The Importance of Childhood Vaccinations in an Era of Misinformation

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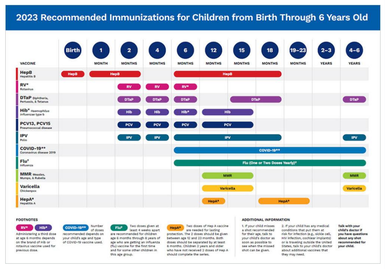
Introduction

In recent medical history, vaccinations have facilitated the reduction/eradication of many transmissible diseases (Olusanya et al., 2021). Recently, a growing reluctance of parents to vaccinate their children is a pertinent threat to public health and safety (Garett et al., 2021).



Non-compliance

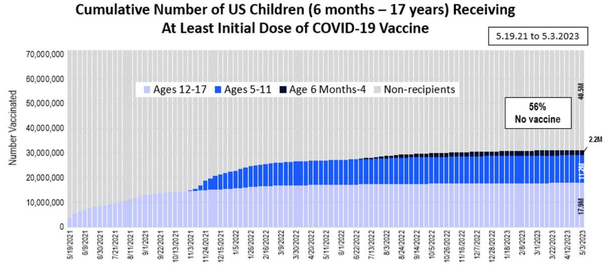
Non-compliance to routine childhood immunizations increases the likelihood of an outbreak of preventable diseases (Olusanya et al., 2021). This non-compliance is bred by vaccine misinformation which is being spread by many news channels, websites, and social media sites. Nationally, the number of non-medical vaccination exemptions is at 2.5% and it is steadily increasing (Olusanya et al., 2021). While 45 states and Washington D.C. only grant religious vaccine exemptions, 15 states permit philosophical vaccination exemptions based on an individual's personal beliefs (Olusanya et al., 2021). Scientific literature continues to debunk common myths about the "dangers" of childhood vaccines, however not everyone can access, read, and comprehend these documents. It is necessary to educate the masses on the importance of getting vaccinated and vaccinating their children.

Misinformation

Disingenuous information regarding vaccines is harmful, but very common on the internet. Out of all the U.S. citizens with access to the internet, 55% disclosed that the information they accessed online influenced their health behaviors (Garett et al., 2021). When searching online for "vaccinations" and "immunizations", researchers noted that 43% of the websites that populated were anti-vaccination websites (Garett et al., 2021). These anti-vaccination websites instill fear in their readers by questioning the safety and effectiveness of vaccines, implying that vaccines promote the restriction of freedom, and offering "safer" alternatives to vaccinations (Garett et al., 2021).
In a study examining the HPV vaccine, social media was more impactful to the variance in vaccine coverage as compared to socioeconomic factors and less people were vaccinated in states with higher exposure to vaccine misinformation, conspiracy theories, and safety concerns (Garett et al., 2021).

COVID-19

Although in June of 2022 the COVID-19 vaccination was approved for children 6 months old to 11 years old, some parents still chose not to vaccinate their children. As shown in the graph below, as of May 2023, 56% of children in the US have not received the first dose of the vaccine. This powerful quote sums up the origin of this growing vaccination hesitancy: "the amount of misinformation online surrounding the vaccine has been labeled as a second pandemic" (Garett et al., 2021).



Home Visits

Although misinformation is a factor, the main reason for under-vaccination of children is missed doctor's appointments (Blue Cross Blue Shield, 2018). To increase the number of properly vaccinated children, we can implement home visits. Home visits consist of a medical provider visiting a patient's residence and assessing the patient's vaccination history, educating the patient and/or the patient's guardian(s) on the importance and safety of vaccines, and either providing the vaccine at the time of the visit or setting up a follow up appointment to receive the vaccine (Healthy People 2030, 2016).

Combatting Misinformation

Although it is impossible to monitor everything that is posted on the internet, it is necessary to provide factual, data-based health information that is accessible to everyone. By creating a team of dedicated scientists, physicians, and other healthcare workers to patrol the internet and correct misleading information on vaccines, I believe we can combat harmful misinformation. Social media websites can also create algorithms and implement policies that prevent users from fabricating facts about vaccines (Garett et al., 2021).

Citations

Olusanya, O. A., Bednarczyk, R. A., Davis, R. L., & Shaban-Nejad, A. (2021). Addressing parental vaccine hesitancy and other barriers to Childhood/Adolescent vaccination uptake during the coronavirus (COVID-19) pandemic. *Frontiers in Immunology*, *12*. https://doi.org/10.3389/fimmu.2021.663074
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