

# The Impact of Vaccination on Grand Rapids Public Schools' Students

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## Summary of the Flu Vaccine

### What is it?

- A vaccine to prevent the seasonal flu.
- The vaccine injects a small amount of influenza viruses for the body to create antibodies against. It takes about 2 weeks for these antibodies, or immunity, to form.
- A “good match” is when the antibodies in the vaccine are similar to the virus that is circulating during the current flu season

### When should a child receive this vaccine?

- Anyone over 6 months old should receive the flu vaccine yearly.
- This vaccine is required yearly because our body's immunity to the virus declines over time as well as the strain of virus can change from year to year.

### How effective is it?

- The effectiveness of this vaccine differs every year, yet in 2017-2018, the vaccine prevented an estimated 6.2 million cases of influenza.

### Side Effects:

- Soreness, redness at the sight
- Headache
- Fever
- Fatigue
- Muscle aches
- Nausea

### Does my school require this?

- This can vary from institution to institution. The attached link is one resource to see if your child's school or daycare requires this.
- <https://www.cdc.gov/vaccines/imz-managers/laws/state-reqs.html>
- <https://www.cdc.gov/flu/prevent/keyfacts.htm>

## Summary of MMR Vaccine

### What is it?

- A vaccine to prevent measles, mumps, and rubella.
- It is a weakened live virus vaccine, meaning that when it is injected, the virus causes a harmless infection that the body fights off to create immunity (a defense system) against the virus.
- There are typically little to no side effects.

### When should a child receive this vaccine?

- The MMR vaccine includes 2 doses. The first dose should be received between 12-15 months of age. The second should be between 4-6 years of age.

### How effective is it?

- One dose of MMR is 93% effective against measles, 78% effective against mumps, and 97% effective against rubella.
- Two doses of MMR are 97% effective against measles and 88% effective against mumps.

### Does my school require this?

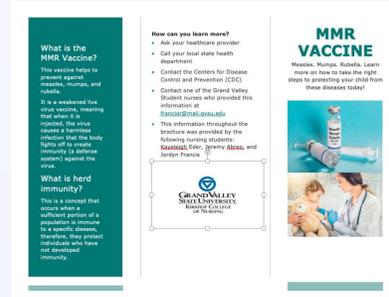
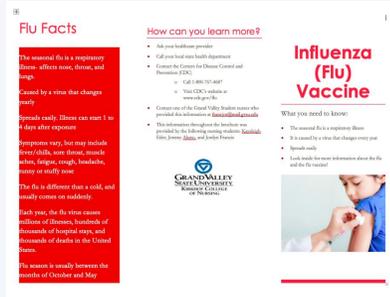
- All 50 states including the District of Columbia have state laws requiring this vaccination before entry into childcare or public schools. There are no federal laws requiring this vaccine.

## Abstract

The focus of our project was to analyze the amount of children vaccinated in Grand Rapids Public Schools. After determining the percentage of vaccinated children, we planned to implement an intervention to promote vaccination education to parents in the Grand Rapids area as well as increase awareness of the detrimental complications of refusing vaccinations.

As one of the focuses of our project, we decided to create a set of pamphlets. We focused on two main vaccines: the MMR vaccine and the Influenza Vaccine. After we gathered information about the two different vaccines, we compiled this information into an organized manner on two separate brochures. Being that our population focused on the Grand Rapids Public Schools, we recognized that there

was a large population of spanish speaking families. Since this was the case, we decided to translate both the Influenza Vaccine brochure and the MMR vaccine brochure into Spanish. We reached out to a medical employee who works at MED-1 Occupational Health Services, in which her first language was Spanish. This helped us to ensure that our translation pamphlets were both accurate and presented in a manner that would make sense to this specific population.



## Original Goal:

We would have interviewed the school principals and the director of health services for GRPS and analyzed their concerns regarding vaccination rates among their student population. With this information, we would have created and hosted an intervention that would address the disparities in vaccination rates and educate parents on the benefits of vaccinating their children. Also, due to the demographics of GRPS information would be provided in both English and Spanish. . However, due to unforeseen circumstances related to COVID-19 and unexpected closing of schools, we were unable to conduct any interviews with the key informants, and therefore unable to host any events that would address these disparities .



<https://www.inquirer.com/philly/health/kids-families/blue-cross-study-finds-childhood-vaccination-rates-up-in-philly-20180118.html>

## Vaccination Rates

### United States (2018):

- % of Children ages 19-35 months receiving MMR Vaccine: 91.5%
- % of Children ages 6 months -17 years receiving Influenza Vaccine in past 12 months: 50. 4%
  - Center for Disease Control and Prevention. (2017). Faststats - immunization. Retrieved from <https://www.cdc.gov/nchs/fastats/immunize.htm>

### Michigan (2017):

- % of Children ages 19-35 months receiving MMR Vaccine: 92.2%
- % of Children ages 6 months and older receiving Influenza Vaccine in past 12 months: 39.5%
  - Center for Disease Control and Prevention. (2017). Archived interactive reports by survey year (1995-2017). Retrieved from <https://www.cdc.gov/vaccines/imz-managers/coverage/childvaxview/data-reports/index.html>

### Kent County (2017):

- % Completely Vaccinated: 93%
- % Partially Vaccinated: 4.5%
- % with waiver exemption from vaccination: 2.4%
  - Mack, J. ( 2019). Look up vaccination rates at any Michigan school or daycare. Retrieved from <https://www.mlive.com/news/2019/02/look-up-vaccination-rates-at-any-michigan-school-or-day-care.html>

### Martin Luther King Leadership Academy (2017):

- % Completely Vaccinated: 96.8%
- % Partially Vaccinated: 0%
- % with waiver exemption from vaccination: 3.2%
  - Mack, J. ( 2019). Look up vaccination rates at any Michigan school or daycare. Retrieved from <https://www.mlive.com/news/2019/02/look-up-vaccination-rates-at-any-michigan-school-or-day-care.html>

### Burton Elementary School (2017):

- % Completely Vaccinated: 98.1%
- % Partially Vaccinated: 1.9%
- % with waiver exemption from vaccination: 0%
  - Mack, J. ( 2019). Look up vaccination rates at any Michigan school or daycare. Retrieved from <https://www.mlive.com/news/2019/02/look-up-vaccination-rates-at-any-michigan-school-or-day-care.html>

### Cesar E. Chavez Elementary School (2017):

- % Completely Vaccinated: 96.8%
- % Partially Vaccinated: 2.4%
- % with waiver exemption from vaccination: 0.8%
  - Mack, J. ( 2019). Look up vaccination rates at any Michigan school or daycare. Retrieved from <https://www.mlive.com/news/2019/02/look-up-vaccination-rates-at-any-michigan-school-or-day-care.html>

## Demographic Data of Grand Rapids Public Schools

- 59% White
- 18% Hispanic
- 17% Black
- 1% Asian

<https://censusreporter.org/profiles/97000US2618440-grand-rapids-public-schools-mi/>