



## POLICY BRIEF

# Demand for COVID-19 vaccines in poor urban settlements in Ghana

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Now that COVID-19 vaccines are slowly being supplied around the world, the demand for vaccinations becomes crucial. A survey in Accra, Ghana, reveals that 70% of the urban poor is willing to receive a vaccine, similar to most high-income countries but lower than for the average Ghanaian and many other African countries. For the 30% who are hesitant about the COVID-19 vaccine, the fear of side effects is the biggest concern. Residents who are well informed about the COVID-19 crisis and those who trust their government are far more likely to demand the vaccine. Just under half of the urban poor would be willing to pay for a vaccine and 30% are for compulsory vaccinations. Misinformation about the vaccination is limited, but lack of knowledge – especially about the roll out of vaccines – is still a challenge.

## COVID-19 and vaccination supply in Ghana

Ghana is among the African countries with the largest number of COVID-19 infections, with 99,160 confirmed cases and 815 deaths as of July 22, 2021 (Johns Hopkins, 2021). Like most countries on the continent, Ghana was hit by two waves – the first peak in August 2020 and the second in February 2021. Currently, Ghana is facing the early stages of a third wave.

In February 2021, Ghana was one of the first countries to receive COVID-19 vaccines from COVAX, an international program that aims to help countries vaccinate at least 20% of their population.

As of June 20, 2021, 1.23 million doses had been administered in Ghana and 852,047 people (2.7% of population) had been vaccinated. Priority in the current vaccination plan are people with

underlying conditions, essential service providers, media personnel, teachers, the worst-hit areas of Ghana (Greater Accra Region and Ashanti Region) and the elderly (60+). The next phase of vaccinations will open up to the general population (excl. children below 18 years old and pregnant women), with the aim of vaccinating the entire adult population of 20 million by the end of 2021.

**Understanding vaccine demand and hesitancy is crucial**

Vaccine availability is not the only challenge to reaching national and global herd immunity, which would require 85% of the population to be vaccinated (Shield, 2021). Several studies from around the world have observed insufficient demand for COVID-19 vaccinations to reach this threshold.

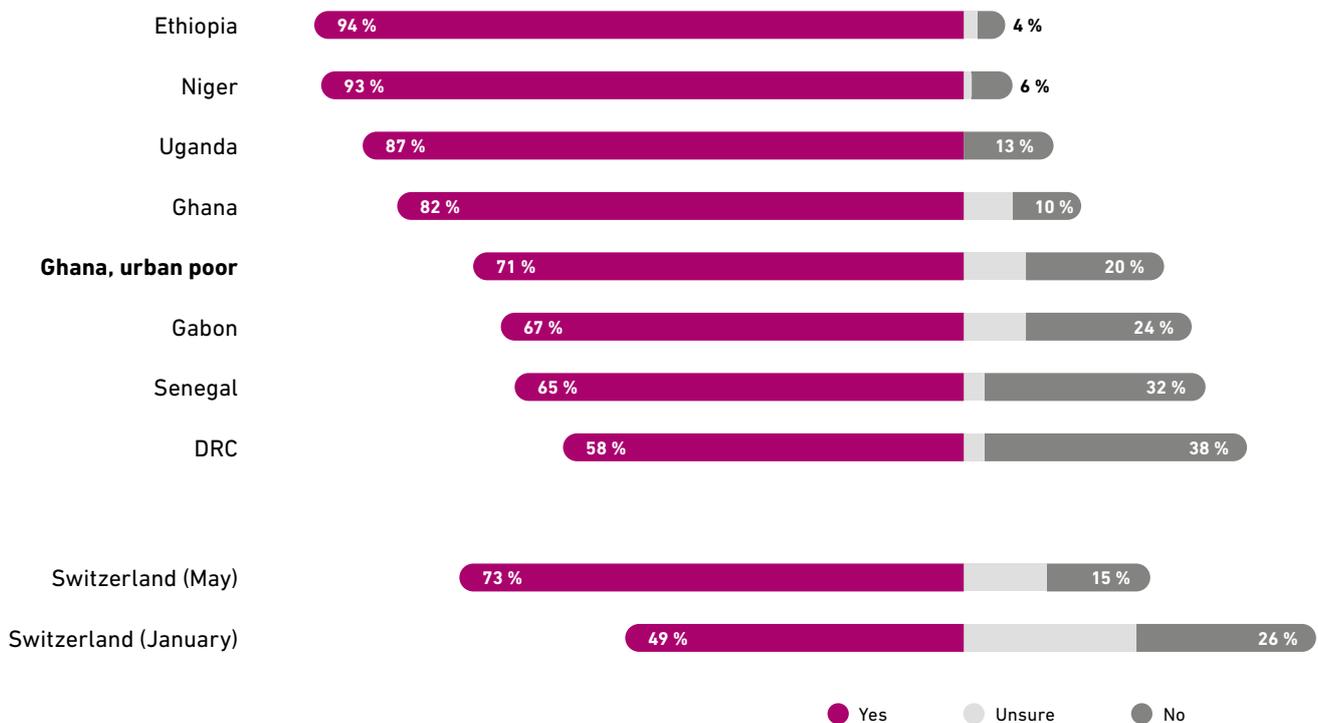
Some people seem to have doubts about vaccine safety because of the record speed with which the vaccines were developed. Possible reduced vaccine effectiveness against virus mutations is also a concern for some, compounded by misinformation and conspiracy theories. A study of 15 African countries shows that almost 1-in-2 respondents believe that COVID-19 is a planned event by foreign actors and that people in Africa are being used as guinea pigs in vaccine trials (Africa CDC, 2021).

