DEPARTMENT OF HEALTH

Public Health Response Account: 2019 Expenditures

REPORT TO THE MINNESOTA LEGISLATURE

January 2020

Public Health Response Account: 2019 Expenditures

Minnesota Department of Health
Infectious Disease Epidemiology, Prevention and Control Division
PO Box 64975
St. Paul, MN 55164-0975
651-201-5414
www.health.state.mn.us

As requested by Minnesota Statute 3.197: This report cost approximately $2,225 to prepare, including staff time, printing and mailing expenses.

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Contents

Introduction and Background

Minnesota Statues, section 144.4199, subdivision 8 requires the Commissioner of Health to:

> "Submit a report to the chairs and ranking minority members of the house of representatives Ways and Means Committee, the senate Finance Committee, and the house of representatives and senate committees with jurisdiction over health and human services finance, detailing expenditures made in the previous calendar year from the public health response contingency account."

During the winter/spring of 2017, the Minnesota Department of Health (MDH) dealt with three large infectious disease outbreaks: multi-drug resistant TB (MDR TB) in Hmong elders predominantly in Ramsey County, syphilis across the state with clusters in tribal communities, and measles in unvaccinated individuals primarily in Hennepin County.

The Minnesota legislature and Governor Dayton created the Public Health Response Contingency Account (hereinafter Public Health Response Fund) in 2017 to enhance Minnesota's state and local response to urgent public health threats. The law provides $5 million for the account but limits its uses to major infectious disease outbreaks.

On July 10, 2017, MDH notified the Governor, Minnesota Department of Management and Budget (MMB), and legislative leaders of the need to access the public health response account. MMB submitted a request to the Legislative Advisory Commission (LAC) on MDH's behalf for $613,583. MDH requested these funds to help respond to tuberculosis, syphilis, and measles outbreaks. MDH had also requested resources from the Centers for Disease Control and Prevention (CDC) to help address these outbreaks, but had not received any funding at that time. Requests were based on the additional resources that were needed to augment the ongoing outbreak response, both at MDH and from tribal and local public health partners.

This report provides a summary of our activities and accomplishments because of funding received from the Public Health Response Contingency Account in 2017 that was expended in 2019. (A report was submitted to the legislature January 2019 that described the activities and accomplishments in 2018.) This will be the final report of expenditures for the oubreaks of infectious disease certified in July 2017.

Detailed information on expenditures is included at the end of the report.

Program Specifics

Tuberculosis

Public Health Contingency Funding activities related to Tuberculosis (TB) concluded in 2018. Therefore there is no update to provide for this report.

Syphilis

Syphilis is a sexually transmitted disease that can be treated with antibiotics. If left untreated, syphilis can affect the nervous system and cause paralysis, sensory deficits and dementia. Moreover, pregnant women infected with syphilis who are not treated can pass it on to their fetus. Congenital syphilis can result in miscarriage, stillbirth, low birth weight, or death shortly after birth. Babies born with congenital syphilis can have bone deformities, anemia, enlarged liver and spleen, jaundice, blindness or deafness, meningitis, skin rashes, seizures, and may be developmentally delayed.

Syphilis is on the rise in Minnesota and nationally. From 2005-2015, rates of primary/secondary syphilis in Minneosta increased 246%. In 2018, there were 918 reported cases of syphilis in Minnesota. Ten cases of congenital syphilis in infants were reported in 2018. This is a rate of 15.1 per 100,000 live births which is the highest Minnesota has ever reported and represents a 400% increase from 2017. Syphilis continues to be a concern in Minnesota. For more information on syphilis, see the Public Health Response Account: Update and Expenditures, January 2018 Report (www.leg.state.mn.us/docs/2018/mandated/180318.pdf)

Outbreak Status

As of October 24, 2019, the total number of outbreak related syphilis cases had reached 218. A case for this outbreak is defined as any reported syphilis case diagnosed in 2016, 2017, 2018, or 2019 that resides in Mille Lacs County, Cass County, Beltrami County, Mahnomen County, or Itasca County with known or reported drug use or a reported case of syphilis that is linked to a case that is part of the outbreak.

