
- Not displayed in user interface/client record, only in background data tables
- Findings from initial analysis in 2012
 - 70% of records have “Other” or “Unknown” as race
 - Incoming messages appear to over-write race data
 - Still investigating details

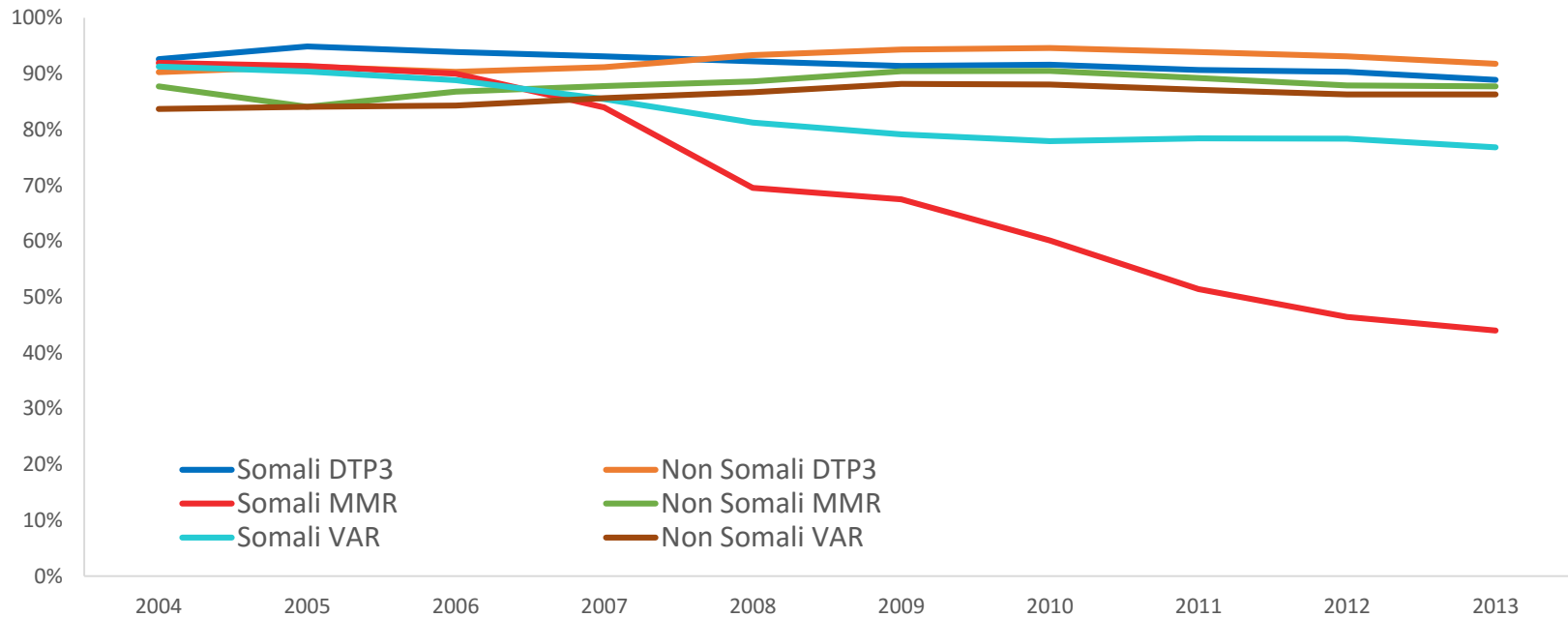
Race/Ethnicity-Specific Analysis

- Requested birth cohort data by year from Vital Statistics
 - Birth certificate number, birth country of mother or father, and race/ethnicity
- To identify Somali population:
 - Used birth country of mother or father to attribute “Somali” status
 - If race or ethnicity said “Somali,” attributed “Somali” status
- Rest of population was “not Somali”
- Matched race/ethnicity/birth country data from Vitals to MIIC immunization records using birth certificate number
- Ran up-to-date immunization coverage rates for all childhood vaccines