To overcome vaccine hesitancy and design appropriate vaccination policies, governments must understand their populations' feelings towards COVID-19 vaccinations. Researchers from the Ghana Health Service, the University of Ghana Business School and the Development Economics Group at ETH Zürich conducted phone surveys with 876 citizens in 18 low-income areas in Accra in March 2021 to analyze the willingness of the urban poor to get vaccinated and better understand the drivers and barriers of demand.

**Higher hesitancy among the urban poor compared to the rest of the country**

Only half of the urban poor strongly agree with getting a vaccine if it is available in Ghana. This share is lower than most of the about 60 countries that have been surveyed around the world by Mannan and Farhana (2020). Adding the share who "somewhat agree with getting vaccinated", 71% of the Ghanaian urban poor are inclined to having a vaccine. This reported willingness is rather low compared with the findings from a study of 15 African countries (not including Ghana) in which only three countries – Gabon (67%), Senegal (65%) and DRC (59%) – have lower demand for vaccinations (Africa CDC, 2021).

**Figure 1: Population (%) that agrees with getting vaccinated against COVID-19**



Note: Question if people strongly agree or somewhat agree to get the COVID-19 vaccine if it is available. The data was collected for Switzerland in January and May 2021, for the Ghana urban poor sample in March 2021, and for the other countries between August and December 2020.

Source: Africa CDC (2021), Brackstone et al. (2021), Zbinden (2021) and own data.

## Demand for vaccines in poor urban settlements in Ghana

Brackston et al. (2021) surveyed all 16 regions in Ghana in March 2021, and show that around 82% of the general population is willing to accept a vaccination. Hence, vaccination demand among the urban poor seems to be lower than among the average Ghanaian. These results are concerning, given that the virus is most likely to spread in densely populated areas.

Moreover, our survey in poor urban Accra was conducted in March 2021 when the first vaccines were already distributed, whereas most other studies in Africa (Africa CDC, 2021) were conducted before a vaccine program had started. For example, in Switzerland – a rather vaccine skeptical country – vaccine acceptance increased considerably from January 2021 to May 2021 after vaccines programs had started (Zbinden, 2021).

### Knowledge and trust are essential for positive vaccine attitude

Among the urban poor in Accra, men, people aged 50+ and respondents with a better financial situation are more likely to demand the vaccine. Education does not seem to play a role. This is in line with the findings from other high- and low-income countries (e.g., Mannan and Farhana, 2020). Moreover, knowledge of the disease (for example, about COVID-19 mutations or how many people are currently infected) generates positive attitudes towards vaccination. Interestingly, trust in government seems to be particularly important. Respondents who trust their government are almost twice as likely to accept a vaccination.

