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Dynamic factors associated with COVID-19 vaccine uptake in Cameroon between 2021 and 2022

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Abstract

Background: Little is known about attitudes towards COVID-19 vaccination in sub-Saharan Africa, where immunisation coverage is the lowest in the world.

Aim: The study aimed to identify factors associated with COVID-19 vaccine hesitancy and uptake in Cameroon, and assess changes in these factors over a period of time.

Setting: The study was conducted in the ten regions of Cameroon.

Methods: The authors conducted a two-phase cross-sectional survey in the 10 regions of Cameroon, from July 2021 to August 2021 (Phase one) and from August 2022 to September 2022 (Phase two). We analysed reasons for vaccine hesitancy descriptively and used logistic regression to assess factors associated with hesitancy.

Results: Overall, we enrolled 12 109 participants: 6567 (54.23%) in Phase one and 5542 (45.77%) in Phase two. Of these, 8009 (66.14%) were not interested in receiving the COVID-19 vaccine ($n = 4176$ in Phase one, $n = 3833$ in Phase two). The refusal rate increased significantly in the northern region from 27.00% in Phase 1 to 60.00% in Phase two. The leading contributor to COVID-19 vaccine hesitancy was fear that the vaccine was dangerous, which was significantly associated (95% confidence interval [CI], $p < 0.05\%$) with

vaccine refusal in both phases. Overall, 32.90% of participants ($n = 2578$) perceived the COVID-19 vaccine to be dangerous. Advanced age, male gender, Muslim religion and low level of education were associated with vaccine acceptance. Participants reported that healthcare workers were the most trusted source of information about the COVID-19 vaccine by 5005 (42.84%) participants.

Conclusion: Despite the investment of the Ministry of Health and its partners in community engagement, focussing on communication about the vaccine efficacy, tolerance and potential adverse events, fear of the vaccine remains high, likely leading to vaccine hesitancy in Cameroon between 2021 and 2022.

Contribution: The study highlight regional variations in COVID-19 vaccine acceptance in Cameroon, with factors age, gender, religion and education influencing willingness to vaccine. Trust in health workers was high, indicating that, tailored, community-led vaccination strategies are key for improving vaccine uptake, not only for COVID-19 but also for future epidemics.