

1. **Mark your confusion.**
2. **Show evidence of a close reading.**
3. **Write a 1+ page reflection.**

The Anti-Vaxxers' Impact

Source: TheWeek.com, March 3, 2019

After being officially eliminated in the U.S. in 2000, measles is making a comeback. Officials blame low vaccination rates. Here's everything you need to know:

Who has been affected?

This year there have been six confirmed measles outbreaks in ten states, including New York, Texas, and Washington state. At least 159 people have been infected, mostly young children. All of the outbreaks have occurred in communities with low vaccination rates. Washington is one of 17 states that allows vaccine exemptions for personal philosophical reasons, and nearly one out of four kindergartners weren't vaccinated in Clark County, the epicenter of a measles outbreak that has prompted Washington's governor to declare a state of emergency. About 90 to 95 percent of a population needs to be vaccinated against measles in order to keep the disease from spreading. "Measles is exquisitely contagious," says Dr. Alan Melnick, Clark County's public health director. "If you have a population that is unvaccinated, it's like throwing a match into a can of gasoline."

Why are high vaccination rates important?

Vaccines create "herd immunity." If enough people have their shots, diseases can't spread as easily, and that protects people who can't be vaccinated themselves — including very young babies, people with vaccine allergies, and those with compromised immune systems. Herd immunity is especially important for measles, which is spread through the air by droplets from an infected person's nose or mouth. One person can infect 12 to 18 other people in an unvaccinated population, making it one of the most contagious diseases known to science. While the most common symptoms include a high fever, runny nose, and a painful, spotty rash, many patients suffer serious complications. One in 10 children with measles suffers ear infections, while one in 20 develops pneumonia. Encephalitis, swelling of the brain that can cause permanent damage, affects 1 in 1,000. Before the measles vaccine was introduced in 1963, it's estimated that four million people in the U.S. were infected every year, with 48,000 hospitalizations and 500 deaths. Vaccines also prevent other childhood diseases, such as mumps, whooping cough, and rubella, all of which can be dangerous. During the 1964–65 rubella epidemic, 11,000 babies exposed to the virus in utero were born deaf, 3,500 were born blind, and 1,800 were developmentally disabled.

Why the objection to vaccines?

No major religion specifically prohibits vaccination, but some deeply religious people view it as unnatural or interfering with God's will. The ranks of "anti-vaxxers" also include secular people on both the right and left who are deeply suspicious of government, science, and big pharmaceutical corporations. Most parents who reject some or all vaccines, recent research indicates, are white, college-educated, and relatively affluent. Their main concern is vaccine safety.

Are their fears legitimate?

There is overwhelming scientific evidence that vaccines are safe and effective. A small number of children develop side effects such as a mild rash or soreness; stronger reactions are extremely rare. The modern anti-vaccination movement began in the late 1990s, with a since-debunked paper published in *The Lancet* medical journal by physician Andrew Wakefield that claimed to show a link between the Measles, Mumps, and Rubella (MMR) vaccine and autism in a group of 12 children. Wakefield's paper was retracted after it was found that he had falsified data, and he was stripped of his medical license.

Since then, at least a dozen large-scale studies have found no link between vaccines and autism. But the idea is still promoted by celebrity anti-vaccine activists such as Jenny McCarthy and Robert F. Kennedy Jr. Darla Shine, the wife of President Trump's communications director, recently made a bizarre claim on Twitter that getting measles later equips you to fight cancer. "Bring back our #ChildhoodDiseases," she wrote. "They keep you healthy."

How common are such beliefs?

Only 2 percent of kids nationwide go unvaccinated for nonmedical reasons. But a much larger number of parents delay or skip some vaccines because of their fears about safety. A 2011 survey of parents with young children found that one in 10 used an alternative vaccine schedule to the one recommended by doctors. Some parents falsely believe too many vaccinations can "overload" a child's immune system, even though kids are exposed to millions of pathogens every day. The World Health Organization has labeled "vaccine hesitancy" one of the top 10 global health threats for 2019.

What's being done?

Eleven states have passed laws tightening requirements for vaccine exemptions. California passed one of the strictest laws in the country in 2015, abolishing all nonmedical exemptions, after a measles outbreak that began in Disneyland sickened dozens of unvaccinated children. In California, the vaccination rate has increased from 93 to 95 percent since the state's law passed. Public health officials say that more outreach and public education is needed to assuage parents' fears. "We do a disservice if we sort of denigrate or shout at families who choose not to vaccinate," Dr. Matthew F. Daley, a pediatrician who researches vaccination issues recently told *The New York Times*. "They don't want to harm their kid. We need to meet them where they're at."

Vaccines and the Internet

Social media has become one of the main sources of vaccine misinformation. A study in the United Kingdom by the Royal Society for Public Health found that half of all parents with young children in the country were exposed to misleading information about vaccines on social media. A recent investigation in *The Guardian* found that the top 12 vaccine-related Facebook groups were all anti-vaccination; eight of the top 12 pages returned by Facebook's search engine contained anti-vaccine propaganda. YouTube's autofill suggestions and recommended videos also routinely steer users to anti-vaccination content. Researchers also observed Russian bot and troll accounts spreading virulently pro- and anti-vaccination content as part of their effort to sow political discord in the United States during the 2016 presidential election. "The social platforms have a responsibility to start investigating how this content is spreading and the impact these narratives are having on targeted audiences," says Renée DiResta, who researches online disinformation with the organization Data for Democracy.

Possible Response Questions:

- What are your thoughts about mandatory vaccinations?
- Pick a passage from the article and respond to it.
- Discuss a "move" made by the writer in this piece that you think is good/interesting. Explain.