

A Snapshot of COVID-19 Diagnostics Access and Availability in Low- and Middle-Income Countries

Thursday, 26 August 2021

Summary of Survey Results

BACKGROUND

There has been growing concern about the lack of diagnostic testing for COVID-19 in many low- and middle-income countries (LMICs). Contexts can vary widely, and there are many reasons for the lack of COVID-19 testing, ranging from supply, distribution, and cost to capacity and prioritization. The [COVID-19 Clinical Research Coalition](#) therefore launched a brief survey to provide high-level insight into the prioritization, availability, access, and affordability of COVID-19 diagnostics in LMICs. We hope the results of this short survey will help to inform communication and advocacy, and to prompt additional questions.

METHODS

An anonymous, online survey was developed by the Coalition secretariat and reviewed by the [Virology, Immunology & Diagnostics Working Group](#) and members of staff from the Drugs for Neglected Diseases *initiative* (DNDⁱ) for its relevance and scope. The electronic survey was emailed to [coalition membership](#) and stakeholders who have subscribed to coalition updates, as well as to several networks and listservs relevant to the topic. Recipients were invited to share the survey within their networks, which was open for participation for 12 days (8-19 July 2021). The target group invited to participate in the survey is comprised largely of researchers, scientists, health workers, and policy makers.

RESULTS

270 respondents from 74 countries took part in the survey. Most respondents (>95%) were from low- and middle-income countries. The highest proportion, 38% (range 14-38%), of respondents were from non-profit or nongovernmental organizations. The lowest proportion (14%) of the respondents were from governmental organizations.