- 90 (41%) cases are male and 128 (59%) cases are female.
- 18 (14%) of the female cases were pregnant at the time of report. All pregnant females have been treated with antibiotics.
- Communities of color are disproportionately affected:
  - 185 (85%) cases among people of color,
  - 27 (12.4%) cases among White non-Hispanic people.
- 83 (38%) of the cases have admitted or have a known history of drug use.
- 163 (75%) cases have had disease investigation interviews. These interviews are used to identify sexual partners who may have been exposed to syphilis, so that they can be tested and treated if appropriate, to help stop the spread of disease. Of those interviewed:

- 12 (6%) have refused to be interviewed,
- 12 (6%) have been unable to be located,
- 16 (7%) were congential cases (not interviewed).

While we continue to see new cases of syphilis, the outbreak has shifted from Mille Lacs County to northwestern Minnesota, mainly in Beltrami and Cass Counties. We only had four cases of syphilis in Mille Lacs County in 2019, reflecting their outreach work in testing and treating cases as a result of the Public Health Response Funds.

MDH received a total of $288,503 to respond to the ongoing syphilis outbreak in 2017.

In October 2017, MDH hired a full-time, temporary, syphilis prevention coordinator to oversee the syphilis prevention projects conducted with response funds.This position ended in 2018. Funds were also used for tribal grants and for jail screening. Tribal grants continued through March of 2019. A final summary of activities pertaining to the syphilis response follows.

Syphilis Prevention Projects Update

Project Summary through March 2019

Jail Screening

During disease investigation interviews in 2016-2017, MDH found a significant number of syphilis cases had a history of incarceration and drug use. The MDH syphilis prevention coordinator developed relationships with three Minnesota county jails (Mille Lacs County, Crow Wing County, and Scott County) to implement a screening project. The project targeted young women of childbearing years and inmates arrested on drug charges to:

- Identify and treat syphilis cases among individuals booked on drug-related charges in the jails.
- Prevent cases of congenital syphilis by identifying and treating cases of syphilis among pregnant females in the jails.

For the duration of the project, the three participating jails have identified and appropriately treated 11 new cases of syphilis. See Table 1.

Table 1. Summary of Jail Screening Results through March 2019

Total Tested	County Jails	Positive	Negative
55	Scott County	1	54
3	Mille Lacs County	2	1
13	Crow Wing County	8	5

The challenge for this project will be to continue to support Tribal and jail partners in developing the capacity for ongoing syphilis prevention and response to clusters of disease, sustainable beyond the state Public Health Response Fund. This syphlilis response project was successful in strengthening our Tribal and jail partnerships across Minnesota. Both MDH staff and Tribal Health partners staff provided education and encouraged syphilis testing through multiple community outreach events. The jail pilot effectively identified and treated multiple new cases of syphilis

Tribal Grant Agreements

Some of the Public Health Response Funding was designated for two tribal grants for syphilis prevention. These grants continued through March 2019. MDH supplemented these funds by providing each grantee with $10,000 in HIV prevention dollars to purchase syringe service supplies.

Mille Lacs Band of Ojibwe

During the grant period, Mille Lacs Band of Ojibwe conducted 76 syphilis tests, provided 60,000 sterile syringes, and collected 458 one quart sharps containers. The initial goal for the syringe services program was to distribute 5,000 clean/new syringes during a six-month period; however, the program averaged 6,500 syringes distributed per month. Availability for clean syringes helps to stop the spread of bloodborne pathogens like HIV and hepatitis B and C. Syphilis awareness outreach has occurred through alcohol and drug inpatient and outpatient clinics, online through Facebook, teen pregnancy prevention programming, community flyers, and various community events.

White Earth Nation

The White Earth Nation has integrated syphilis prevention messaging and testing referrals into their mental health treatment and syringe services programs. A syringe service program provides services to reduce the harms associated with drug use, and prevent HIV and viral hepatitis infections. See Syringe Service Programs (www.health.state.mn.us/people/syringe/ssp.html) for more information on MDH's syringe service program.

White Earth Nation provided rapid syphilis screening training for their public health nurses and behavioral health staff, and implemented an evidence-based intervention to educate their community on syphilis and HIV called Native Women Speaking. During the grant period, White Earth Nation conducted 19 syphilis tests, finding 2 confirmed positive tests. This is a 10.5% positivity rate. The organization also distributed 51,889 sterile syringes and collected 45,249 used syringes.

Measles

In previous reports we described our work on the MMR Vaccine Survey. This provides a summary of the findings and outreach efforts. The Public Health Response Fund supported the Somali outreach staff person who conducted the interviews for this survey.