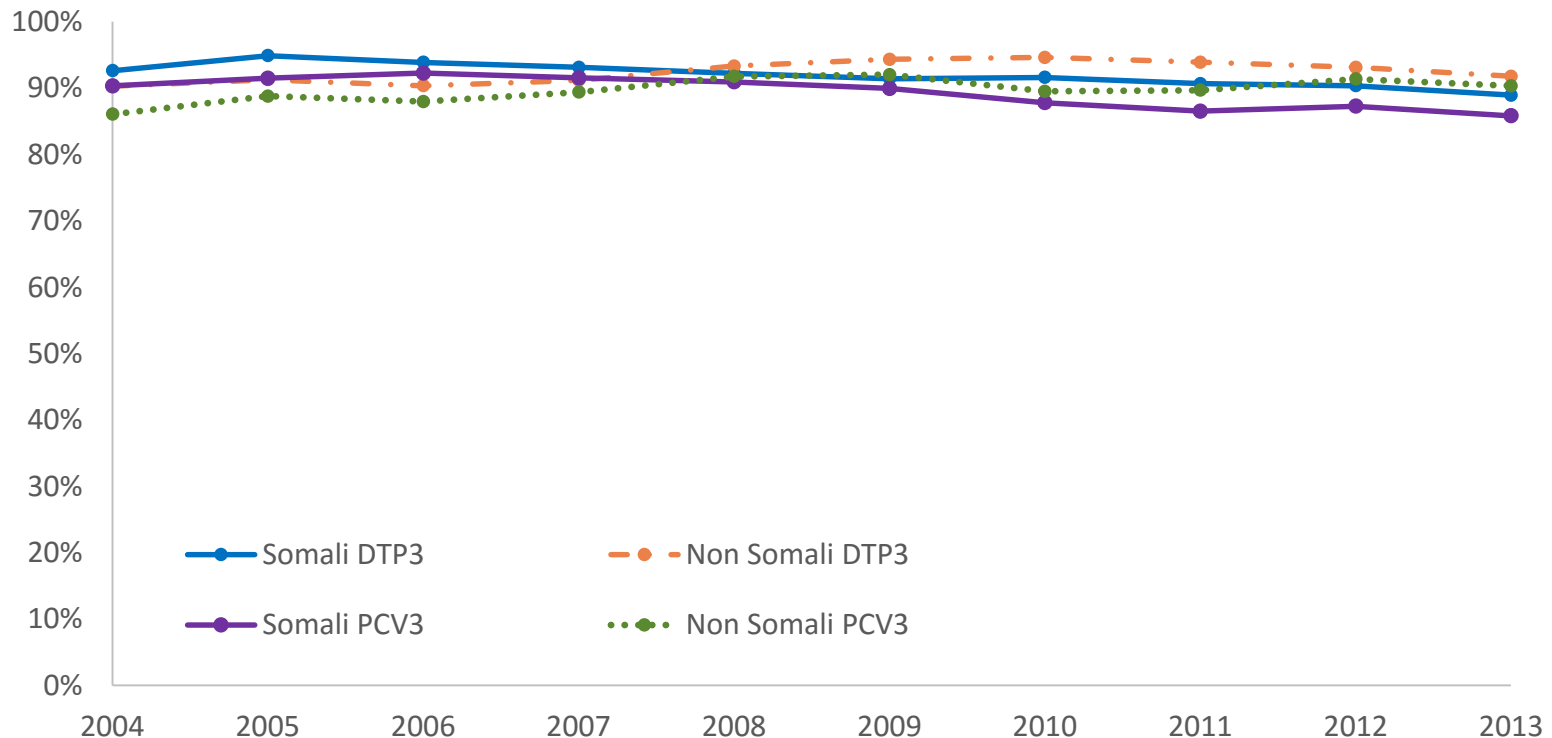
Comparison of +1 MMR Rates by 24 Months for Children of Somali and Non-Somali Descent, by Birth Year



Comparison of Immunization Rates by 24 Months for Children of Somali and Non-Somali Descent, by Birth Year



