

6 in 10 adult Ghanaians likely to take COVID-19 vaccine if it was made generally available by the government; however, this covers only half of the total population needed to attain 70% herd immunity

Accra, March 01, 2021 - iRIS Research Consortium ("iRIS Research") announces the release of its survey assessing the potential acceptance of the coronavirus (COVID-19) vaccine among Ghanaians.

Background: The success of the COVID-19 vaccination programmes worldwide relies heavily on public willingness to accept the vaccine. Nevertheless, vaccine hesitancy, which the World Health Organisation (WHO) refers to as the "delay in acceptance or refusal of vaccines despite availability of vaccination services", has been gaining traction in recent months. Global vaccine hesitancy is driven by safety and efficacy concerns which are further fuelled by conspiracy theories on social media. Ghana recently received 600,000 doses of the COVAX vaccine to begin its vaccination campaign. It is against this background that iRIS Research conducted this survey to examine Ghanaians' vaccine hesitancy attitudes and identify the likelihood of participation or non-participation in the government's effort to vaccinate citizens.

Methods: A cross-sectional online survey was conducted over five days between 23 and 28 February 2021. The questionnaire was developed using Microsoft Forms and distributed through various social media channels: Facebook, WhatsApp, Twitter and LinkedIn. Our sampling is premised on the snowballing or chain-referral approach1 using virtual networks to reach the population with an online presence, allowing us to meet time constraints and cost objectives. While selection bias issues are a potential obstacle, we argue that reaching out to Ghana's online population is an extremely useful exercise as any indication of strong vaccine hesitancy within the 'literate population' has serious consequences for those less literate. Research also shows that misinformation or 'fake news' tends to be shared or forwarded on such online social networks. Thus, the principal reason we focused on persons on social media is that they are the most connected to the outside world and so are more likely to be influenced by online vaccine conspiracies. This also means that some of the adult population. for example, who are not connected to the internet, may rather be more likely to take the vaccine or be persuaded by those on social media via word of mouth not to take it if the latter has a greater influence - for example, financially supports them. Participation in this study was voluntary, and there was no compensation provided. Also, all responses were fully anonymised. Baseline demographic data collected included gender, age, educational attainment and region of residence. A total of 2,345 respondents filled out the questionnaire, which had close-ended questions. The high-level breakdown of the demographic profiles is as follows: males (57.4%); age (26-35 years: 41.1%); Bachelor's degree (50.7%); Greater Accra Region (64.5%). The average completion time was 3 minutes and 50 seconds.

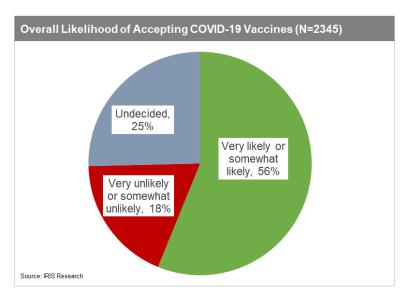
Results: Our findings suggest that about 6 in 10 (56%) adult Ghanaians 15 years and above are likely to take the COVID-19 vaccine if it was made generally available by the Government of Ghana. This comprises those who answered "very likely or somewhat likely" to the question: "how likely are you to take the COVID-19 vaccine if it was made generally available by the Government of Ghana?". Another 25% or 3 in 10 of the sampled population indicated that they are "undecided" about taking the vaccine. In comparison, another 19% indicated that they are "somewhat unlikely or very unlikely" to take the vaccine.

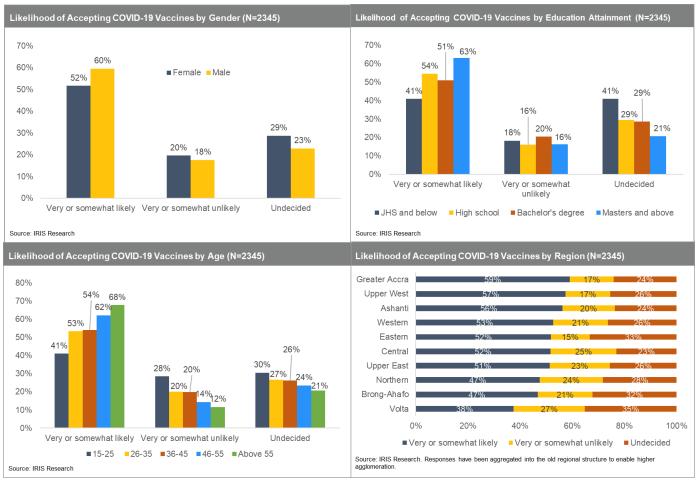
The top three reasons for those very likely or somewhat likely to take the vaccines are: (1) it will help me protect family, friends, and other people in the community (69%); effective at preventing me from getting COVID-19 (67%); and (3) I have a public health responsibility to help fight the pandemic. For those who are undecided, the main reasons they provide are: (1) not being well informed about the possible effects of the vaccine (60%); (2) not being sure that the vaccine is clinically safe (41%); and (3) not being sure that the vaccine is effective to prevent them from getting COVID-19 (23%). Respondents did not highly rank the option that the government will distribute the vaccine to people on protocol lists, which is very reassuring. Finally, those somewhat unlikely or very unlikely to take the vaccine gave the following top three reasons: (1) I am not sure that the vaccine is clinically safe (61%); (2) I am not well informed about the possible effects of the vaccine (53%); and (3) not being sure that the vaccine is effective to prevent them from getting COVID-19 (35%). Again, respondents did not highly rank the option that the government will distribute the vaccine to people on protocol lists.