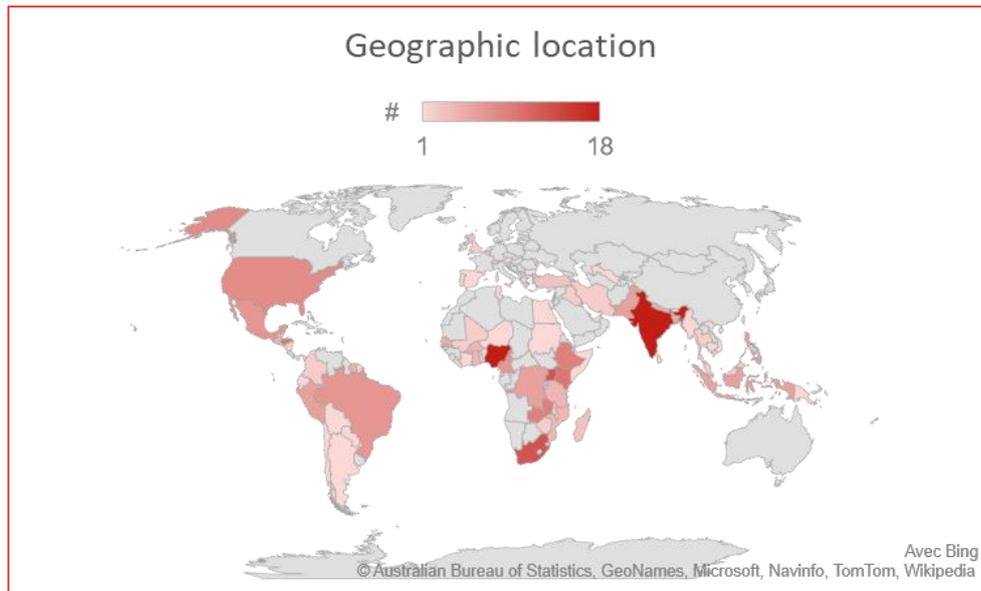


Figure 1: Geographic location of respondents to the survey

Access to and prioritization to COVID 19 testing

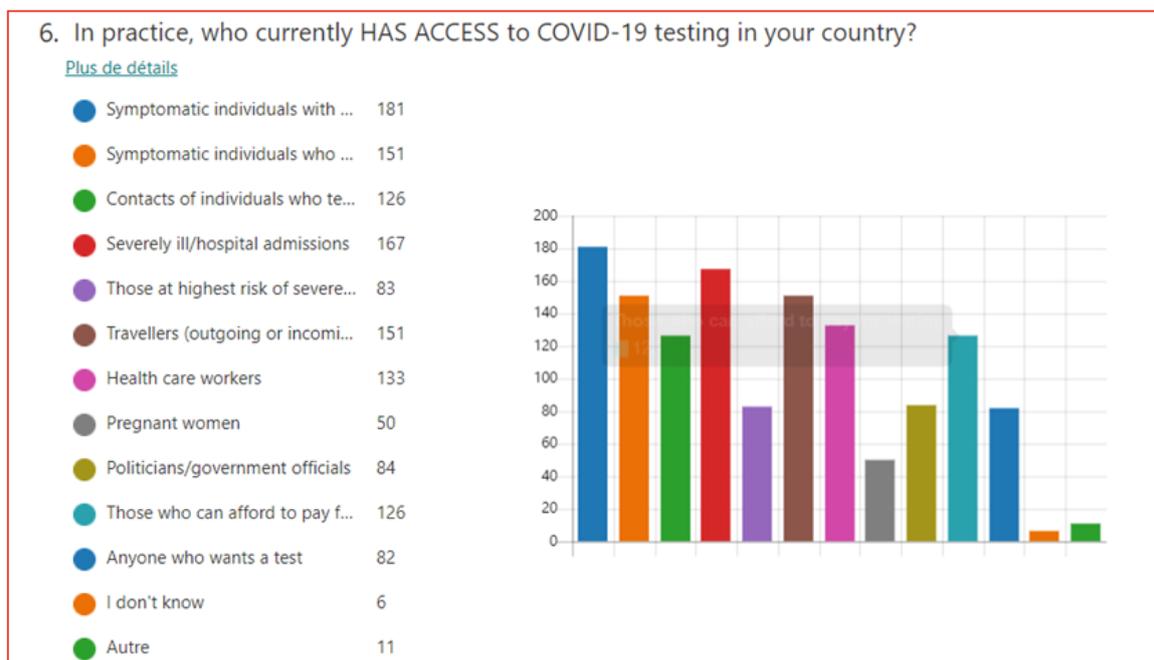


Figure 2: Answers to question 6 of the survey

Symptomatic individuals (either doctor-referred or self-referrals), the severely ill/hospital admissions and travellers were reported to have the highest access to COVID-19 testing (151/270 to 181/270 responses, respectively). Pregnant women, those at highest risk of severe illness and anyone who wants a test had the lowest access to testing. Top prioritization for testing was for symptomatic individuals with a doctor's referral (195) or self-referral (171), travellers (172), and the severely ill/hospital admissions (167).

Type of diagnostics available

The majority (182/270, 67%) of respondents reported PCR as the main testing modality. 72/270 (27%) reported rapid antigen tests (RAT) while only 8/270 (3%) reported both PCR and rapid antigen tests as the main modality. The highest number of respondents (177; 65.6%) reported PCR tests to be available at some public facilities and some private health facilities (152;56.3%). More respondents reported PCR to be available at private laboratories (141) than at public laboratories (104). Only 4 (1.5%) respondents reported PCR tests not to be available in their countries. Symptomatic individuals who present for testing were reported to be more likely to be given a PCR test (149/270) than a rapid antigen test (88/270). Most respondents reported rapid antigen testing to be available at public health facilities (164), private health facilities (150), private laboratories (140), and public laboratories (106). Only 9 respondents reported rapid antigen tests to be unavailable.