MMR Vaccine Survey Follow-up

During the 2017 measles outbreak there was an increase in Somali families that vaccinated their children with MMR vaccine. Community leaders and Somali MDH staff asked for a project to follow-up with these families to learn more about their experience vaccinating their children with MMR and to help improve the way we work with this community. The goals of the survey were to learn more about what influenced these families' decisions to vaccinate their children with MMR and about their experience with vaccinating their child and the clinic visits.

We identified Somali children that were overdue for their first dose of MMR vaccine prior to the outbreak, who were then vaccinated during the outbreak period. Participants were identified using MIIC, the statewide immunization information system. The Somali-speaking staff person hired using the Public Health Response Funds conducted telephone interviews with a random sample of these families from the seven county metro area (Anoka, Carver, Dakota, Hennepin, Ramsy, Scott, and Washington counties). She spoke with 300 families and administered a 12-question telephone interview. Interviews were primarily conducted in Somali.

Key Findings

Most families got the MMR vaccine because of fear of measles in the community.

- 95% of families reported fear of measles as the most influential reason to get their children vaccinated with MMR.
- Other reasons for vaccination were:
  - Parents thought their child was now old enough.
  - School or child care required vaccinations.
  - Child was excluded from school or child care during the outbreak.
  - Upcoming travel.
  - Recommendation to vaccinate from a family member or friend.
  - Recommendation to vaccinate from a health care provider.

When getting their MMR vaccine, most families had positive clinic experiences.

- 92% of families said their visit was good or normal.
  - Families liked hearing more information about measles, MMR vaccine, and what to expect after vaccination.
  - Families said having more time to ask questions about MMR vaccine and measles led to them having a good clinic experience.
  - Several families said they felt reassured after hearing from their provider that MMR vaccine does not cause autism.
- Families that had bad clinic experiences often encountered verbal comments that were disparaging and felt judged for not vaccinating earlier. Others did not receive enough information about MMR vaccine and measles at their clinic visits.
  - Not receiving information about what to expect after vaccination and what to do if side effects occur was also reported among parents that had a bad clinic experience.
  - Some families felt singled out during the measles screening process that occurred at many of the health care clinics in the metro, during the outbreak.

Families felt that vaccinating their children was a good decision.

- 95% of families said the decision to vaccinate was a good decision, especially in the midst of a measles outbreak.
- The 5% that regretted their decision had described either having a negative clinic experience or had mentioned their child had experienced a side effect after receiving the MMR vaccine.

Many families still showed some hesitation to vaccinate on time with MMR vaccine.

- To learn more about parent's confidence in their decision to vaccinate, we asked them, "If you were to have a future child, would you vaccinate that child at the recommended age of 12 months?"
- 40% of families said they would vaccinate on time.
- About 60% of families said they would wait to vaccinate their child until they were older than 1 year.

Families reported that children did well after MMR vaccination.

- 80% of families said they did not have any concerns after their child was vaccinated. Many of these families reported that their children were doing well, and were active and playing soon after receiving the MMR vaccine.
- Most of the concerns or side effects mentioned by families were normal for the MMR vaccine and were mild. These concerns included fever, pain at the injection site, mild rash, and crying. Families reported that these symptoms resolved after several days.
- A few families worried that they saw changes in their child's speech or behavior after the MMR vaccine. We took all of these concerns seriously and provided families with resources if they had questions or concerns about their child's development.
  - We followed up with these families after the initial interview, and for those we were able to reach, the concerns around speech or behavior had gone away.
  - In two instances, we followed up with health care providers to obtain more information. Upon follow-up with the providers, we found that the concerns the parents had mentioned during the interview were present before the child had received the MMR vaccine.

