Short Communication

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Vaccine hesitancy in Malawi: a threat to already-made health gains

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Abstract

Malawi faces a growing concern about vaccine hesitancy. This threatens to undermine significant strides in the fight against infectious diseases in the country. Vaccine hesitancy in Malawi is driven by multiple factors. This short communication discusses the extent of vaccine hesitancy in Malawi and its main drivers according to SAGE's (Strategic Advisory Group of Expert) 3Cs (confidence, complacency and convenience) model of vaccine hesitancy. As an escalating health concern, it is imperative to address it urgently. It is imperative to address it urgently through comprehensive and sustainable awareness campaigns that should aim to increase acceptance and demand for vaccines.

Keywords: complacency, immunisations, Malawi, vaccine confidence, vaccine hesitancy

Introduction

Vaccination stands as one of the most important scientific discoveries and public health achievements in the fight against diseases[1,2]. Vaccines currently prevent 4 million childhood deaths a year, with the potential to prevent 50 million deaths between 2021 and 2030 if global coverage targets for vaccination are met[3]. In contemporary times, the massive role of vaccines has transcended infectious disease control, extending to the prevention of cancers[4,5]. However, these improvements are put under serious threat by recent declines in vaccine coverage attributed to vaccine hesitancy resulting in an increase in vaccine-preventable diseases[6].

The Strategic Advisory Group of Expert (SAGE) Working Group on Vaccine Hesitancy defines Vaccine Hesitancy as a delay in acceptance or refusal of vaccination despite the availability of vaccination services[7]. Vaccine hesitancy's implication on public health is so enormous that, in 2019, the World Health Organization (WHO) designated it as one of the ten threats to global health, ranking it in the same group as such threats as air pollution and climate change[8]. The complexity of vaccine hesitancy entails that it varies by context, time, place and vaccine[9,10]. Malawi, a low-income country in Sub-Saharan Africa, also faces an uprising threat of vaccine hesitancy yet lacks a clear action plan to address the problem. This short communication, therefore, seeks to discuss the extent of vaccine hesitancy in Malawi and its main drivers according to SAGE's 3Cs model of vaccine hesitancy and suggest ways for addressing it.

Vaccine hesitancy in Malawi: situational analysis

Vaccine hesitancy is a growing concern in Malawi, leading to low vaccine uptake. For instance, despite the availability of vaccines, as of May 2023, Malawi had a coronavirus disease 2019 (COVID-19) uptake rate of 40% only, which is significantly lower than the 60% national coverage target and the 72% global COVID-19 vaccination status reported in March 2023[11–13]. Additionally, in the aftermath of the COVID-19 pandemic, the routine immunisation coverage rate dropped from 95 to 93%[14]. Multiple studies done in the country show that vaccine hesitancy is driven by a combination of interrelated and interconnected factors categorised into caregiver-related factors, health systems-related factors, and community context[15]. Specifically, these factors include drivers including inadequate awareness of the vaccination schedule, rumours and conspiracy theories exacerbated by religious beliefs[16,17].

The context of vaccine hesitancy in Malawi can be described in line with the SAGE's 3C model of vaccine hesitancy. The 3C's encompass confidence, complacency and convenience. The confidence in the healthcare system of some proportion of the population has dwindled by a great degree[18,19]. Apparently, the genesis of this was the introduction of the COVID-19 vaccine. Being a disease whose origin was painted by conspiracy theories, its vaccine was also welcomed by the same line of reasoning. Some even believed that COVID-19 was lethal, and they did not receive it[11]. Their mistrust has extended to all the other vaccines, claiming it is possible that a component of the COVID-19 vaccine might have been added as well. As an instant consequence,

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the routine immunisation coverage rate has dropped in the country[12].