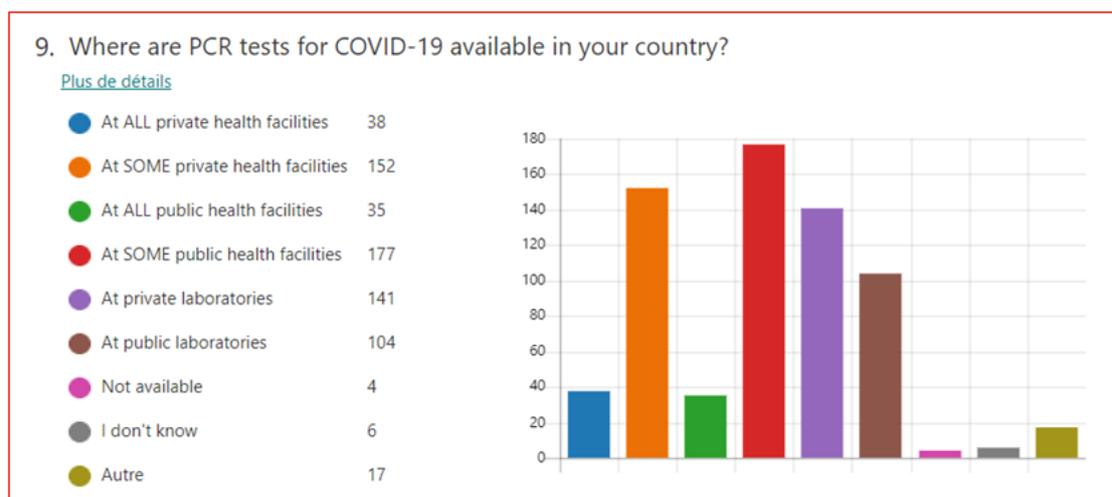


Figure 3: Answers to question 9 of the survey

Cost of tests

PCR test

In public facilities, the majority (152/270) reported no fee for the PCR test. When a fee is paid, cost was reported to be between >10 USD to >100 USD. Most common cost reported (22/97) was between 20-49 USD.

In private facilities, over 80% (217) reported a fee for the PCR test, the most common cost (45) being 50-79 USD. 36 respondents reported a fee of >100 USD for the PCR test in private facilities.

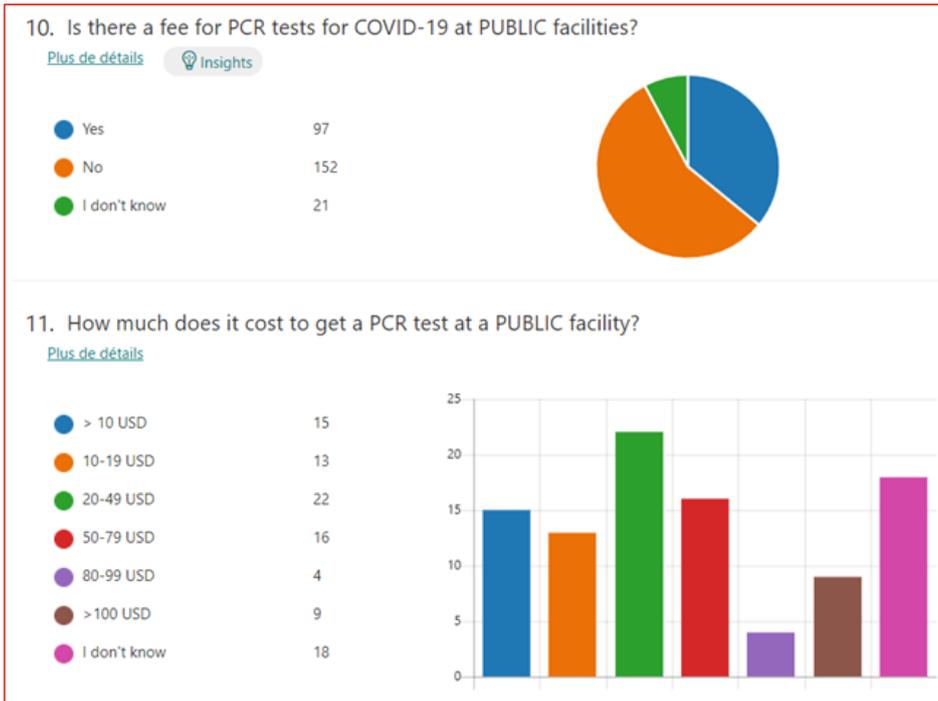


Figure 4: Answers to questions 10 and 11 of the survey

Rapid Antigen Testing

In public facilities, most respondents reported no cost for rapid antigen testing, while in private health facilities, most respondents (175/270) reported a fee for these tests. Of the 74 respondents who reported a cost for rapid antigen testing at a public facility, 24/74 reported a lower cost (>10 USD) at a public facility, compared to the cost in private facilities (USD 20-49) from 53/175 respondents.

