

# Social Determinants of Health and Immunizations

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# Social Determinants of Health and Immunizations

- Social determinants of health are conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks. Conditions (e.g., social, economic, and physical) in these various environments and settings (e.g., school, church, workplace, and neighborhood) have been referred to as “place.”

# Social Determinants of Health and Immunizations

- Vaccine preventable diseases have been responsible for a significant portion of childhood mortality in low-income countries, and have been re-emerging in medium- and high-income countries. The effectiveness of routine childhood immunization programs relies on multiple factors. Social determinants have the potential to affect immunization programs around the world, with globalization and ease of communication facilitating their effect. Exploring the types of social determinants affecting immunization efforts in various countries is of great importance to the ability of nations to address them, prevent the spread of disease and lower mortality rates. The social determinants affecting vaccination programs can vary among countries of different income levels, with some social determinants overlapping among these country groups.

- Understanding the effect of social determinants on routine immunization programs in various countries is important for the development of modalities to address them with the purpose of optimizing vaccination coverage.

# Introduction

- Multiple vaccines are currently available worldwide against infectious pathogens, with many of them designated for routine childhood immunizations.
- The successful implementation of immunization programs depends on multiple factors
- Social determinants can have a significant effect on immunization efforts around the world.
- A recent systematic review addressing the reasons for under- or non-vaccination of children from low- and middle-income countries suggested that social determinants may have a substantial impact on routine childhood vaccination

# Low Income Countries

- Low-income countries carry a high burden of vaccine-preventable diseases, a situation which is often exacerbated by inconsistent vaccine supply.
- Social determinants appear to play an important role even when vaccines and health care services are available. In this regard, one study demonstrated that the availability of healthcare and vaccination services within reachable distance did not necessarily lead to their consistent utilization by the population.
- Suggesting that individual or population determinants play a role in the success of immunization programs.

# Anti-Vaccine Movement

- Numerous sources have documented the negative effects of an anti-vaccine culture on individual and population level health.
- In the case of measles vaccine, a licensed vaccine used for several decades, unfounded speculations about a possible association with autism and autism spectrum disorder led to detectable population level decreases in measles vaccine use, thus leading to a resurgence of measles cases, hospitalizations, and measles related deaths.

# Anti-Vaccine Movement

- In the realm of new vaccine development, the sole manufacturer of a vaccine against Lyme Disease withdrew the product from the market due to class action law suits.
- Radical anti vaccine lobby have become weapons of mass distraction in trying to educate the public and legislators about the risks and benefits of vaccines

# Safety Concerns

- Parental concerns about the safety of vaccines and the impact of side effects on their children have often been cited as a factor affecting immunizations with one or more vaccines.
- A well known example was demonstrated in the last decade with regard to the presumed association of the measles mumps rubella vaccine with autism.
- Several studies suggested a link between MMR vaccine and autism, but no causation was demonstrated.

# Religious, Cultural, and Personal Beliefs

- Religion-based and cultural beliefs have been reported as barriers to vaccination programs in medium and high income countries.
- Recently licensed human papilloma virus vaccine elicited objection among certain societal groups because of personal beliefs

# Immigration

- Many immigrant groups are currently residing in middle and high income countries.
- Immigration into these countries has led to demographical changes in many of them.
- These populations, if under immunized upon immigration or thereafter, may contribute to outbreaks of vaccine preventable diseases in the host countries.

# Urban vs. Rural Place of Residence

- Differences in routine immunization patterns were reported in several high and medium income countries.
- A study in Ireland found that lack of primary vaccination was associated with living in the rural area of the country, among other risk factors.

# Financial Factors

- Despite the relative wealth of high and medium income countries, financial factors do affect vaccinations in these countries.
- In the United States, disparities in income that have affected immunization rates led to the establishment of the Vaccines for Children program.
- Federal entitlement program provides funding for recommended vaccines for children from low socioeconomic status.

# Ethical Issues

- The decision of parents in many developed countries not to immunize their children has created an ethical concern.
- Parents wish to protect their own children from potential harm.
- Avoiding vaccination can lead to inadequate immunization rates followed by increased prevalence of vaccine-preventable diseases, resulting in significant and potentially tragic consequences to the societies in which these children live.