Complacency to receive the vaccines also massively contributes to vaccine hesitancy. The health belief model predicts that perceived susceptibility and severity of a disease condition evoke the uptake of preventive measures[20]. This requires a personal account or sufficient knowledge of the diseases. In Malawi, knowledge of most vaccine-preventable diseases is generally low[21]. The low vaccine demand and uptake resulting from low levels of disease state knowledge are well manifested in the low urge to receive the human papillomavirus (HPV) vaccine that has been reported in multiple studies[16,17]. When the HPV vaccine was provided in schools, most girls would abscond from school on the days scheduled to administer the vaccine. Vaccination hesitancy nurtured from a young age presents a big concern as it threatens to impede vaccine uptake in future generations. For a country known for high vaccination coverage, Malawi risks losing out on maintaining those high standards. This emphasises that there is no better time than now to devise strategies to manage this threat before it escalates and causes long-lasting consequences.

With regard to convenience, the healthcare system in Malawi strives to create an appealing environment for the population to readily accept vaccines. There are schedules for vaccination, and the vaccines are readily available free of charge in most health facilities. There are also frequent outreach clinics for hard-to-reach areas. However, most people in rural areas miss out on vaccination because they are not aware of the vaccination schedules.

According to the 3Cs model and the context in Malawi, vaccine hesitancy mainly leans upon the low confidence and complacency of the population. Prospects to address the outlined threats lie in dim light because of the reported disconnect between community healthcare workers, community leaders and the community[10].

Recommendations

Therefore, there is a need for a collaborative action plan to conduct health promotion programmes to improve the population's awareness of vaccines and vaccine-preventable diseases as well as root out the reigning mistrust that is held against the health system. This is in line with the 2018 Assessment Report of the Global Vaccine Action Plan, which recommended that each country develop a strategy to increase acceptance and demand for vaccination[22]. That plan could serve as a guiding framework for all stakeholders in the efforts to combat vaccine hesitancy. Since vaccine hesitancy is dynamic and prone to changes in response to social settings, there is also a need for continual monitoring of vaccine hesitancy patterns and their determinants. This could help identify any emerging threats to vaccine acceptance and address them quickly.

There is also a need to conduct more door-to-door vaccination campaigns. This is a vaccination strategy that proved successful during the COVID-19 pandemic, and the 2023 typhoid, polio and measles integrated vaccination campaign[14,23,24]. This could afford the households an opportunity to have their concerns about vaccination addressed by the vaccinators, thereby increasing the demand for the vaccines. This could also help in monitoring new trends in vaccine hesitancy in the communities.

Additionally, there is a need to include vaccination topics in the school curriculum. This would help empower the younger generation with correct information regarding vaccines. Furthermore, it would help address myths and misconceptions about vaccines that children are exposed to in society.

Finally, cross-cutting research projects should be carried out to understand the full spectrum of the determinants of vaccine hesitancy and its impact on Malawi's vaccination targets.

Conclusion

Vaccine hesitancy in Malawi presents an increasing public health concern. Though the full extent of its determinants is yet to be unveiled; currently, low confidence and complacency are the biggest driving factors. Urgent health promotion programmes and continuous monitoring are required to address this problem.

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Consent

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Author contribution

A.F.L. and A.N.B.: conceptualization, project administration, and writing – review and editing, and designing; L.M.: reviewed and edited the first and second drafts; M.M., G.D.C., and M.K.: review and proof editing the final draft. All authors were involved in manuscript writing and read and approved the final manuscript.

Conflicts of interest disclosure

The authors declare that they have no conflicts of interest.

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I, Dr Akim Nelson Bwanali, accept full responsibility for this work and declare that this is our original work.

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References

[1] Rodrigues CMC, Plotkin SA. Impact of vaccines; health, economic and social perspectives. Front Microbiol 2020;11:1526.

[2] Saadatian-Elahi M, Horstick O, Breiman RF, *et al*. Beyond efficacy: the full public health impact of vaccines. Vaccine 2016;34:1139–47.

[3] Centers for Disease Control and Prevention Fast Facts on Global Immunization. Centers for Disease Control and Prevention; 2023. Accessed 29 May 2023. https://www.cdc.gov/globalhealth/immunization/data/fast-facts.html

[4] Hajj Hussein I, Chams N, Chams S, *et al*. Vaccines through centuries: major cornerstones of global health. Front Public Health 2015;3:269.