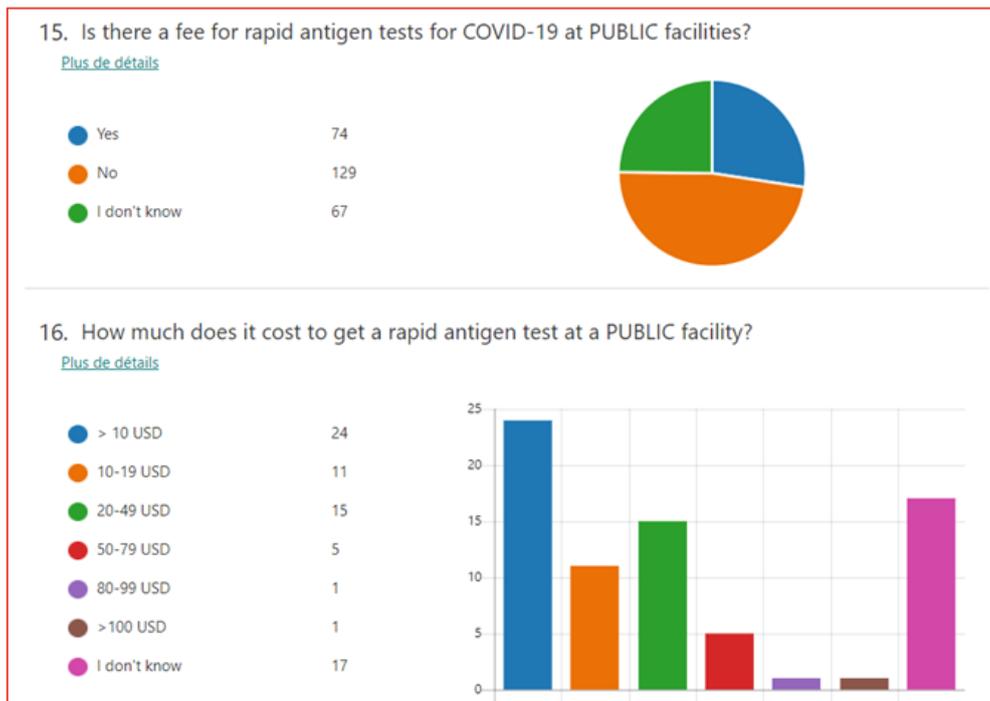


Figure 5: Answers to questions 15 and 16 of the survey

Prioritization of diagnostics in COVID-19 response

Most respondents (91/270) thought that diagnostics were given high priority, 88/270 a medium priority, and 78/270 a low priority. 12/270 felt diagnostics were not prioritized at all. Overall, 238/270 of respondents believe that diagnostic tests should be used more widely and made more available in their countries' response to COVID-19.