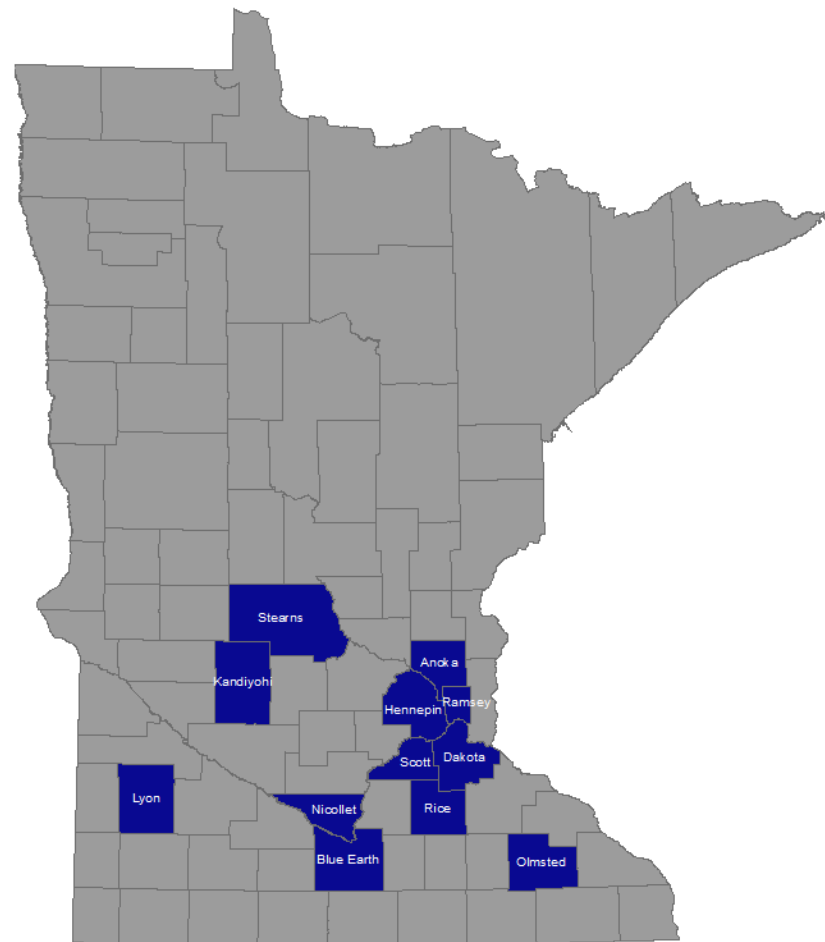
Comparison of +3 DTaP and +3PCV by 24 months for Children of Somali and Non-Somali Descent, by Birth Year



Somali Immunization Rates: Population Centers

- Analysis of Somali population centers throughout Minnesota
 - Counties with >20 Somali births/year per Vital Statistics data
- Found similar gaps in immunization in Somali population centers throughout the state