What These Findings Tell Us

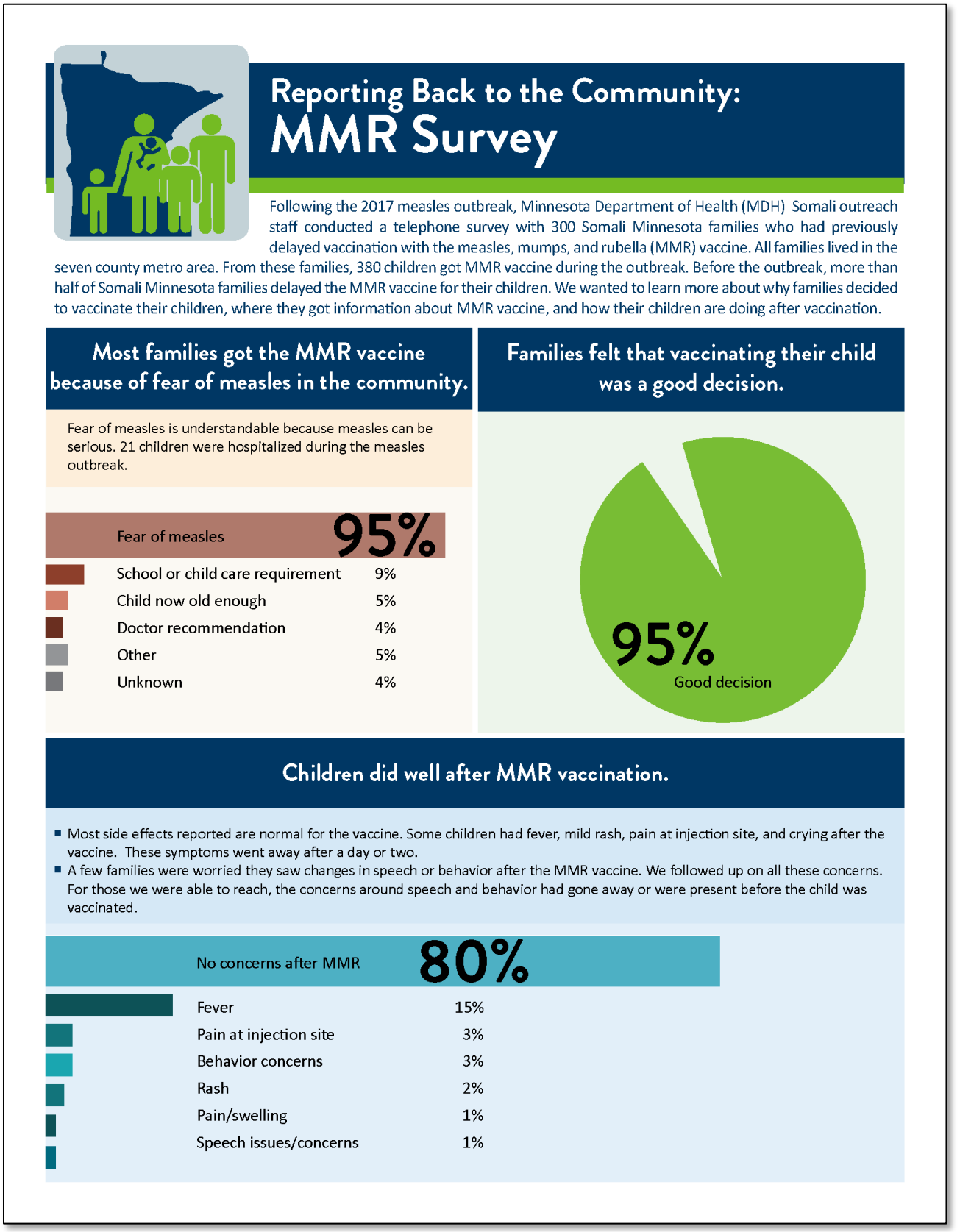
Fear of measles disease as a key motivator for vaccination shows us this community takes measles seriously and parents vaccinated their children to protect them. It is important to make sure parents know that measles can still occur in Minnesota, and we are currently seeing a lot of measles activity in the United States and across the world. When asked, families said they trust their doctors and their schools for information on vaccines, disease, and childhood speech and development. This means that the positive interactions in the health care setting are very important for helping families get accurate information about measles and MMR vaccine. While we did not see everyone change their minds about the MMR vaccine after the outbreak, it is encouraging to see that roughly 40% of parents, from a previously hesitant subset of parents, will now vaccinate future children on time with MMR vaccine. This also shows us that our work is not done. There remains a sizable subset of the Minnesota Somali population that has concerns about the MMR vaccine. Concerns that are significant

enough for them to delay vaccination for a future child. There also was a large number of Somali families that had children who remained unvaccinated in the face of a large measles outbreak.

