



## Short Communication

# Beneficial or an unknown risk: Immunization hesitancy in Indian population

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### ABSTRACT

The most victorious intervention in field of Public Health is immunization. It prevents 2-3 million deaths every year from diseases like diphtheria, tetanus, pertussis, influenza, measles and currently to overcome the novel corona virus infection an effective vaccine is the most anticipated resolution. Despite the advancements and innovations in clinical research and healthcare, vaccine hesitancy is a threat globally. Social media has provided unmatched capacity for people to communicate but has also been a major tool for rapid spread of misconceptions and disingenuous information damaging to public health. This article aims to give an overview of vaccine hesitancy of various infectious diseases, people's perception towards it, how social media has facilitated this movement and how to eliminate the misconception.

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## 1. Introduction

The eradication of smallpox, the nearly global eradication of polio, and a substantial decrease within the morbidity and mortality related to other infectious diseases has been made possible with the evolution of vaccines.<sup>1</sup> Since 2013, the World Economic Forum has listed digital misinformation among the most threats to our society. WHO defines vaccine hesitancy as a “delay in acceptance or refusal of vaccines despite availability of vaccination services.” The effect has been around for as long as vaccination. But the advent of social media has offered an unprecedented opportunity to amplify and spread anti vaccination messages and to connect vaccine hesitant people with each other. Most of the times public opinion is formed by the content shared on social media platform. It's difficult to understand the extent to which exposure to such messages affects people's slant. It's probable that the posts mostly bounce around online echo chambers. But even a little effect is meaningful.<sup>2</sup> A wide range of drivers lie behind vaccine hesitancy including conspiracy theories, general distrust,

belief in alternatives, or concerns about safety. Most of the individuals do not consider the credibility of the information shared on social media. Truth is lost in noise. It becomes difficult to acknowledge whether information is a longtime fact or not. The adopted language, the frequency of use of social media, the kind of content that is generated, and their emotional appeal, could all constitute factors that determine the success of the anti-vaccination movement online.

### 1.1. Misconceptions of MMR vaccine

“On Aug 19, 2019, British Prime Minister Boris Johnson outlined plans for a summit of social media firms to debate the way to promote accurate information about vaccination. The announcement accompanied the news that WHO not considers the United kingdom to possess eliminated measles. Coverage of the second dose of the measles–mumps– rubella (MMR) vaccine within the country has fallen to 87% under the 95% required for herd immunity. “I am afraid people have just been taking note of that superstitious mumbo-jumbo on the social media, all that antivax stuff, and thinking that the MMR vaccine is also a futile idea”, commented Johnson on a visit to a

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hospital in southwest England.” The foremost popular anti-vaccine theory is that the mumps-measles-rubella (MMR) vaccine causes autism.<sup>3</sup> Conspiracy theories have become endemic among anti-vaccination groups. These sentiments have been compounded in recent years by decreased trust in the institutions that manufacture or distribute vaccines.

### 1.2. Covid19 vaccine and social media

Alongside the covid-19 pandemic India is facing vaccine hesitancy and infodemic. The development of a COVID-19 vaccine puts forward the most awaited solution for facing this pandemic but with this various misbeliefs have also been born.<sup>4</sup> The attitude towards vaccination is affected by several factors linked to confidence (trust in healthcare professionals, vaccines, and their effectiveness), convenience (availability of and accessibility to vaccines and healthcare services) and complacency (low awareness of the risks of vaccine-preventable diseases and the importance of vaccines). COVID-19 vaccine acceptance may vary according to the time varying morbidity and mortality values of the ongoing pandemic. Concerns about the COVID-19 vaccine stems from the fact that a lot is unknown about a new vaccine, its efficiency, potential side effects especially within the future.<sup>5</sup> Social media dependence during lockdown has been associated with vaccine hesitancy of covid-19. Delays or refusals in covid-19 vaccine would prevent communities from reaching the herd immunity and thus not breaking the chain of transmission and also the world would still suffer.

### 1.3. How to address vaccine hesitancy

Knowledge of vaccines is one among the factors that affect decision-making process of the general public and consequently direct communication with the pillars of the community i.e healthcare workers is one amongst the foremost strategies which will contribute to deal with vaccine hesitancy.<sup>6</sup>

Much of the hesitancy is due to the fact that there is a lack of trust in health care systems, pharmaceutical companies and in our government. Citizens must fulfill their own responsibilities and keep a faith in their public health system. It is imperative for social media agencies to identify and flag potentially harmful and misleading information, and consider active promotion of content from public health agencies. Medical providers also play a crucial role in influencing parent’s decision to vaccinate their children. There should be strategies to spread vaccination culture among communities to create vaccination programmes more sustainable and understandable removing the uncertainty against it.

## 2. Conclusion

Undoubtedly vaccines are a significant cornerstone in global world when it involves elimination of infectious diseases. However, doubts about vaccines efficacy and possibility of harm caused by them have existed since they were introduced. Everyone wants the most effective solution for themselves and as a result they seek information from their peers, family and also via social media leading to misconceptions and uncertainty. In order to circumvent this, people must follow the foremost trusted source i.e two-way communication with health care professionals. During this era of the many new infectious diseases unquestionably vaccines are need of the hour, so we must protect ourselves from erroneous and ambiguous information.

## 3. Source of Funding

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## 4. Conflict of Interest

None.

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