Is social media anti-vax propaganda causing a drop in the rates of MMR vaccines being given?: Systematic Literature Review

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Vaccines are the leading cause in disease prevention and decreases the rates of viral outbreaks

The MMR vaccine has caused many controversial issues to arise. An anti-vaxxer is known to be a parent of a child who does not wish to have their child receive vaccinations or simply a person who does not agree that vaccinations should be given. This study will investigate the impact of social media propaganda in causing a drop in the number of children receiving MMR vaccinations and the effects of this on the community. The findings of this study will help discover how convincing social media can be to affect a person’s decision on a certain issue and also whether or not this anti-vax movement was one of the leading causes of the measles outbreak in 2019.

The MMR Vaccine

The MMR vaccine provides its recipients with immunity and protects them from three different diseases: measles (rubella), mumps (parotitis), and rubella (German measles).

Proven Facts About the MMR Vaccine:

- It is given in 2 doses; the first dose at 12 through 15 months of age and the second dose at 4 through 6 years of age.
- It is an attenuated live vaccine (weakened, harmless version of these three diseases) and is injected into the body causing the immune system to fight off the infection.
- It does not cause Autism Spectrum Disorder (Autism spectrum disorder is a genetic disease that affects individuals who possess this mutated gene).
- It can create herd immunity for immunocompromised children who can not receive it.

How the Anti-Vax Movement Started

The MMR vaccine was first linked to the cause of Autism Spectrum Disorder (ASD) in 1998 when Andrew Wakefield, a physician, published a study stating this connection. After the release of Wakefield et al. study revealing information about this correlation, parents believed that there were worse side effects of the vaccine itself than the side effects of the three viruses. *The research done in this particular study has been proven to be fraudulent and incorrect*

- Coincidently, there was a correlation among the two, vaccine and ASD, because the MMR vaccine is normally first given at 12-15 months and ASD is diagnosed at the same time because of the occurrence of symptoms throughout a child’s developmental period.
- Online news media coverage and celebrity endorsement of the MMR vaccine-autism link
- Television news stories, social media, papers, news, magazines, and highly publicized articles that discussed the increase in autism diagnoses from 1990 to 2010 and blamed parents for being responsible for their children having ASD.

Social Media Platforms

There are over 800 antivaccination websites available on the internet that claim:

- “encourage vaccine refusal or emphasizing the dangers of vaccines”
- “vaccines cause idiopathic illness”
- “vaccines erode immunity”
- “immunity is temporary/ineffective”
- “adverse effects are underreported”
- “violation of civil liberties”
- uncovered hidden truths behind healthcare and anti-vaxxers are persuading the public to believe that vaccines are “completely ineffective in preventing infectious disease”

These are all unsupported by peer-reviewed scientific literature

Measles Outbreak (2019)

Since 1992 and the creation of the MMR vaccination, the measles had been eradicated until the outbreak in the United States with 1,249 cases reported on 2019.

*Misinformation from anti-vax websites are highly influential*
- “the percentage of unvaccinated children has quadrupled since 2001”
- the rise of anti-vaccination movements is one of the major contributing factors to viral outbreak clusters
- constant high risk of measles outbreaks is due to “existence of under vaccinated communities”
- decreased vaccination rates in these close-knit communities are due to the misinformation regarding vaccines and the active anti-vaccination movement.

Change

- Health care workers, pediatric physicians, public health authorities, religious leaders, local health care centers and advocacy groups need to help educate local citizens should collaborate with anti-vaxxers and under vaccinated communities to discuss the importance for receiving vaccines to prevent outbreaks from occurring and decreasing the transmission rate.
- Under vaccinated communities in New York City and New York State were administered about 60,000 MMR vaccines.
- Correct education needs to be done to fix wandering thoughts about the false information about vaccinations for a better understanding of the consequences of not receiving the MMR vaccine.

Vaccines have saved many lives and anti-vax propaganda needs to be confronted to stop the spread of false information in order to create a healthier, safer environment for children and families around the world.

References furnished upon request.