Ministry of Health

RAPID EVIDENCE BRIEF

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Successful communication strategies used to promote COVID-19 vaccine uptake: Lessons from low-and middle-income countries

Key messages

- Context-specific themed messages could boost vaccine uptake and reduce hesitancy.
- COVID-19 vaccination message positioning is a vital communication technique especially in the sequencing of choice of words and having a single focused message.
- Trusted traditional channels of communication such as word-of-mouth can complement modern sources; harnessing social influencers (trusted community figures in an enabling environment) can make vaccine uptake "visible" to others.
- Embracing strategic communication through partnerships with non-health actors such as social champions including artists and politicians is recommended.

Introduction

The coronavirus disease 2019 (COVID-19) has become one of the most challenging pandemics globally in recent times. Fortunately, within the emergence of COVID, the global community has come together and successfully developed a vaccine. The COVID-19 vaccine is increasingly promoted and available for wider public use as one of the ways to curb both spread and adverse effects of the virus. The realization of any vaccination program solely depends on public willingness to accept the vaccination and this also applies to the COVID-19 vaccination uptake. Despite the gains in controlling infectious diseases like COVID-19 via vaccination, effective immunization suffers from challenges associated with people and communities resisting its uptake.

Globally, the COVID-19 vaccination drive has faced some challenges, including vaccine hesitancy or reluctance among the public. In Low-and Middle-Income Countries (LMICs) such as Kenya, hesitancy risks greater community transmission and could exacerbate the COVID-19 burden already being experienced. A total of 52 African countries have received or procured, doses 177,479,653 doses of COVID vaccine doses through COVAX, AVTT, and several bi-lateral arrangements. Total vaccine doses administered in the 52 African countries is 133,511,902 with completed doses series at 55,514,315 (WHO Africa COVID-19 Vaccine Dashboard, 2022).

But there are many disparities among African countries on vaccines received and vaccines administered. The ratio of all doses administered is 14 per 100 against an average of 18.3 per 100 people in Africa. In Kenya, 24.0% proportion of adults are fully vaccinated - have received at least two doses (Ministry of Health - Kenya, 2022). The country has so far received more than 24.6 million doses of vaccines and administered more than 13.7 million and WHO target is 70% (the Star Newspaper, 2022).

Objective

Identify effective public health communication strategies on COVID-19 vaccination uptake.

