

## Vaccination: Considerations to acceptance and refusal

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### INTRODUCTION

Vaccination is one efficient and crucial tool for preventing and controlling disease. However, with remarkably low coverage rate of common diphtheria-tetanus-pertussis or measles vaccines in low-income countries [1], there is a need to evaluate context behind acceptance and refusal of the immunization programs at a national level. Overwhelming evidence of the effectiveness of vaccination to lower morbidity and mortality associated with these preventable diseases are not satisfying enough to increase participation and encourage parents to vaccinate their children [2]. As a consequence, with declined vaccination, individuals have significantly higher risk of measles [3] and pertussis [4]. More studies claim groups of those are vulnerable to vaccine-preventable diseases (e.g., measles, poliomyelitis, rubella) including children and adults can enable epidemics [5, 6] and further cause multiple outbreaks [7, 8], even to the well-immunized neighboring communities [9]. This short review questions what factors lead to acceptance and refusal of vaccines in society.

### METHODS

For this article, a literature review was conducted, from November to December 2017, using 3 electronic databases: Science Direct, PROQUEST and Google Scholars for the years 1980-2017 with full text in

English. Only relevant works examined acceptance and refusal of vaccine were included. Focus of the study differentiated between factors that affect an individual's choice to vaccinate their own child, and factors that affect the community's perception of the safety and efficacy of vaccines.

### CULTURAL FACTORS INHIBITING IMMUNIZATION PROGRAM

Individual beliefs, religious concerns, or cultural reasons intensively define how an individual accepts or refuses immunization [10]. Jehovah's Witnesses has been instructed initially by The Watch Tower Society to refuse blood transfusions which they consider not following God's law [11]. Giving health interventions to a healthy person has been viewed as alteration to God's will, and this perception has led communities in Pakistan to refuse immunization programs [12]. Christian Scientists in the United States are opposed to immunization and all medical care since they believe diseases are manifestation of spiritual problems that can be cured by praying [13].

### POLITICAL PROPOGANDA INHIBITING IMMUNIZATION PROGRAM

Misinformation and other related-politic story spread in the community throughout the country insisted people to escape and withhold the immunization

program that initiated by the government. In 1990, a tetanus vaccination program in Cameroon failed since students feared the injection would sterilize them [14]. Political and religious leaders in 3 states in northern Nigeria advocated against immunization since they believed the oral polio vaccine (OPV) could be contaminated by birth control substances, and even the HIV virus and cancerous agents; consequently, it forced the local government to suspend the immunization program for 12 months [15]. Interestingly, this official boycott also led to refusal of OPV in northwestern Pakistan [12].

### **IMMUNIZATION IN PROGRESS**

When vaccination is considered for safety, those who faced and directly experienced to disease may change their belief to the vaccine program. A review of 6 populous faith traditions (i.g., Hinduism, Buddhism, Jainism, Judaism, Christianity, and Islam) noted that safety and personal belief organized socially around their religious community are more highly considered, rather than to objections theologically, in refusing the immunization [10]. For example, parents who members in Christian Scientists of the United States mostly did not refuse vaccination given to their children after these pupils exposed to Measles outbreaks in camp school [13]. Today, religious and cultural doctrines have changed and became “softer” and “not absolutely prohibited” [16], and later considered as a matter of personal choice [17].

Religion and culture provide significant identity and existence to a community [18]; and as the result, relationships with their religious leaders play important roles to how individuals perceived an immunization program [19]. A study in 1994, among Jehovah’s Witnesses in the US, shows that an early discussion with religious leaders and church elders about the compatibility of the vaccine with their religious beliefs can be a good strategy for immunization program [20]. Scholars also raise the importance of immunization programs clearly describing the substances contained in the vaccine that might be considered impure to the religious community. Moreover, many Muslim countries now are developing halal vaccines that assures no

prohibited ingredients contained, using science and technology with religious jurisprudence [21].

### **POTENTIAL CHALLENGES**

It is so important to understand the complex factors that play a role in why people refuse and accept vaccination. Trend changes, but the emergency to save 25 Million lives from death by vaccine-preventable diseases in 2020 also required effort to prevent further rejection [22]. It should be noted that building community trust regarding the health intervention is essential to promoting an immunization program. In addition to state and local governments, immunization campaign programs should involve parents and community leaders for participation [15]. If messaging only relies on the health workers, no doubt, the more frequent the health workers visit the community, the more resistant the parents to the campaign [23].

Parents may think the vaccine was contaminated by virus, bacteria, pork, and birth control, or perceive it has western agenda [12], or distrust to the lack efficacy of Western medicine [15] and trauma to the country for being used to drug trial [24]. In northern Nigeria, to prove that vaccine was not contaminated with HIV, as spread throughout the country, political and religious leaders from many countries were invited for meetings where they ran a test to provide evidence and help to design research ethics committee to approve or reject health intervention to the community [24].

Scholars have stressed the importance of raising basic understanding of vaccines to make parents realize the benefits and increase willingness to immunize their children [23]. However, in addition to educating individuals, it is also necessary to deeply understand the complex culture in community. While letting male health workers enter the female quarters of household will be considered as immoral in many Muslim countries [12], reaching communities can be successfully done through radio, television, music, theatre, and festivals to deliver immunization messages in understandable language [15].

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