Regarding the likelihood of taking the vaccine by the different demographic groups, we find some notable differences by gender, age, educational attainment and region of residence. For example, on gender, there is an eight (8) percentage point difference between males (60%) and females (52%) on "very likely or somewhat likely".



On age, those above 55 years are the most "very likely or somewhat likely" to take the vaccine (68%) followed by the 46-55 year group (62%), the 36-45 year group (54%), 26-35 year group (53%) and lastly the 15-25 year group (41%). A likely reason for this is that older population groups have been identified² as relatively more at risk of requiring hospitalisation or dying if they contract COVID-19; hence, it is not surprising they are the most likely to the vaccine in our sample. Such a finding is also consistent with, for example, the UK government³ strategy of vaccinating the most vulnerable population, which includes older persons and those with underlying health conditions. Regarding education attainment, we find that those with master's degree and above were more likely to take the vaccine (63%), followed by bachelor's degree (51%), high school degree (54%), and junior high school and below (41%). Again, this we posit as showing that increased educational attainment levels is likely to drive vaccine uptake. Lastly, the top five regions most likely to take the COVID-19 vaccine are the Greater Accra region (59%), Upper West Region (57%), Ashanti Region (56%), Western Region (53%) and Eastern Region (52%),







What does this mean for COVID-19 vaccine deployment in Ghana?

In general, there is about 60% vaccine acceptance levels within the sampled adult population, indicating an overall positive attitude towards taking the vaccine. Nevertheless, our survey results suggest that attaining the proverbial 70% herd immunity threshold in Ghana is only possible if the preventive vaccination programmes, which just commenced in-country, are combined with an enhanced and coordinated publication education campaign. Based on the finding that 56% of the adult population over 15 years [63% of Ghana's population are over 15 years: 19.5 million] are willing to accept vaccination, the need for intensified public education cannot be overemphasised. This is because attaining the 70% herd immunity threshold requires that at least 21.75 million Ghanaians and residents be vaccinated. However, using our 56% of the adult population over 15 years who are likely to take the COVID-19 vaccine means that only 10.9 million persons [19.5 million x 56%] are likely to take the vaccine. This means that potentially 10.81 million persons or 50% of the 21.75 million total population needed to attain herd immunity are undecided or will likely not take the vaccine, and that must be a concern. It is also further complicated by the fact that there are no vaccines licensed for people below 16 years.

Nevertheless, the inclusion of the "undecided" and "somewhat likely" adult population significantly improves the vaccine uptake and herd immunity dynamics. Hence, the next best thing will be for all the eligible 63% of the adult population above 15 years to be inoculated. Public campaigns should involve multiple channels but with a strong emphasis on Media (TV and Radio) and Social Media (Facebook, WhatsApp, Twitter, among others). These are the primary sources for acquiring information or knowledge among our respondents. Also, nuanced messaging emphasising the efficacy and safety of the vaccine should be strongly considered. These are the main reasons people are undecided or unwilling to take the vaccine. Such messaging should also consider the demographic differences in Ghana's population.

	Population (millions)	Percentage (%)
Ghana 2020 total population	31.07	
70% of the total population needed for herd immunity	21.75	
Ghana's adult population more than 15 years (63%)	19.54	
56% of the adult population more than 15 years likely to take vaccine (from iRIS Survey)	10.94	
Difference (70% total population needed for herd immunity less 56% of adult population willing to take vaccine)	10.81	50%
Difference (63% of the adult population more than 15 years less 56% of adult population willing to take vaccine)	8.60	56%

Notes

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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/961287 /Greenbook_chapter_14a_v7_12Feb2021.pdf

¹ Johnson, T. P. (2014). Snowball sampling: introduction. *Wiley StatsRef: Statistics Reference Online*.

² https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/older-adults.html



Demographic Profile of Survey Respond	ents (N=2345)
Demographic	Proportion of Respondents
Gender	
Female	42.6%
Male	57.4%
Age (years)	
15-25	6.4%
26-35	41.1%
36-45	24.6%
46-55	10.7%
Above 55	17.2%
Level of Education	
JHS and below	0.9%
High school	4.8%
Certificate/Diploma	0.1%
Bachelor's degree	50.7%
Masters and above	43.2%
Other	0.2%
Region	
Greater Accra	64.5%
Ashanti	9.3%
Eastern	4.9%
Central	3.9%
Western	3.5%
Volta	2.8%
Northern	2.5%
Upper West	2.0%
Upper East	1.7%
Bono	1.5%
Oti	0.9%
Bono East	0.9%
Savannah	0.6%
Western North	0.6%
Ahafo	0.3%
North East	0.2%

About iRIS Research: iRIS Research is a limited liability company established in Ghana, which provides consultancy services to both public and private sector clients, locally and internationally. iRIS Research focuses on three core thematic areas, namely: (1) Public Opinion Polling; (2) Market Research & Data Analytics; (3) Research Design & Advisory Services. iRIS Research's bespoke products and service offerings include iRIS Polls™, iRIS Market Research™ and iRIS Research™.

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