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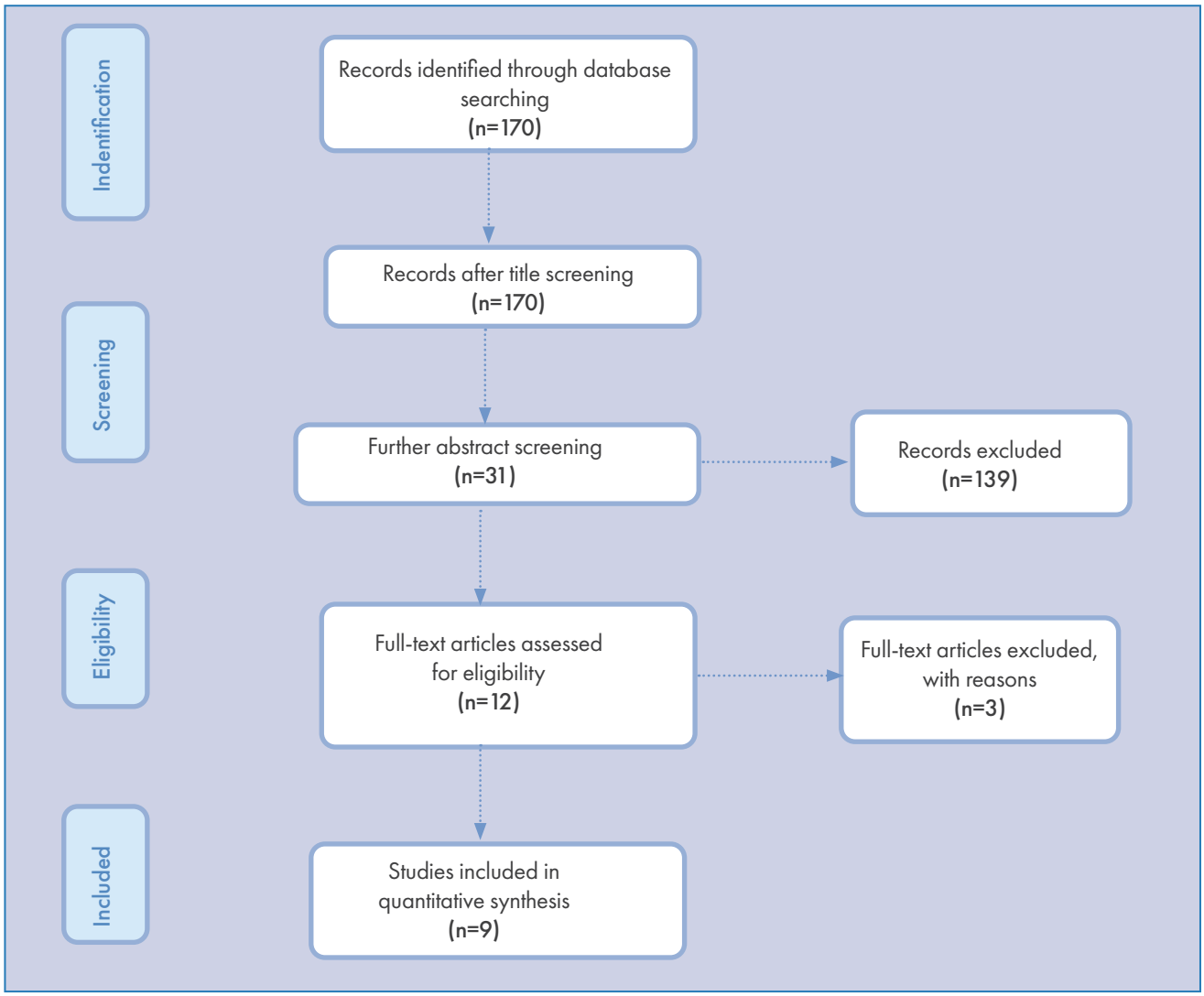
Methods

A rapid evidence synthesis of published literature was conducted. The PubMed database was searched using specific search terms as shown in figure 1. The search generated a total of 170 peer-reviewed publications. A title screening of the publications generated 31 relevant publications and after screening the abstracts, 12 publications remained (11 relevant to Africa and one from the Philippines). Two publications were further dropped, found to be general reviews and did not fit the criteria.

Figure 1: PRISMA flow chart showing the evidence searches



Results

Ten publications were included in the review (table1). Most studies looked at COVID-19 vaccine acceptability, hesitancy, effects of communication strategies, assessed the level and determinants of COVID-19 vaccine, community preparedness, and fears.

The findings revealed that several shared communication messages; mistrust for authorities; popular credence to rumors; progressive spread of fake news; wrong information and false media concerns regarding vaccine safety and effectiveness; and religious and cultural reasons, are contributing to low COVID-19 uptake. The synthesis also found that communication plays a key role in either encouraging or discouraging vaccine uptake.