What We Are Doing With These Findings

- We have shared the findings with participants and key leaders in the Somali community. Several expressed gratiude to MDH for conducting the survey and sharing the results in the Somali language. Several families have maintained contact with the staff member who conducted their original interviews. She has been a trusted resource for them when they have ongoing questions about immunization and child development.
- We are educating and encouraging health care providers to:
  - Take time to explain to parents what to expect after vaccination (i.e., mild fever, pain at injection site) and what they should do if they have concerns (i.e., give pain medicine, call clinic).
  - Use interpreters to help provide detailed information.
  - Approach vaccine conversations with empathy. Listen to parents' concerns and avoid judgement when answering questions.
  - Share information about this survey with families. Let them know that children vaccinated during the 2017 measles outbreak did well after vaccination and did not have serious side effects.
  - Talk about measles outbreaks that are occurring around the world (including Europe, Africa, and Asia). It is possible for measles to come back to Minnesota, and vaccination is the best way to protect children from measles.
  - Recommend MMR vaccine at every visit, even if the family previously refused vaccination.
  - Build trust with families by continuing the conversation, taking time to answer questions, and validating their concerns.
- We are encouraging families to:
  - Bring a list of questions to your doctor's appointment. You can also ask to have more time with your doctor when you call to make the appointment.
  - Get information about MMR vaccine and childhood speech and behavior from trusted resources, such as your doctor and schools.

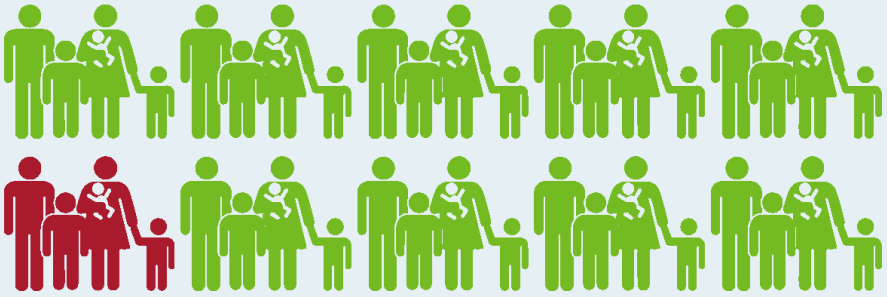
Figure 1. Summary of the MMR Survey for the Community (also translated into Somali)



When getting their MMR most families had positive clinic experiences.

92% of families had an overall good clinic experience.

- Especially when they received information about measles, MMR vaccine, what to expect after vaccination, and had time to ask the doctor questions.



8% of families had some bad clinic experiences.

- Especially when they felt judged for not vaccinating on time, did not receive information about MMR vaccine or side effects, and did not have things explained clearly.

When asked, families said they trust their doctors and their schools for information on vaccines, disease and childhood speech and behavior.

What you can do if you have questions or concerns:

Bring a list of questions to your doctor's appointment. You can also ask to have more time with your doctor when you call to make the appointment.

Get information about MMR vaccine and childhood speech and behavior from trusted resources, such as your doctor, schools, and these websites:

- The MDH Measles (health.mn.gov/diseases/measles/) website has information on measles and the MMR vaccine in English and Somali.
- Help Me Grow (http://helpmegrowmn.org/HMG/) is a website with information on childhood development in English and Somali.
- Autism Speaks (www.autismspeaks.org) has information on symptoms and causes of autism.

Measles outbreaks are occurring around the world (including Europe, Africa and Asia).
This means measles could come back to Minnesota at any time.
MMR vaccine is the best way to protect your child from measles.

What MDH will do:

- Share what we learned with health care providers, clinics, schools and child care.
- Discuss the importance of allowing time for questions during appointments with health care providers.
- Engage partners and continue to provide factual information about vaccines to the Somali community.
- Continue to learn and engage with the Somali community.

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Figure 2. Summary of MMR Survey for Health Care Providers

Reporting Back to Health Care Providers: MMR Survey

The Minnesota Department of Health (MDH) saw a significant increase in measles, mumps, and rubella (MMR) vaccination among the Minnesota Somali community during the 2017 measles outbreak. Following the outbreak, MDH Somali outreach staff conducted a telephone survey with 300 Minnesotan Somali families who had previously delayed MMR vaccination. All families lived in the seven county metro area. From these families, 380 children got their first dose of MMR vaccine during the outbreak. We wanted to learn more about why families decided to vaccinate their children, where they got information about MMR vaccine, and how their children are doing after vaccination.

The design of the project included both quantitative and qualitative methods. Results below are descriptive and further analysis is currently being pursued. Surveys were completed in the Somali language, and translated results have been shared back to the survey participants via mail and text message.

Most families got the MMR vaccine because they feared measles disease.

