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REPOA Brief

Public Perceptions on COVID 19 Vaccine Efficacy among Urban Dwellers in Tanzania - A Case of Temeke Municipal

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Key Messages

- People's perceptions on COVID-19 are a major determinant of the susseccs or failure of the vaccination process.
- Positive perceptions on COVID-19 vaccines increase with the age of responden
- The benefits of vaccinations apprears to outweigh the risks.
- Unmarried people are more hesitant to vaccinate than married ones.

Introduction

Since the introduction of COVID-19 vaccines, there has been an emergence of different public opinions on their efficacy worldwide (Dodd et al., 2021) and in Tanzania in particular. As of May 9, 2021, about 0.6 billion people around the world had been vaccinated with at least one dose of a COVID-19 vaccine, accounting for about 7.8% of the world's population (WHO, 2021). COVID-19 vaccination coverage in Tanzania remains significantly lower than the global and regional targets established for countries (WHO, 2022). Tanzania has managed to vaccinate 14% of the population aged 18 and above since vaccination began in July 2021.

Key challenges responsible for low coverage of COVID-19 vaccination in Tanzania include delayed introduction of COVID-19 vaccines into the country (July 2021); and limited vaccine supply received in the country (WHO, 2022). Prior to this period, lack of political will to support the COVID-19 vaccination as recommended by WHO, and limited information on COVID-19 prevalence also explain this delay. Nevertheless, understanding public perceptions of vaccine efficacy is critical to the successful implementation of the vaccination plan in Tanzania.

Methodology

A mixed approach involving qualitative and quantitative methods was adopted for the collection and analysis of data. For the quantitative approach, a social/household survey and hospital data records were used to collect up-to-date information related to vaccination during the COVID-19 pandemic. This includes the number of people vaccinated, their education levels, age, and other characteristics. Meanwhile, cross-tabulation and regression analytical techniques were applied for quantitative data.

Findings

Perceptions of people toward COVID-19 vaccination

People's perceptions of COVID-19 are observed to be one of the major determinants of the success or failure of the vaccination process. Socio economic and demographic characteristics have been among factors that explain the disparities in COVID-19 vaccination preferences.

Age Group

Information from the key informants revealed the higher vaccination uptake among women and the elderly compared to the youth as follows:

> Elders are at the forefront of vaccination, while young people do not fully understand the vaccines. This is because teenagers are as confused about vaccination, as they get different information from different sources (KII, Tandika, 16/May/2022).

Strategies to address vaccination inequity will need to identify barriers, provide targeted information, and include trust-building in the communities. Most young people assume and believes that the people most affected by COVID-19 are the elderly. This prevents them from vaccinating, despite the advice of health workers and other government officials. It is believed that adults are more likely to get very sick from COVID-19, and more likely to be hospitalized or lose their lives. However, there are weaknesses in Temeke Municipality data as they categorize age into only two groups, which makes it difficult to analyses the disparities. See table 1 below.

Table 1 Vaccination According to Age

Groups and Type of vaccine		Number of Vaccinated			
		Dose 1		Dose 2	
		Male	Female	Male	Female
Age	Age below 60	3992	4175	708	766
	Age above 60	1038	605	78	51
	Total	**5030**	**4780**	**786**	**817**

Furthermore, field findings revealed that youth were more hesitant to get vaccinated. About 16 percent of the age group between 18 and 24 accept vaccines, whereas 80 percent reject them. Also, about 36 percent of those aged between 25 and 31 agreed to getting vaccinated, while 59 percent were not ready to be vaccinated, and 6 percent were already vaccinated. Furthermore, between the ages of 32 and 38, 28 percent agreed to take get vaccinated, 57 percent rejected vaccination, and 15 percent were already vaccinated, whereas between the ages of 39 and 45, 42 percent agreed to be vaccinated, 42 percent rejected, and 16 were already vaccinated. The biggest differences are seen in people aged 60 and up, where 69 percent have already been vaccinated, 12.5 percent agree to be vaccinated, and 18.8 percent refuse.

Vaccination According to Occupation

Secondary data from Temeke hospital revealed a higher uptake of vaccination among health workers compared to other sectors. Further analysis revealed that health workers are at a higher risk of contracting COVID-19, compared to other sectors. Thus, protecting health workers is of paramount importance to WHO. The level of interaction and face-to-face contacts are the main determinants of COVID-19 transmission. The health sector has a large number of people who are already vaccinated compared to immigration, tourism, security and education. It is followed by the education sector. Education and health workers are the occupations that have a higher risk of infection compared to other occupations.The study agrees with URT (2021) that the government aims to protect all its citizens from COVID-19 by providing effective and scientifically acceptable preventive measures, such as the provision of safe, efficacious, and high-quality vaccines, and by prioritising COVID-19 vaccination to special group populations, such as healthcare workers. However, currently anyone who is 18 years of age or older can be vaccinated.