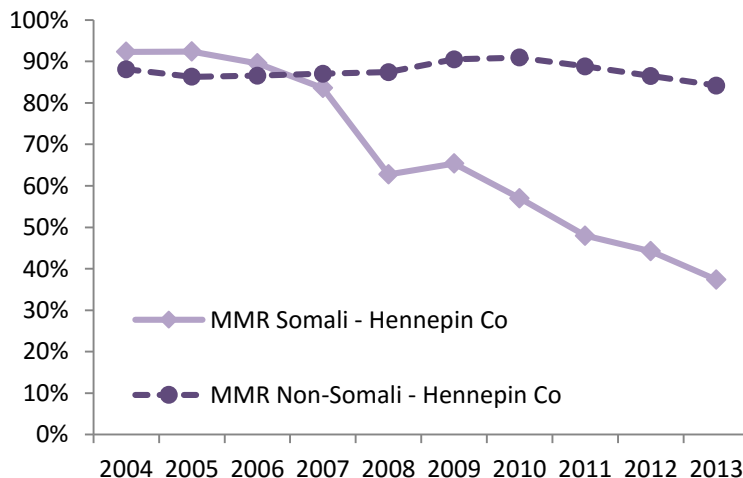
Somali Population Centers



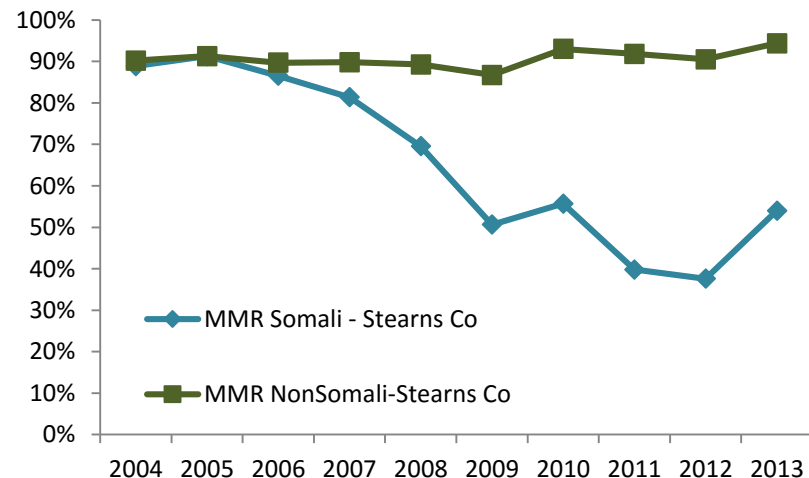
■ Limited or no Somali Population
■ Centers of Somali Population

Comparison of +1 MMR Rates by 24 Months for Children of Somali and Non-Somali Descent in Two Counties, by Birth Year