Table 1: Summary of related publications

Study Title	Intervention	Key findings	Recommendation
Building public trust: a response to COVID-19 vaccine hesitancy predicament. https://doi.org/10.1093/pubmed/fdaa282Vergara, R., Sarmiento, P., & Lagman, J. (2021).	Short surveys and reviews	Distrust, language barriers, and negative emotions such as fear and anxiety contributed to vaccine hesitancy. Infodemics, progressively spread fake news, wrong information, and unreliable media emerging biopolitics.	More localized public education and role-modeling from public officials and health authorities can help build public trust. Well-defined and effective strategic communication is recommended to advocate for vaccination.
Assessing the level and determinants of COVID-19 vaccine confidence in Kenya. https://doi.org/10.3390/vaccines9080936 Orangi, S., et al, (2021).	Phone-based survey	Factors associated with vaccine hesitancy included: rural regions, and perceived difficulty in adhering to government regulations on COVID-19 prevention.	The messaging and/or interventions should be holistic, focused and targeted to specific groups, raise awareness on the risks of COVID-19 and effectively communicate the benefits and risks of vaccines.
Acceptability of COVID-19 vaccine in Africa. International Journal of MCH and AIDS, 10(1), 134–138. https://doi.org/10.21106/ijma.482 Wirsiy, et al, (2021).	Context-specific immunization roll out plans Health promotion activities	Types of health promotion activities and/or messages, incentives are necessary to achieve broader uptake of the vaccine.	Harnessing social influencers (using trusted community figures and prominent public authorities in an enabling environment) can make vaccine uptake "visible" to others. Context-specific immunization roll out plans will be very important for COVID-19 vaccination to be successful.
Vaccine intentions in South Africa: health communication strategy to address vaccine hesitancy. BMC public health, 21(1), 2113. https://doi.org/10.1186/s12889-021-12196-4 Kollamparambil, U., Oyenubi, A., & Nwosu, C. (2021).	Health communication strategy	Higher awareness of COVID-19 related information and household income are correlated with lower vaccine hesitancy. The non-black African population group has significantly high vaccine hesitancy compared to black Africans. Females have a high level of vaccine hesitancy. Individuals with tertiary education have a significantly lower hesitancy compared to those with lower levels.	Provide more vaccine-related information to enhance vaccine acceptance i.e., the health-risk appeal ratio.
Can communication strategies combat COVID-19 vaccine hesitancy with trade-off between public service messages and public skepticism? https://doi.org/10.3390/vaccines9070757 Qiang Jin et al., (2021).	Traditional media and public service messages	Fear appraisal was the most viable communication strategy in combating vaccine hesitancy. Public skepticism negatively moderated the effects of public service message attributes on willingness to get vaccinated.	The use of public service messages incorporating fear appraisals via traditional media can be an effective strategy to counter vaccine hesitancy.

Pharmacists and COVID-19 vaccination considering mobile phone caller tunes as a novel approach to promote vaccine uptake in low- and middle-income countries https://doi.org/10.1016/j.sapharm.2021.07.022 Appiah B et al., (2021).	Mobile phones callbacks	Songs produced to have information on COVID-19 vaccines can be used as caller tunes.	Using phone caller tune-based messaging can be an effective advocacy for COVID-19 vaccination program.
Effect of a social media-based counseling intervention in countering fake news on COVID-19 vaccine in Nigeria. Felix Olajide Talabi et al., (2021).	Social media-based counseling and WhatsApp group chat	Those exposed to fake news reported greater negative perception on vaccination. Counseling intervention enhanced positive perception regarding COVID-19 vaccination.	Increasing counseling to counter fake news within the context of health promotion.
"They have produced a vaccine, but we doubt if COVID-19 exists": correlates of COVID-19 vaccine acceptability among adults in Kano, Nigeria. https://doi.	Structured questionnaires	Vaccine safety, efficacy and infertility-related rumors, mistrust for authorities, and popular credence to rumors and conspiracy theories.	Context-specific, evidence-based risk communication strategies and trust-building measures could boost vaccine confidence in similar settings.
COVID-19 vaccine roll-out in South Africa and Zimbabwe: Urgent need to address community preparedness, fears and hesitancy. Tafadzwa Annamaria et al., (2021).	COVID-19 vaccine communication strategies in the South African and Zimbabwean contexts	Position the COVID-19 vaccine as a tool to champion economic programs. Segmentation of COVID-19 vaccine market and strategic approach to vaccine communication.	Provision of sufficient information and factual messages. Use of champions (artists, politicians, and religious leaders) to raise community awareness and advocate for vaccine uptake.