[5] Greenwood B. The contribution of vaccination to global health: past, present and future. Philos Trans R Soc B Biol Sci 2014;369:20130433.

[6] Dubé E, Vivion M, MacDonald NE. Vaccine hesitancy, vaccine refusal and the anti-vaccine movement: influence, impact and implications. Expert Rev Vaccines 2015;14:99–117.

[7] MacDonald NE. Vaccine hesitancy: definition, scope and determinants. Vaccine 2015;33:4161–4.

[8] WHO. Ten health issues WHO will tackle this year. Accessed 29 May 2023. https://www.who.int/news-room/spotlight/ten-threats-to-global-health-in-2019

[9] Eskola J, Duclos P, Schuster M, *et al*. How to deal with vaccine hesitancy? Vaccine 2015;33:4215–7.

[10] Compass. Report of the Sage Working Group on Vaccine Hesitancy. The Compass for SBC. Accessed 29 May 2023. https://thecompassforsbc.org/sbcc-tools/report-sage-working-group-vaccine-hesitancy

[11] Trading Economics. Malawi Coronavirus COVID-19 Vaccination Rate – July 2023 Data. Accessed 17 July 2023. https://tradingeconomics.com/malawi/coronavirus-vaccination-rate

[12] The New York Times. Covid World Vaccination Tracker – The New York Times. Accessed 17 July 2023. https://www.nytimes.com/interactive/2021/world/covid-vaccinations-tracker.html

[13] Ao Q, Egolet RO, Yin H, *et al*. Acceptance of COVID-19 vaccines among adults in Lilongwe, Malawi: a cross-sectional study based on the Health Belief Model. Vaccines 2022;10:p. 760.

[14] ReliefWeb. Amidst crises, Malawi showcases resilience with major vaccination push – Malawi | ReliefWeb; 2023. Accessed 29 May 2023. https://reliefweb.int/report/malawi/amidst-crises-malawi-showcases-resilience-major-vaccination-push

[15] Adamu AA, Essoh TA, Adeyanju GC, *et al*. Drivers of hesitancy towards recommended childhood vaccines in African settings: a scoping review of literature from Kenya, Malawi and Ethiopia. Expert Rev Vaccines 2021;20:611–21.

[16] Adeyanju GC, Betsch C, Adamu AA, *et al*. Examining enablers of vaccine hesitancy toward routine childhood and adolescent vaccination in Malawi. Glob Health Res Policy 2022;7:28.

[17] Ports KA, Reddy DM, Rameshbabu A. Barriers and facilitators to HPV vaccination: perspectives from Malawian women. Women Health 2013;53:630–45.

[18] Safary E, Mtaita C. A qualitative exploration of perceptions of the COVID-19 vaccine in Malawi during the vaccine rollout phase. One Health Implement Res 2022;2:79–87.

[19] Ferree KE, Harris AS, Dulani B, *et al*. Stigma, trust, and procedural integrity: Covid-19 testing in Malawi. World Dev 2021;141:105351.

[20] Rosenstock IM. Health Belief Model. Encyclopedia of Psychology, Vol 4. American Psychological Association; 2000:pp. 78–80.

[21] Gerstl S, Lee L, Nesbitt RC, *et al*. Cervical cancer screening coverage and its related knowledge in southern Malawi. BMC Public Health 2022;22:295.

[22] World Health Organization. 2018 assessment report of the Global Vaccine Action Plan: strategic advisory group of experts on immunization. World Health Organization; 2018.

[23] Lubanga AF, Bwanali AN, Munthali L, *et al*. Malawi vaccination drive: an integrated immunization campaign against typhoid, measles, rubella, and polio; health benefits and potential challenges. Hum Vaccines Immunother 2023;19:2233397.

[24] Sethy G, Chisema MN, Sharma L, *et al*. 'Vaccinate my village' strategy in Malawi: an effort to boost COVID-19 vaccination. Expert Rev Vaccines 2023;22:180–5.