Hennepin County



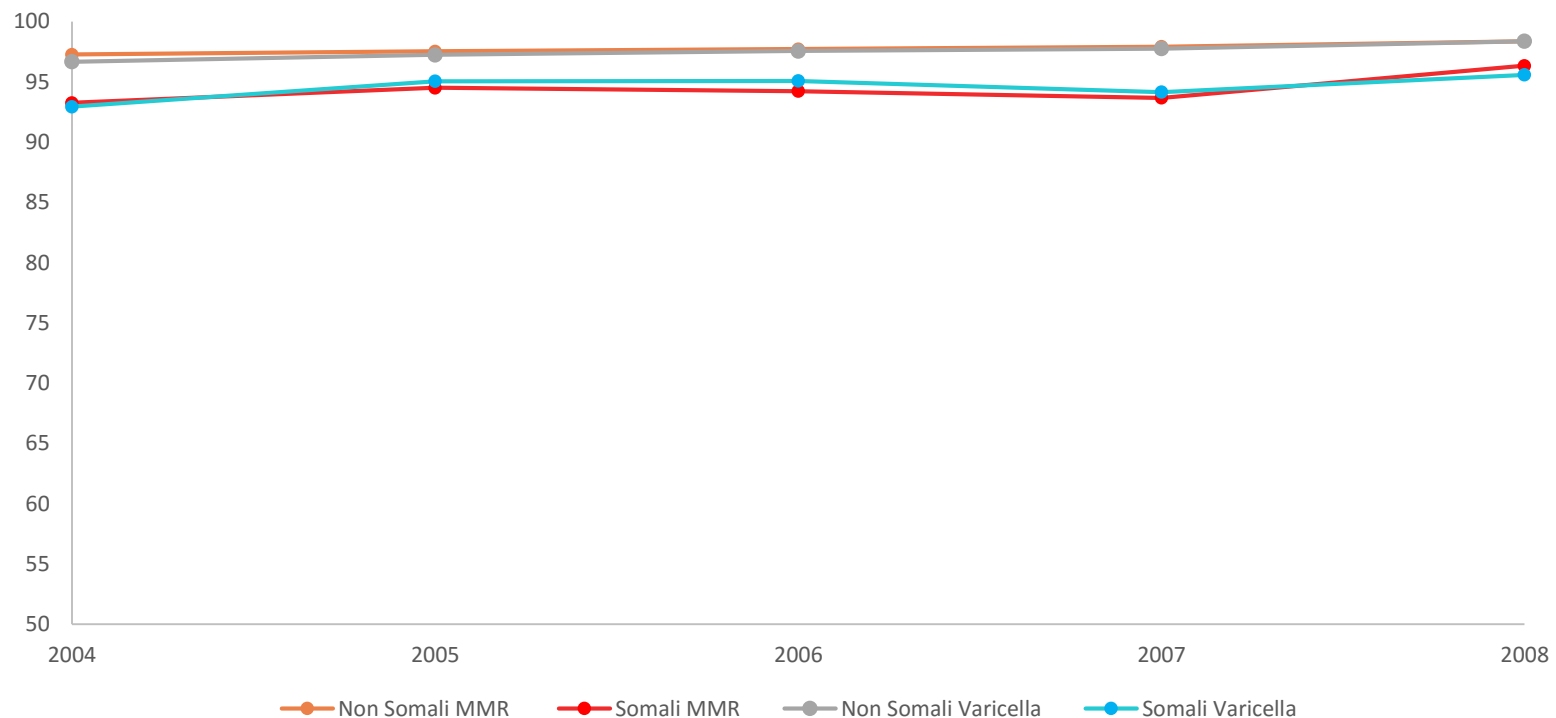
Stearns County



72 Month Analysis

- Examined 2004-2008 birth cohort data to see if vaccine hesitancy was reflected in rates for older children of Somali descent
- Implications for school entry
- Children of Somali descent appear to receive 2 doses of MMR and Varicella vaccine by 72 months at same rate as non-Somali children

Comparison of Selected Immunization Rates by 72 months in Children of Somali Descent versus Non-Somali, 2004-2008



Public Health Interventions

- Initial approach: broad outreach to Somali parents to encourage immunization
 - Promoted Mayo's YouTube videos on autism and on immunizations
 - Developed travel public service announcement
 - Developed video interview with mother of child who almost died from measles
- Diverse media project – multiple ethnic and racial media outlets
 - Radio announcements
 - News articles and ads

Public Health Interventions

- Take two: regrouped and refocused efforts
- Developed MDH cross-division team
- Hired Somali staff
 - RN – Children & Youth with Special Health Needs (CYSHN)
 - Outreach worker for Immunization Program

MDH Work Plan

Provider/partner relationships

- Re-engage leadership in the community
- Pull in interested health professionals

Education and outreach

- Oral approach – smaller groups
- Three audiences: parents, influencers (Imams, doulas, mosque gatekeepers, interpreters, outreach workers), and clinicians

Outbreak control/mitigation

- Increase community awareness of low rates through radio interviews, Somali newspapers, Somali TV
- Share internal planning and response strategy with local public health partners
- Outreach to Somali-owned day care centers and Somali-attended charter schools

Lessons Learned

- Quality of race/ethnicity data in MIIC
 - Check IIS tables for race/ethnicity data usability before moving forward
 - Test records to see how incoming messages affect race/ethnicity fields
- Sensitive data
 - Avoid using accusatory and stigmatizing language regarding community beliefs and views
 - Have a culturally-competent team use data and communicate about rates
 - Recruit and work with members of the impacted community to gain buy in, legitimacy, and valuable perspective
- Successful project!

Next Steps

- Continue to track immunization coverage for Somali birth cohorts every year
 - Supply data to outreach staff to direct public health interventions
 - Continue to examine up-to-date status for vaccines at 72 months to see if Somali children receive necessary vaccines for school
- Use same method to identify and examine immunization gaps within other race/ethnicity/birth country categories
 - Childhood
 - Adolescent

Thank you!

Sudha Setty, MPH

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Exploring Minnesota Maternal Vaccination through MIIC & Vital Records Data

**NAIIS Quality Measures Work Group Planning Call
September 30, 2016**

Annie Fedorowicz, MPH
Adult Immunization Coordinator

Miriam Muscoplat, MPH
Assistant MIIC Manager & MIIC Epidemiologist

Presentation Outline

- MN Immunization Program Background
- Minnesota Immunization Information Connection (MIIC) Background
- Exploring MN Maternal Vaccination through MIIC & Vital Records Data
- Outreach to Birth Facilities with Low Maternal Vaccination Rates
- Takeaways