Fear of measles	95%
School or child care requirement	9%
Child now old enough	5%
Doctor recommendation	4%
Other	5%
Unknown	4%

Health care providers were top source for MMR vaccine information.

- Knowing the community's strong oral tradition is influential, we wanted to know who or what influenced participants to get their child vaccinated.

Health care provider	65.7%
School or child care	21.7%
TV	17.7%
Family	9.3%
Friends	7.3%
Other	24.1%

Respondents could provide more than one answer. "Other" includes radio, MDH outreach, social media, flyer, work, community, Imam, mosque and unknown.

The MMR vaccine was well tolerated.

- Respondents perceived routine side effects such as fever and rash to be present. Families also described pain at injection site and crying. These are expected side effects.
- Perceived changes in speech/behavior were reported by a few respondents. MDH followed up on all these concerns. For those we were able to reach, the concerns around speech and behavior had gone away or were present before the child was vaccinated.

No concerns after MMR	80%
Fever	15%
Pain at injection site	3%
Behavior concerns	3%
Rash	2%
Pain/swelling	1%
Speech issues/concerns	1%

Reporting Back to Health Care Providers: MMR Survey (Page 2)

When getting their MMR most families had positive clinic experiences.

"Since MMR scared me, I was glad to get a better understanding and reassurance from my child's doctor."

"My doctor explained about some of the side effects that could occur such as fever, rash, or pain. He said if they experience any of these, I can give him a call. The doctor helped to reduce my anxiety about MMR."

"My doctor is very welcoming doctor who takes time with me and asks me more about my children."

92% of families had an overall good clinic experience.

- They appreciated having more information about the MMR vaccine and the diseases it prevents.

"When I asked my doctor to explain to me MMR, he was very rude and he told me if you refuse to give MMR then you have to sign a form."

"Bad the hospital treat me and my children very bad even when my child got high fever from the MMR vaccine they gave to him... they told me to stay home, even though my child had fever... they did not return my calls."

"The doctor and nurses did not listen to me. They think the community is failing to vaccinate their children and that we bring disease to the state."

8% of families had some bad clinic experiences.

- They reported that they felt judged for delaying vaccination or didn't receive enough information about MMR and what to expect.

95% of families felt that vaccinating their child during the outbreak was a good decision. However, more than half of those families would delay vaccination for future children. This suggests that when parents perceive a lack of immediate danger from the disease, they will still choose to delay vaccination.

What you can do:

- Take time to explain to parents what to expect after vaccination (i.e., mild fever, pain at injection site) and what they should do if they have concerns (i.e., give pain medicine, call clinic).
- Use interpreters to help provide detailed information.
- Approach vaccine conversations with empathy. Listen to parents' concerns and avoid judgement when answering questions.
- Share information about this survey with families. Let them know that children vaccinated during the 2017 measles outbreak generally did well after vaccination and did not have serious side effects.
- Talk about measles outbreaks that are occurring around the world (including Europe, Africa, and Asia). It is possible for measles to come back to Minnesota, and vaccination is the best way to protect children from measles.
- Recommend MMR vaccine at every visit, even if the family previously refused vaccination.
- Build trust with families by continuing the conversation, taking time to answer questions, and validating their concerns.