Obstacles to wide availability of COVID 19 testing

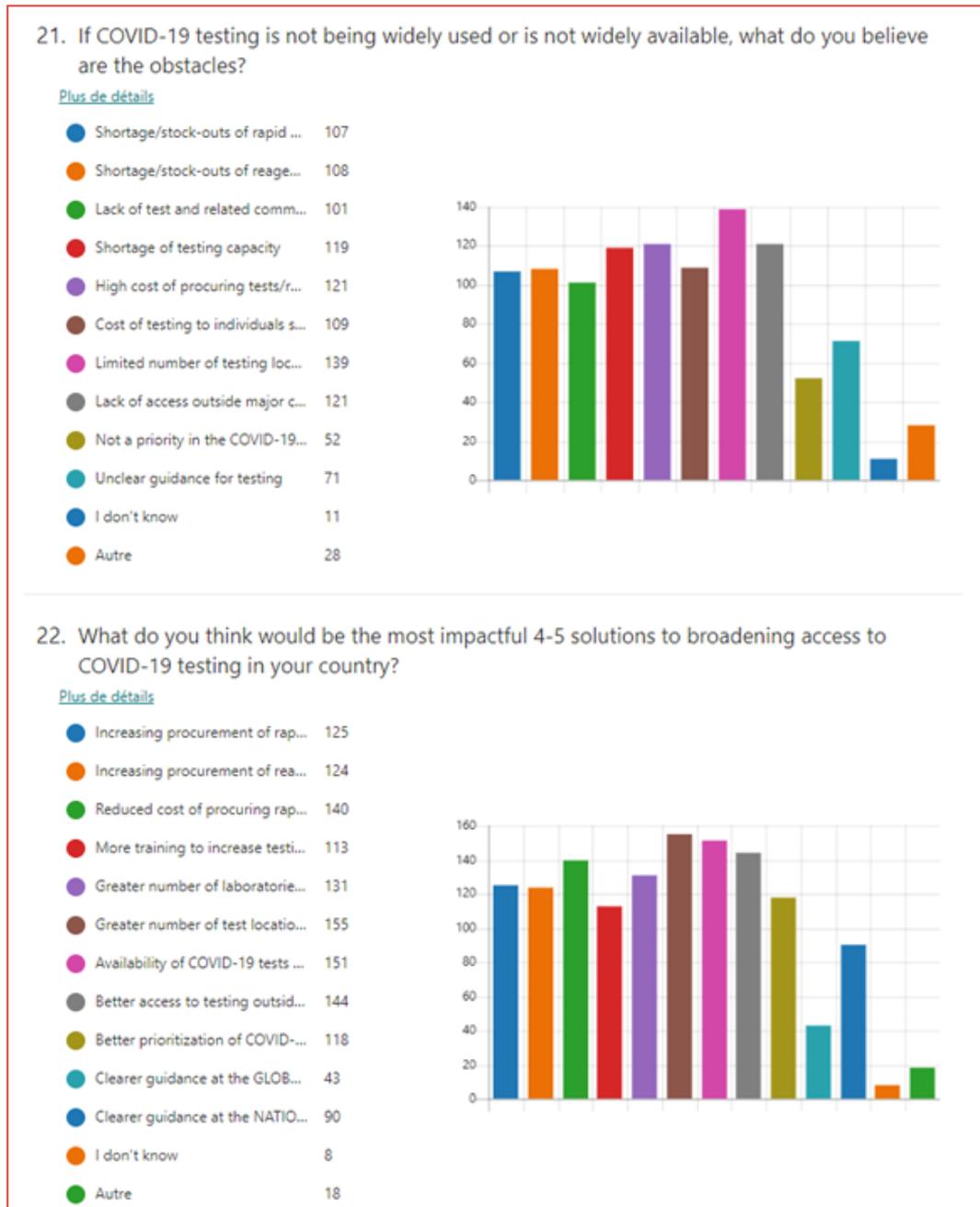


Figure 6: Answers to questions 21 and 22 of the survey

Respondents mentioned multifactorial obstacles to wide use and availability of COVID-19 testing. The most common obstacles included limited number of testing locations, lack of

access outside major cities, high cost of procuring tests/reagents and lack of diagnostic capacity. The most impactful solutions conveyed by at least 51% of respondents to broaden access in their countries included having greater number of testing locations, availability of COVID-19 tests free of charge to the public, better access to testing outside major cities, and reduced cost of procuring rapid tests and commodities for PCR testing.

CONCLUSION

This “pulse check” survey revealed that molecular diagnostic testing capacity and rapid antigen testing capacity exist in most of the countries that were represented. However, the experiences vary between countries. A need to increase access and availability beyond major cities and with multiple testing locations has been highlighted. An obvious hindrance is the high cost of testing as reported by respondents, particularly in the private sector. Another issue of concern is the lack of access to all available diagnostics in public facilities, which are often the only available or affordable point-of-care centres for individuals from low-resource settings. Vulnerable groups such as pregnant women and those at greatest risk for severe disease are perceived to have lowest access to COVID-19 diagnostic testing.

Major efforts are ongoing by regional bodies such as the Africa CDC and PAHO, and by global entities such as WHO, the ACT-A Diagnostics Partnership, and FIND, to increase the diagnostic capacity and test kit availability in many low- and middle-income countries. However, more remains to be done to fill the gaps in terms of access, test availability, and affordability.

ANNEX – Survey instrument

Survey about COVID-19 diagnostics in low-and middle-income countries

There is concern about the lack of diagnostic testing for COVID-19 in many low- and middle-income countries. Contexts can vary widely, and there can be many reasons for the lack of COVID-19 testing, ranging from supply, distribution, and demand-side issues to cost, capacity, and prioritization. Key entities are monitoring and supporting COVID-19 testing, including the Africa CDC, PAHO and others at regional levels, and WHO, ACT-A, FIND and others at the global level.

This short survey (5 minutes or less) is intended to be a “pulse check” regarding the current situation in low- and middle-income countries to help inform advocacy and communications on the issues.

Thank you in advance for sharing what you know and for sharing this survey with others in your network.

YOUR DETAILS

1. Country*
2. Your organization / institution type*
 - University/academic
 - Research/health institute
 - Governmental
 - Non-profit/NGO
3. Your name (optional)
4. Your organization/institution name (optional)