Immunization Program Background

- **5 year strategic plan:**
 - Target outreach to pregnant women
 - Deepen relationships with providers serving pregnant women

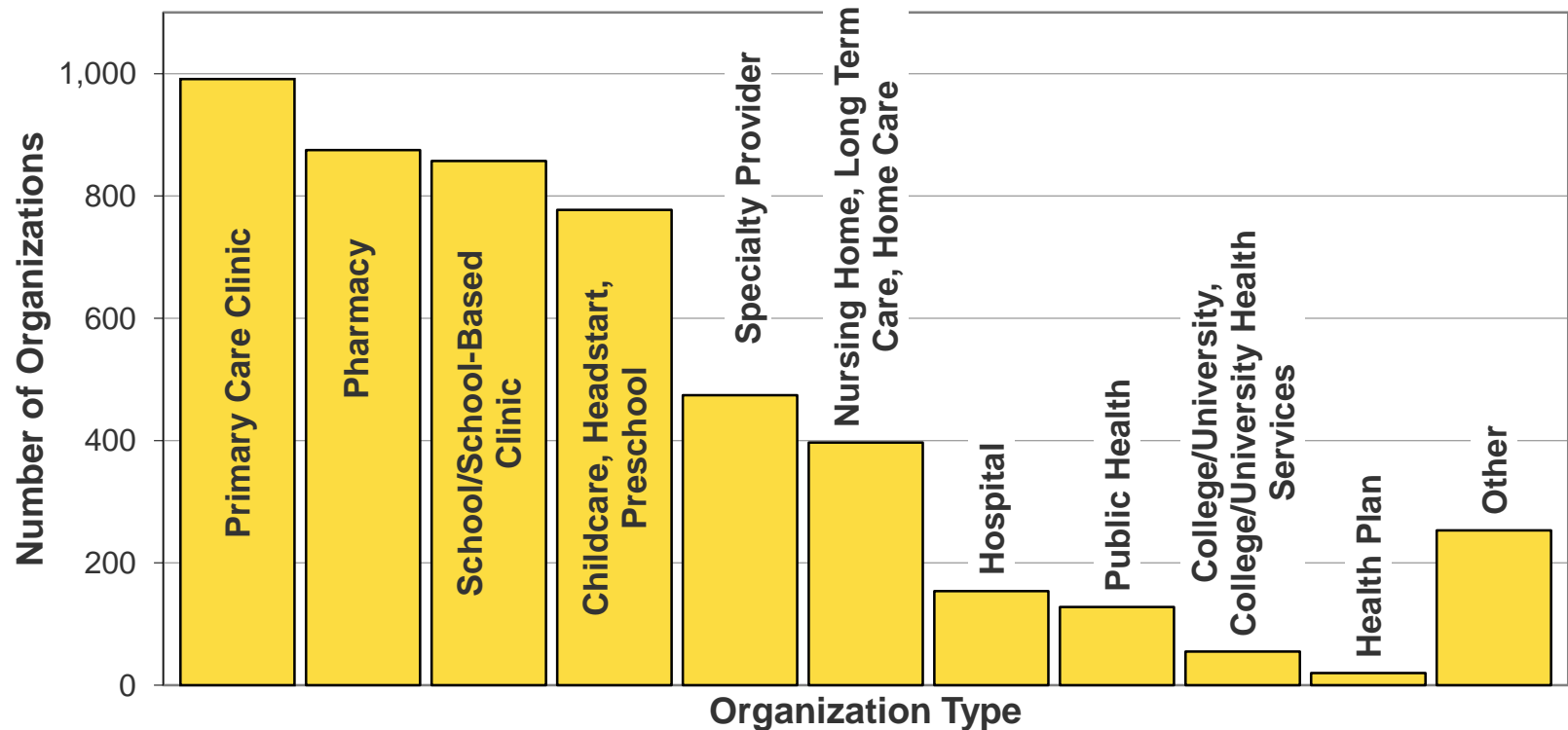


MIIC Background

- **MIIC is a lifespan, population-based IIS***
- **Created in 2002**
- **Most vaccinating providers participate**
- **Implied consent (opt-out) system for clients of all ages**