Unfortunately, trust in government has declined over the last year from 82% to 72% among the urban poor (Asiedu et al., 2021) but remains generally high.

### What are the concerns of the urban poor?

Among the 30% of the urban poor who reject vaccination or are indifferent, 80% are concerned about the side effects and 45% of are concerned about effectiveness.

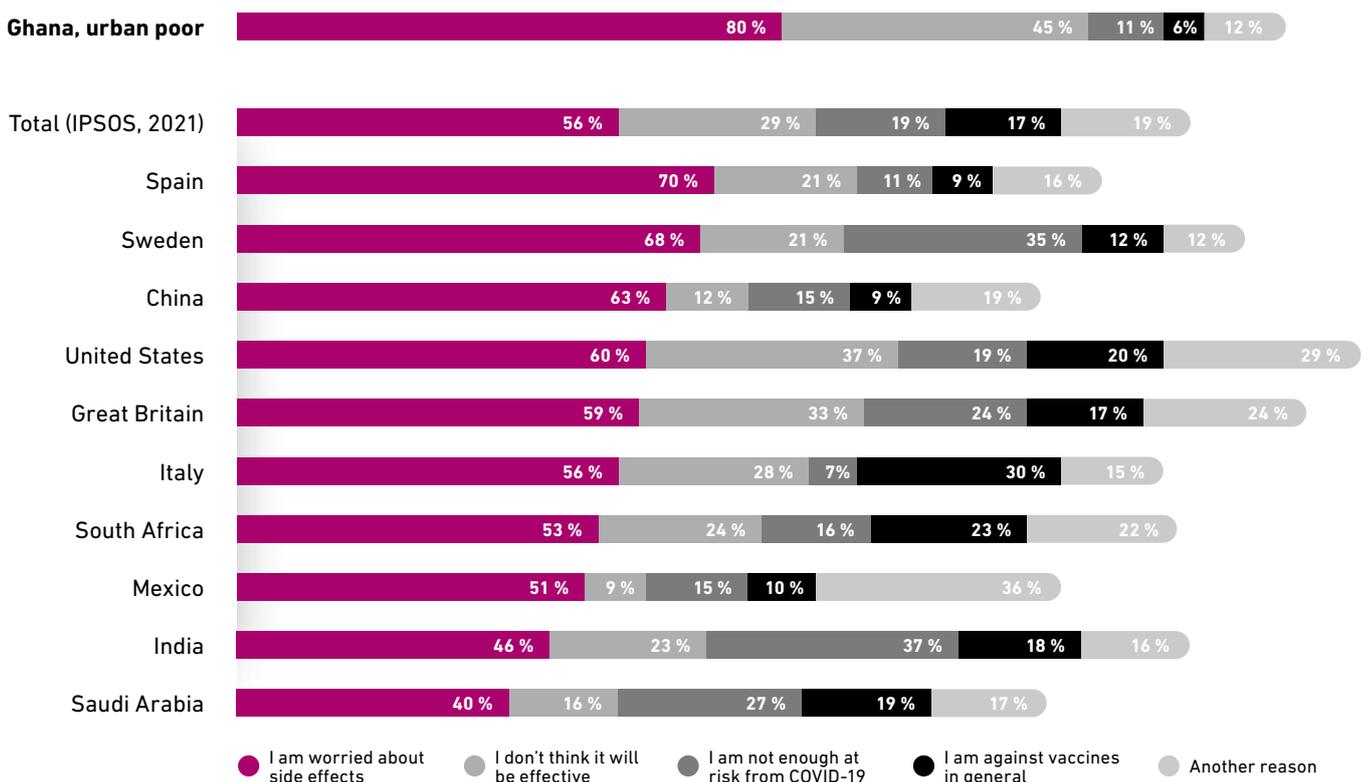
The share of vaccine-reluctant people who worry about side effects is considerably higher than in many other countries (IPSOS, 2021). On the other hand, fewer people in our study than in other countries think they are not at risk of COVID-19 (11%) and fewer people indicate a general vaccine hesitancy (6%). Hence, better information on the vaccine might increase demand.