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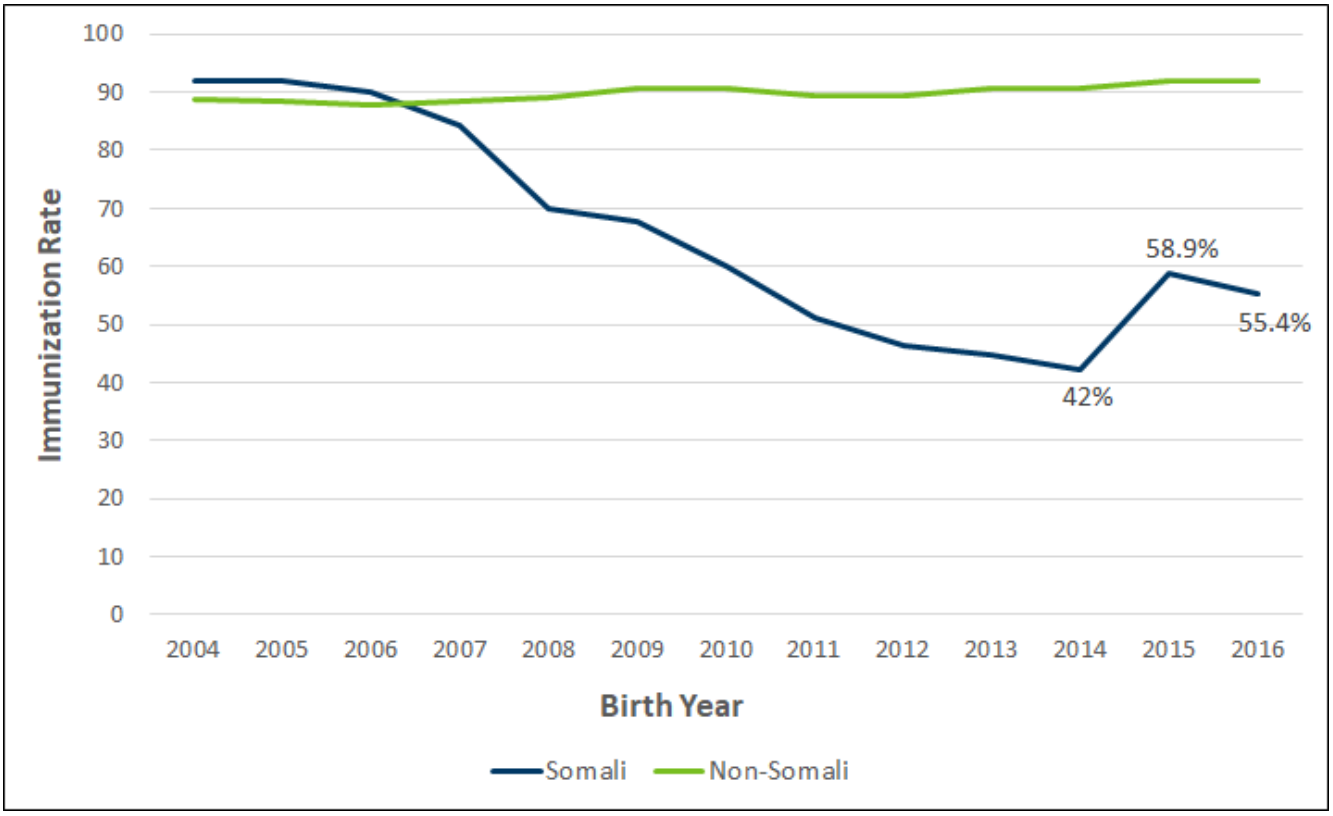
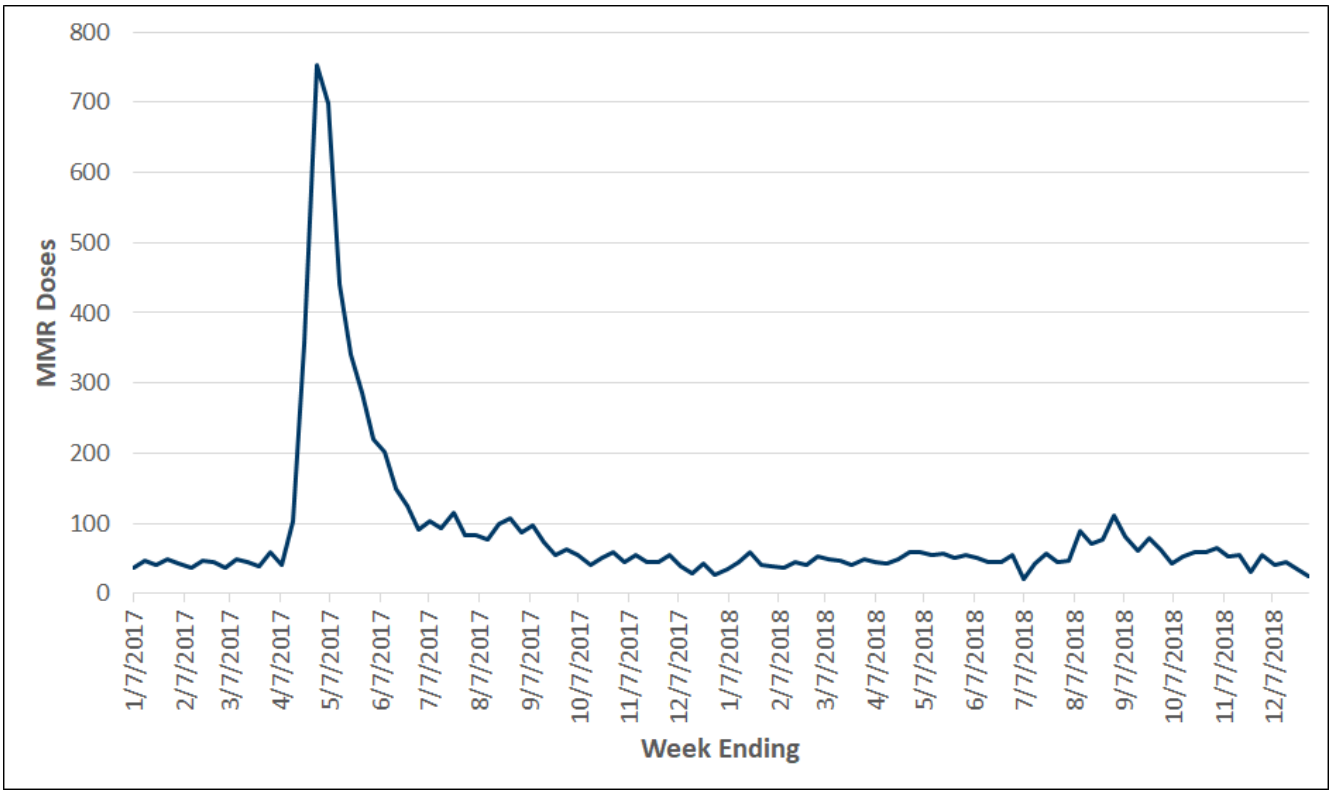
New data on MMR coverage evaluated in February 2019 showed that MMR immunization coverage at 24 months for Somali children while increasing after the outbreak, has now dropped to 55.4% (still above the outbreak baseline of 41.7 percent) (Figure 3).