MIIC Provider Participation

Number of Active Organizations in MIIC by Type, July 2016



Exploring MN Maternal Vaccination through MIIC & Vital Records Data

- **Methods:**

- Live births Mar. 2013 – Dec. 2014
- Matched mother's name and DOB from Vitals to MIIC (MN IIS)
 - 89.5% match rate in MIIC!
- Assessed MIIC vaccination history across demographics from Vitals



Minnesota Immunization Information Connection (MIIC): www.health.state.mn.us/divs/idepc/immunize/registry/index.html

Office of Vital Records: www.health.state.mn.us/divs/chs/osr/index.html

Using Birth Certificate Data

- **Examined maternal Tdap and flu vaccination across the following demographic variables:**
 - Prenatal care visits
 - Health insurance status at delivery
 - Race and ethnicity
 - Maternal birth country
 - Place of delivery (birth facility)
 - WIC status
 - Maternal educational attainment
 - Marital status

Minnesota Tdap & Flu Vaccination Coverage Among Pregnant Women By Health Insurance Coverage & Adequacy of Prenatal Care, Live-births March 1, 2013 – December 31, 2014¹

Demographic Characteristics	Study Population Count	Tdap Vaccination	Tdap Unadjusted RR ²	Influenza Vaccination	Influenza Unadjusted RR ²
Overall	113,730	58.2%	---	45.9%	---
Health Insurance Type ³					
Private	74,053	60.2%	Ref.	48.2%	Ref.
Medical Assistance	33,629	56.8%	0.94*	43.0%	0.89*
Military	1,114	60.4%	1.00	45.3%	0.94
Uninsured	2,499	31.3%	0.52*	26.5%	0.55*
Prenatal Care					
Adequate	87,094	61.2%	Ref.	48.6%	Ref.
Intermediate	13,241	53.5%	0.87*	43.5%	0.90*
Inadequate	13,395	43.8%	0.72*	32.3%	0.67*

¹ Data presented is under review; potential MMWR publication

² RR = relative risk

³ Missing values for health insurance type (n = 657) & insurance type designated as “other” (n = 1,778) not included in table

* Significant at p < 0.0001

Minnesota Tdap & Flu Vaccination Coverage Among Pregnant Women By Race & Ethnicity, Live-births March 1, 2013 – December 31, 2014¹

Demographic Characteristics	Study Population Count	Tdap Vaccination	Tdap Unadjusted RR ²	Influenza Vaccination	Influenza Unadjusted RR ²
Overall	113,730	58.2%	---	45.9%	---
Race ³					
White	88,209	58.7%	Ref.	46.9%	Ref.
Black	12,192	55.7%	0.95*	39.0%	0.83*
Native American	2,174	47.2%	0.80*	39.2%	0.84*
Asian Indian	1,658	61.5%	1.05	48.0%	1.02
Asian	6,879	60.0%	1.02	47.4%	1.01
Ethnicity					
Non-Hispanic	107,716	58.4%	Ref.	46.0%	Ref.
Hispanic	6,014	55.3%	0.95*	45.0%	0.98

¹ Data presented is under review; potential MMWR publication

² RR = relative risk

³ Race designated as "other" (n = 2,618) not included in table

* Significant at p < 0.0001

Minnesota Tdap & Flu Vaccination Coverage

Among Pregnant Women By Maternal Birth Country or Region, Live-births March 1, 2013 – December 31, 2014¹

Demographic Characteristics	Study Population Count	Tdap Vaccination	Tdap Unadjusted RR ²	Influenza Vaccination	Influenza Unadjusted RR ²
Overall	113,730	58.2%	---	45.9%	---
Maternal Birth Country/Region ³					
United States	95,889	58.9%	Ref.	46.8%	Ref.
Africa	6,750	50.7%	0.86*	37.0%	0.79*
Somalia	3,402	40.3%	0.68*	40.3%	0.58*
Western Europe & Canada	974	52.2%	0.89*	40.3%	0.86*
Asia	6,657	58.5%	0.99	45.9%	0.98
Central & South America	2,460	59.9%	1.02	49.2%	1.05
Eastern Europe	787	38.5%	0.65*	23.5%	0.50*