Our survey results also show that less than a third of the urban poor is in favor of mandatory vaccinations, and vaccine hesitancy increases sharply if people have to pay for the vaccine. Only 42% of the urban poor would get vaccinated if they were required to pay.

### Ghanaians trust in reliable sources ...

The urban poor in Ghana mainly inform themselves about COVID-19 through TV and/or radio (84%) and usually mention

Figure 2: COVID-19 Vaccine hesitancy by reason



Note: Multiple answers possible. Source: Ghana, urban poor from own data; other countries are from IPSOS (2021)

government channels. Around 40% also trust their family, friends or neighbors to provide them with information. Social media only plays a minor role for information (7%), as do newspapers (3%).

### ... but information fatigue is challenging

Although the urban poor in Ghana were well informed about COVID-19 in April 2020 (Durizzo et al., 2021), knowledge updating has been declining since then. About 4% openly admitted not informing themselves about COVID in March 2021, while 38% have never heard of the COVID-19 mutations in the UK, South Africa or Brazil. Knowledge about the official number of infected people also decreased. In March 2021, around 25% knew roughly how many people had been infected since the outbreak of the virus in Ghana, down from 36% in April 2020. Over 80% of the urban poor believed that they would already have access to vaccination by March 2021, despite vaccine shortages.

### Policy Recommendations

1. Vaccine acceptance is lower within the urban poor than in the general population. This clearly indicates that more resources should be directed to convincing poor households that getting a vaccine is in their best interest.
2. Women, people below 50 years old, the poorest and less informed individuals and in particular those who mistrust the government showed the highest hesitancy. While building trust in government is difficult, especially since it has been declining over the last year, working to reverse this trend is crucial.
3. Because social media is not widespread among the urban poor, misinformation is still limited. Nevertheless, it is essential that the government continues conveying information about COVID-19 and vaccines through all media, and in particular through TV and radio.
4. The urban poor's concerns about the side effects of vaccines indicate that the authorities should aim at reassuring the population about the safety of vaccines by providing more information and boosting public confidence.
5. The authorities should keep looking for ways to clearly communicate the phases of the vaccination campaigns to manage citizen expectations. Many respondents wrongly thought that they would be vaccinated in March. Such confusion could weaken trust in the government, which is crucial for a successful vaccination campaign.
6. The government is providing free vaccines. Given the considerable share of respondents who were not willing to pay for vaccines, the authorities adopted the right policy and are strongly encouraged to maintain their efforts.
7. Poor urban residents are strongly opposed to compulsory vaccinations. Keeping COVID-19 vaccination optional is recommended, while continuing intensive public information campaigns to encourage voluntary vaccinations.

## Sources

Africa CDC (2021). COVID-19 Vaccine Perceptions: A 15- country study.

Asiedu, E., Durizzo, K., & I. Günther. (2021). "Covid Fatigue" of the urban poor in Ghana?

Brackstone, K., Atengble, K., Head, M., Akinochi, H., Osei, K., Nuamah, K., Boateng, L. (2021). Examining drivers of COVID-19 vaccine hesitancy in Ghana.

Durizzo, K., Asiedu, E., Van der Merwe, A., Van Niekerk, A. & Günther, I. (2020). Managing the COVID-19 pandemic in poor urban neighborhoods: The case of Accra and Johannesburg. World Development, vol. 137, pp. 105175,

IPSOS (2021). Global Attitudes in a COVID-19 vaccine.

Johns Hopkins (2021). COVID-19 Dashboard by the Center for Systems Science and Engineering.

Mannan, K.A. & Farhana, K.M. (2020): Knowledge, Attitude and Acceptance of a COVID-19 Vaccine: A Global Cross-Sectional Study. International Research Journal of Business and Social Science, Vol. 6, No. 4 (7 December 2020): pp. 1-23.

Shield, D. (2021). COVID: Why experts say her immunity is still out of reach.

Zbinden, M. (2021). 73 Prozent in der Schweiz wollen sich impfen lassen.

## Photo

p.1.: COVAX rollout: COVID-19 vaccinations begin in Ghana - nurse prepares vaccine on March 2, 2021. Photo: WHO / Blink Media - Nana Kofi Acquah, CC BY-SA 3.0 IGO



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