

Childhood Immunizations

Trends in St. Louis County, MN

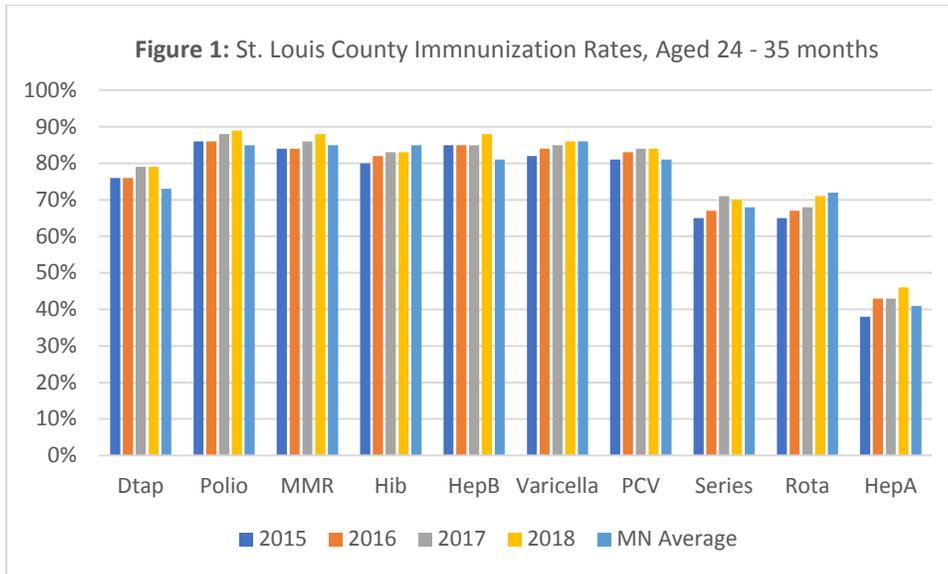


Table 1: % of St. Louis Kindergartners Vaccinated, 2017 - 2018

	% Vaccinated	% Partially vaccinated or no doses**	% Non-medical exemption	% Medical exemption
DTaP	91.93%	4.50%	3.29%	0.29%
Polio	90.72%	5.48%	3.34%	0.46%
MMR	92.10%	4.21%	3.40%	0.29%
Hep B	93.60%	3.23%	2.88%	0.29%
Varicella	89.80%	5.94%	3.34%	0.19%

** "% Partially vaccinated or no doses" includes students who are in the process of completing a vaccine series, have not been vaccinated and do not have an exemption on file, or who did not submit vaccine records to their school health staff

Measles outbreaks are occurring across the country. From January 1 to November 7, 2019, there have been 1,261 cases in 31 states. While Minnesota has yet to see any confirmed measles cases this year, a 2017 outbreak occurred in Hennepin County in the Twin Cities resulting in 79 confirmed cases.



While the total number of cases in Minnesota’s 2017 outbreak may not seem great, the cost to the state of Minnesota was \$2.3 million and it took 5 months to contain. When looking at cost savings, the measles, mumps, and rubella (MMR) vaccine costs just over \$75 a dose. The majority of insurance companies will cover this cost and the Minnesota Vaccines For Children program can help to cover the cost for those whose insurance will not cover it.

In 2013, the Institute of Medicine reported that a trend of delaying vaccination or exempting from them entirely has contributed to increases in vaccine-preventable diseases (VPDs) in the United States. The resurgence of the measles virus is a prime example. The recommended immunization schedule is designed to protect babies early in life, when they are most vulnerable. When parents choose not to vaccinate or to follow a delayed schedule, children are left unprotected against vaccine preventable diseases, like measles and whooping cough. As shown in Figure 1, in 2018, the percentage of children aged 24-35 months that were up to date with all childhood immunizations (series completion) was about 70%. This means that 30% of St. Louis County’s children aged 24 – 35 months are either not getting vaccinated, using an alternate schedule or are behind on immunizations. According to the CDC, to prevent a measles outbreak, a threshold of at least 93% - 95% of the population needs to be vaccinated in order to achieve herd immunity. As seen in Figure 1, the percentage of children aged 24 – 35 months that are up to date on their MMR vaccine is about 85%. This is an issue when considering how many children 24 -35 months of age are in childcare settings outside of the home. The good news is that while rates for kindergarten aged children are not quite at the CDC’s 93% - 95% threshold, they are catching up, which can be seen in Table 1. By the time St. Louis County children reach kindergarten, about 92% are fully vaccinated with two doses of the MMR vaccine. With continued educational outreach from providers and public health professionals, we hope parents will see the value and importance of immunizing their child.

Notes

Information for immunization rates were pulled from the Minnesota Immunization Information Connection (MIIC) registry, which is run by the Minnesota Department of Health. Data was gathered between June 18, 2019 and September 10, 2019. Studies referenced in the text are noted below. Any comments or questions can be sent to Katie Albert, albertk@stlouiscountymn.gov

Flannery, B., Reynolds, S. B., Blanton, L., Santibanez, T. A., O’Halloran, A., Lu, P.-J., ... Fry, A. M. (2017). Influenza Vaccine Effectiveness Against Pediatric Deaths: 2010–2014. *Pediatrics*, 139(5). doi: 10.1542/peds.2016-4244

Institute of Medicine. 2013. *The Childhood Immunization Schedule and Safety: Stakeholder Concerns, Scientific Evidence, and Future Studies*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/13563>

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