¹ Data presented is under review; potential MMWR publication

² RR = relative risk

³ Missing values for maternal birth country or region (n = 48) & maternal birth country or region designated as "other" (n = 165) not included in table

* Significant at p < 0.0001

Outreach to Birth Facilities with Low Maternal Vaccination Rates

- **Assessed maternal 2014 flu and Tdap vaccination**
- **15 facilities with $\leq 50\%$ flu and Tdap vaccination rates**
- **22 facilities with $\leq 50\%$ flu vaccination rates**
 - 11 with $\geq 65\%$ Tdap vaccination rates

Takeaways

- **Vital Records and IIS data can be used to explore maternal vaccination coverage on a state level**
 - Maternal vaccination coverage rates across demographic variables may highlight disparities
 - Dependent on states' IIS adult data
- **Using coverage to support future data driven interventions**

Questions?

- **Contact information:**

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**Protect
those you
love.**

Immunize.

Pregnant women should
get **flu and whooping
cough** vaccines during
every pregnancy to
protect themselves and
their baby.

MDH Minnesota
Department of Health



2016 National Immunization Conference (NIC) Abstract Submission Accepted

Title: Immunization During Pregnancy: Protecting Mom and Baby

Abstract authors' information to include:

- Names: Annie Fedorowicz, MPH; Miriam Muscoplat, MPH; Denise Dunn, RN, MPH; Margaret Roddy, MPH
- Affiliation: Minnesota Department of Health (MDH)
- City/state/country: St. Paul, MN, USA
- Email addresses: anna.fedorowicz@state.mn.us; miriam.muscoplat@state.mn.us; denise.dunn@state.mn.us; margaret.roddey@state.mn.us

Presenter: Annie Fedorowicz, MPH

Descriptive Summary Abstract:

Background: Increasing the uptake of Tdap and influenza vaccines by pregnant women is a national and state priority in combating pertussis and influenza disease burden. National influenza vaccination rates for pregnant women are around 50%, well below the Healthy People 2020 goal of 80%. Considering the important role prenatal care providers play in vaccinating pregnant women and recognizing how important they could be in promoting infant immunization, the Minnesota Department of Health (MDH) identified feasible strategies to guide the program's future outreach activities. Additionally, recognizing the lack of state-level maternal vaccination data, we developed an innovative method for estimating these rates.

Setting: Strategies developed target prenatal care providers who work in clinical settings (family physicians, OB-GYNs, midwives) and professionals who work in non-clinical settings where pregnant women receive health education (birthing educators, family home visiting nurses).

Population: Strategies developed ultimately target pregnant women and their families.

Project Description: The MDH Immunization Program identified pregnant women as a priority population in a five year strategic plan. Through guidance from a work group of key stakeholders that serve pregnant women, short and long term strategies were developed to guide future patient, provider and health educator outreach activities. An important first step of this work was estimating Minnesota's maternal vaccination coverage rates. The program used maternal demographic information from birth certificates and the Minnesota Immunization Information Connection (MIIC) to estimate Tdap and influenza vaccination rates among pregnant women, as well as examine coverage disparities.

Results/Lessons Learned: Establishing a work group of prenatal care providers from clinical and non-clinical settings supported the development of comprehensive, feasible strategies for patient, provider and health educator outreach. Additionally, MIIC was found to be a relatively complete source of data for estimating state maternal vaccination rates, with Tdap coverage at 58.2% and influenza vaccination coverage at 45.9%.

Public Health Informatics Institute (PHII) Podcast

Podcast Title: Working toward health equity using information systems

MDH Presenter: Sudha Setty, MPH

Interview Summary:

Sudha Setty from the Minnesota Immunization Information Connection spoke about the ways her department used IIS data to explore questions related to health equity. The analysis not only provided a clearer picture of differences in immunization rates among populations in the state, it also impacted outreach initiatives at the Minnesota Department of Health.

Full Podcast Interview Available Online:

<http://phii.org/blog/podcast-working-toward-health-equity-using-information-systems>