Discussion

Risk communication

Zubairu et al., (2021) noted that themed messages minimized doubts about the existence of COVID-19, mistrust for authorities, popular credence to rumors and conspiracy theories. In addition, context-specific, evidence-based risk communication strategies coupled with trust-building measures could boost vaccine confidence in local settings. In risk messaging, there is need to explore the suitability and reach of mobile phones to provide more vaccine-related information that could potentially minimize vaccine hesitancy (Kollamparambil & Nwosu, 2021; R., Sarmiento, P., & Lagman, J., 2021).

Audience segmentation

One study reported there is a need to segment the COVID-19 vaccine market to ensure maximum benefits. Communication joint efforts between government agencies and civil society to reach the communities (Tafadzwa et al., 2021).

Deploying new technologies architecture

Enhanced technologies and platforms should be factored into public health communication. New technologies architecture can be amplifiers of public health communication and public engagement. However, new technology platforms such as social media should be assessed for their suitability and virility in varied settings. These new platforms rolled out during public health crises should build upon existing systems already in place (Appiah B et al., 2021).

Felix Olajide et al., (2021) posit that social media-based counseling interventions can be deployed to counter fake news about the COVID-19 vaccine. The studies further emphasize the need to increase counseling in countering fake news within the context of health promotion.

Telephone ringtone signature songs containing information synapsis on COVID-19 vaccines to be used as caller tunes. COVID-19 vaccine messages can be recorded from a variety of popular figures, including movie stars, sports celebrities, and religious leaders. Spokes people with wide appeal across different characteristics would also be used to record these messages (Appiah. B et al., 2021).

Enhancing strategic communication through partnerships with non-health actors

Tafadzwa et al., (2021) advocates for governments to collaborate with social champions such as artists, politicians, and religious leaders to give correct messages on COVID-19 vaccination.

Trusted sources of information

Existing trusted traditional methods of communication channels such as community engagement efforts; health promotion activities; community sensitization; endorsements and buy-in from local champions, celebrities and authorities; logistic considerations; and incentives to health counsellors/workers to create demand, can also complement modern strategies.

Thus, developing and using trusted messengers to relay the COVID-19 vaccine information landscape and building trust in COVID-19 vaccines is critical in sustaining efforts of vaccine acceptance and uptake (Wirsiy, et al., 2021; R., Sarmiento, et al; (2021).

COVID-19 vaccination message positioning

A vital communication technique is the sequencing of public health choice of words and having single-focused messaging. The goal of message position is to have a clear, distinct, and desired outcome to rival acts or behaviors. Vaccine reluctance can be addressed if the essential message is strategically worded. This must be led by the provision of adequate information and the use of appropriate message delivery methods (Tafadzwa et al., 2021).

Public health communication vaccination messaging should be compared and contrasted against competing or alternative behaviors. Empirical studies have established six key determinants of the likelihood of COVID-19 vaccine acceptability in Africa. These include vaccine apprehension, misinformation, religion, vaccine rollout strategies, social forces, and the enabling environment, all of which influence attitude and uptake (Wirsiy, et al, 2021; Qiang et al., 2021).

Conclusion

Concerns regarding vaccine safety and effectiveness, non-reliable information, religious and cultural reasons are associated with low vaccination. Health promotion activities and/or messages, incentives, and endorsements are necessary to achieve broader uptake of the vaccine.

Among others approaches, there is need for segmentation of the COVID-19 vaccine market and strategic approach to vaccine communication.

Recommendations

- Refine communication strategy to incorporate risk messages which are context-specific to different cultural groups. Public health communication vaccination messaging should be compared and contrasted against competing or alternative behaviors.
- Have a dual COVID-19 vaccine message encompassing trusted traditional and digital sources of communication.
- Engage and tap into partnership with non-health actors such as social champions (artists, politicians etc.,).
- Audience segmentation given that 'one size does not fit all.'

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