Figure 3. Comparison of MMR Rates at 24 Months in Children of Somali Descent Versus Non-Somali, Birth Years 2004-2016, Minnesota



We are encouraged to see improved vaccination coverage as result of outbreak. However, a review of overall MMR vaccine administration continues to indicate that vaccination has returned to pre-outbreak levels. While the vaccination rate increase during the outbreak helped to get more children up-to-date with their MMR vaccination, we have a great deal more work to do in this area.

Figure 4. MMR Doses Administered by Week Among Children of Somali Descent, 2017, Minnesota



We have now built trust and credibility in the Somali community for vaccines and MDH. We are committed to protecting the community from vaccine-preventable disease and conduct regular outreach. MDH still draws skepticism as a government agency, but we have forged trusted relationships within the community. As the threat of measles grows smaller in the community's perspective, the need for information related to all childhood, adolescent and adult vaccines has grown. Somali parents are also highly interested in learning more about child development and autism. These concerns still remain even after the 2017 outbreak and contribute to vaccination coverage that is too low to protect the community from another measles outbreak in the future.

Account Expenditures and Balance

Response account expenditures in 2019.

Expense Description	Amount
Aid to Sovereign Entity	
Mille Lacs Band of Ojibwe	64,935
White Earth Band of Chippewa	25,250
Other Operating Costs – Dept. of Health	462
Annual Total	**$90,647**

Source: Minnesota Department of Health, Finance (December 2019)

Response account uses for the three disease outbreaks by expenditure category since 2017.

Expenditure Category	Measles	Syphilis	Tuberculosis	Total Amount
Aid to County	0	9,436	0	9,436
Aid to Sovereign Entity	0	110,725	0	110,725
Communications	762	0	0	762
Compensation	54,434	46,826	120,398	221,658
Other Operating	0	2,996	300	3,296
Printing & Advertising	0	8,632	0	8,632
Information Technology	0	2,121	168	2,290
Supplies	9,169	11,199	0	20,368
Travel	0	383	392	775
Grand Total	**$64,366**	**$192,317**	**$121,258**	**$377,941**

Source: Minnesota Department of Health, Finance (December 2019)

Response account approved uses, returned funds, and available balance.

Beginning Balance (July 1, 2017)	**$5,000,000**
Approved LAC Order for Measles, Syphilis, and Tuberculosis Outbreaks (July 2017)	(613,583)
Returned Tuberculosis money per CDC Supplement (December 2017)	10,750
Returned Unspent Funds (December 2018)	185,398
Returned Unspent Funds (November 2019)	39,494
Available Balance	**$4,622,059**

Note: Legislative Advisory Commission (LAC)
Source: Minnesota Department of Health, Finance (December 2019)