GENERAL

5. Who are the groups PRIORITIZED for COVID-19 testing in your country?* (check all that apply)
- Symptomatic individuals with a doctor's referral
 - Symptomatic individuals who self present for a test
 - Contacts of individuals who test positive
 - Severely ill/hospital admissions
 - Those at highest risk of severe illness
 - Travelers (outgoing or incoming)
 - Health care workers
 - Pregnant women
 - Politicians/government officials
 - Anyone who wants a test
 - I don't know
 - Other:
6. In practice, who currently HAS ACCESS to COVID-19 testing in your country?*
- Symptomatic individuals with a doctor's referral
 - Symptomatic individuals who self present for a test
 - Contacts of individuals who test positive
 - Severely ill/hospital admissions
 - Those at highest risk of severe illness
 - Travelers (outgoing or incoming)
 - Health care workers
 - Pregnant women
 - Politicians/government officials
 - Those who can afford to pay for testing
 - Anyone who wants a test
 - I don't know
 - Other:
7. What is the main COVID-19 testing modality used in your country?*
- PCR
 - Rapid antigen tests (Ag RDTs)
 - Other:
8. If a symptomatic individual presents for COVID-19 testing, are they most likely to be given a rapid antigen test or a PCR test?*
9. Where are PCR tests for COVID-19 available in your country?* (check all that apply)
- At ALL private health facilities
 - At SOME private health facilities
 - At ALL public health facilities
 - At SOME public health facilities
 - At private laboratories
 - At public laboratories
 - Not available
 - I don't know
 - Other:
10. Is there a fee for PCR tests for COVID-19 at PUBLIC facilities?*
- Yes
 - No
 - I don't know
11. (if answer to previous question was YES) How much does it cost to get a PCR test at a PUBLIC facility?*

- > 10 USD
- 10-19 USD
- 20-49 USD
- 50-79 USD
- 80-99 USD
- > 100 USD
- I don't know

12. Is there a fee for PCR tests for COVID-19 at PRIVATE facilities?*

13. (if answer to previous question was YES) How much does it cost to get a PCR test at a PRIVATE facility?*

- > 10 USD
- 10-19 USD
- 20-49 USD
- 50-79 USD
- 80-99 USD
- > 100 USD
- I don't know

RAPID ANTIGEN TESTS

14. Where are rapid antigen tests for COVID-19 available in your country?* (check all that apply)

- At PRIVATE health facilities
- At PUBLIC health facilities
- At PRIVATE laboratories
- At PUBLIC laboratories
- At pharmacies
- Not available
- I don't know
- Other:

15. Is there a fee for rapid antigen tests for COVID-19 at PUBLIC facilities?*

- Yes
- No
- I don't know

16. (if answer to previous question was YES) How much does it cost to get a rapid antigen test at a PUBLIC facility?*

- > 10 USD
- 10-19 USD
- 20-49 USD
- 50-79 USD
- 80-99 USD
- > 100 USD
- I don't know

17. Is there a fee for rapid antigen tests for COVID-19 at PRIVATE facilities?*

18. (if answer to previous question was YES) How much does it cost to get a rapid antigen test at a PRIVATE facility?*

- > 10 USD
- 10-19 USD
- 20-49 USD
- 50-79 USD
- 80-99 USD
- > 100 USD
- I don't know

19. In your opinion, how much priority is being given to diagnostic testing in your country's COVID-19 response?*
- High priority
 - Medium priority
 - Low priority
 - No priority
 - I don't know
20. Do you believe diagnostic tests should be more widely used and more widely available than they are currently in your country's response to COVID-19?*
- Yes
 - No
 - I don't know
21. If COVID-19 testing is not being widely used or is not widely available, what do you believe are the obstacles?*(check all that apply)
- Shortage/stock-outs of rapid antigen tests
 - Shortage/stock-outs of reagents or other supplies needed for PCR testing
 - Lack of test and related commodity procurement
 - Shortage of testing capacity
 - High cost of procuring tests/related commodities
 - Cost of testing to individuals seeking tests
 - Limited number of testing locations
 - Lack of access outside major cities
 - Not a priority in the COVID-19 response
 - Unclear guidance for testing
 - I don't know
 - Other:
22. What do you think would be the most impactful 4-5 solutions to broadening access to COVID-19 testing in your country?*(Select the top 4 or 5, according to you)
- Increasing procurement of rapid antigen tests
 - Increasing procurement of reagents and other supplies needed for PCR testing
 - Reduced cost of procuring rapid tests and commodities for PCR testing
 - More training to increase testing capacity
 - Greater number of laboratories with COVID-19 testing capacity
 - Greater number of test locations for the population
 - Availability of COVID-19 tests free of charge to the public
 - Better access to testing outside major cities
 - Better prioritization of COVID-19 testing in the national response
 - Clearer guidance at the GLOBAL level for COVID-19 testing
 - I don't know
 - Other:
23. If you were to describe the COVID-19 diagnostics situation in your country in a sentence or two, what would you say?*
24. Any other comments?

All questions marked with an * are mandatory.