Vaccination According to Chronic Diseases & Types of Vaccines Administered

Further analysis revealed chronic diseases to be a major determinant of up-taking vaccines. One third of those who received a vaccine in Temeke District have chronic diseases. Other factors can also make people more likely to get severely ill with COVID-19, such as having certain underlying medical conditions. If someone has an underlying medical condition, he/she should continue to follow a treatment plan, unless advised differently by their healthcare provider. Therefore, the more interactive the occupation, the higher the chances of being vaccinated.

Vaccination by Sex

The study revealed that about 36 percent of males were ready vaccinate, 49 percent were not willing, and about 14 percent were already vaccinated. 22 percent of female were willing to take be vaccinated, 54 percent were not willing, and 24 percent were already vaccinated. The observation revealed that a majority of female respondents, about 54 percent, are not ready to uptake a vaccine, compared to 49.5 percent of male participants.

Vaccination by Marital Status

The findings revealed that 49 percent of married couples were not willing to be vaccinated, while 32 percent were willing, and 19 percent were already vaccinated.

This means that about 51 percent of respondents were in favour of COVID-19 vaccines. Also, among divorced people, 50 percent were willing to be vaccinated, and the same percent were not. The observations among separated couples revealed that 64 percent were not willing to be vaccinated, while 27 percent were willing. Whereas among widowed and widowers, 51 percent were already vaccinated, 37 percent were not willing to be vaccinated, and 11 percent were willing. Further analysis revealed that 68 percent of unmarried individuals were not willing to be vaccinated, 28 percent were willing, whereas only 4 percent had been vaccinated. This means that single people (unmarried) are more hesitant to be vaccinated than married, separated or divorced people.

Household Incomes and COVID 19 Vaccines

About 64 percent of the respondents with an income below sample average replied "no" to being vaccinated. Those above sample average incomes were positive with vaccination, of which 22 percent were ready for vaccination and 15 percent were already vaccinated. The study findings suggest that public health initiatives to combat vaccine hesitancy should consider these socioeconomic determinants and deliver personalised messages to people experiencing socioeconomic hardships and/or belonging to sociocultural minorities. These disparities are also common in terms of a country's level. The statistics revealed that only 16% of people in low-income countries have received a single vaccine dose compared to 80% in high-income countries. In certain lower-income countries, many of the most at-risk people in society such as healthcare workers, the elderly and those with underlying health conditions are going unprotected while young, healthy adults receive booster doses in wealthier countries (WHO, 2022). The world must act urgently to close this equity gap.

Reason for hesitation to be vaccinated

The study finds that people hesitate to get vaccinated for various reasons: 21 percent of the respondents mention lack of correct information on COVID-19 and the vaccines themselves; 3 percent of the respondents mention the effectiveness of traditional medicine; 33 percent mention that fear of vaccines; 39 percent cite a lack of knowledge about the vaccines, and 4 percent cite the vaccines' ineffectiveness to people, stating that whether or not everyone gets vaccinated, everyone is still at risk of contracting COVID-19.

Conclusions and Policy Recommendations

The study conclude that COVID-19-related concerns seemed to have a strong influence on whether to vaccinate those who were highly susceptible to infection, such as the elderly, health workers, and those with chronic diseases, were less likely to refuse vaccination, compared to other groups. Also, youth see themselves as healthier and more energetic, so consider vaccines to be useless because of their perceived harmless exposure to COVID-19.

Moreover, the study observed that limited or mixed information on the efficacy and risks of vaccines puts people in a dilemma. The analysis revealed that there are slightly significant differences between men and women, whereby both sexes support the vaccines as safe, while others oppose it. Moreover, regarding the age of respondents and COVID-19 perceptions, positive perceptions of COVID-19 vaccines increase with the age of respondents.
The study observed that occupation and working conditions play a role in COVID-19 mortality, particularly in occupations involving contact with patients or the public. However, there is also a substantial contribution from non-workplace factors. Further observation revealed that the greatest concern regarding COVID-19 vaccines, for both workers and the public, are fears regarding the vaccines' safety. These concerns result from the accelerated vaccine development, with the primary safety considerations noted being quality control, potential side effects and associated COVID-19 illness.

The study recommends that education regarding vaccination importance be decentralized to the ward and village levels as a convenient and effective means for improving attitudes toward vaccination, and it should be utilized to overcome the vaccine hesitancy hurdles in the COVID-19 context and any other possible future outbreaks and pandemics.

Furthermore, it is important to develop strategies which will help different stakeholders to work together with the Ministry of Health on any cases concerning COVID-19 vaccination and other disease outbreaks, and to take stern actions against those who mislead the public about vaccines.

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