

The Positive Correlation Between the Increase in Vaccine Refusals and Outbreaks of Vaccine-Preventable Diseases

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The focus of this literature review is to identify the relationship between vaccine refusals and outbreaks of measles, mumps, and pertussis. Before the introduction of the associated vaccines, there were about 4 million reported cases of measles, 100 cases of mumps per 100,000 people, and as many as 200,000 children were infected with pertussis in the United States. After the introduction of the vaccines, these three diseases reached near eradication in the United States however, they never became fully eradicated due to an increase in outbreaks in recent years. The reasons to refuse vaccination include: 1) religion, 2) personal beliefs, 3) safety concerns, and 4) mistrust. Previous studies evaluating the effect social media has on vaccine refusals found that individuals believed the MMR vaccine causes autism and that vaccines have toxins. In addition, individuals were more likely to believe videos that opposed vaccinations versus those that advocated for their use. Although there is evidence showing that vaccine refusals have influenced the outbreaks of measles and pertussis from 2017 to 2019, more studies are needed to evaluate the relationship between the outbreaks of mumps and unvaccinated individuals. In addition, the spread of misinformation through certain social media outlets should be analyzed to determine their effect on disease outbreaks. In sum, this review finds that as vaccine refusals rates continue to increase, the number of outbreaks will also increase. Therefore, it has become increasingly important to vaccinate to reduce the spread of infectious diseases and protect individuals from detrimental risks.