Use of SARS-CoV-2 antigen-detection rapid diagnostic tests for COVID-19 self-testing

INTERIM GUIDANCE

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Web Annex C. Multi-country study of values and preferences on COVID-19 self-testing using SARS-CoV-2 Ag-RDTs

Sonjelle Shilton, Guillermo Z. Martínez-Pérez, Morenike Oluwatoyin Folayan, Caroline Thomas, Griffins Manguro, Cesar Carcamo, Michael Wilson, Danvic Rosadiño, Álvaro Machado Dias, Tripti Sharma, Albert Roca, Elena Ivanova Reipold
Multi-country study of values and preferences on COVID-19 self-testing using SARS-CoV-2 Ag-RDTs

Sonjelle Shilton¹, Guillermo Z. Martínez-Pérez¹, Morenike Oluwatoyin Folayan², Caroline Thomas³, Griffins Manguro³, Cesar Carcamo⁵, Michael Wilson⁶, Danvic Rosadiño⁶, Álvaro Machado Dias⁸, Tripti Sharma⁹, Albert Roca¹⁰, Elena Ivanova Reipold¹

¹.  FIND, the global diagnostic alliance, Geneva, Switzerland
².  Obafemi Awolowo University, Ile Ife, Nigeria
³.  Peduli Hati Bangsa, Jakarta, Indonesia
⁴.  International Centre for Reproductive Health-Kenya, Mombasa, Kenya
⁵.  Universidad Peruana Cayetano Heredia, Lima, Peru
⁶.  Advanced Access and Delivery, Durban, South Africa
⁷.  LoveYourself Inc., Manila, Philippines
⁸.  Instituto Locomotiva, São Paulo, Brazil
⁹.  IPSOS India, Mumbai, India
¹⁰. University of Lleida, Lleida, Spain

Background

COVID-19 self-testing (C19ST), using SARS-CoV-2 antigen-detection rapid diagnostic tests (Ag-RDTs), offers a convenient, private, and safe option to test that may increase access to testing. Our main research question is to understand the perceptions of C19ST among populations in limited-resource settings.

Methods

A mixed methods observational study was conducted in eight low- and middle-income countries: Brazil, India, Indonesia, Kenya, Nigeria, Peru, Philippines and South Africa. In all countries, a cross-sectional survey was conducted among the general population and health workers. The general population survey included a 35-item standardized questionnaire and the health worker survey included a 45-item standardized questionnaire. Qualitative data collection was conducted using individual interviews (II) and focus group discussions (FGD) with civil society representatives, health workers and potential implementers interested in offering C19ST. Semi-structured interview and discussion guides were used in both IIs and FGDs. Thematic content and framework analysis were conducted focusing on individual views and perceptions regarding four themes: 1) Current access and convenience of facility-based testing for SARS-CoV-2; 2) Values towards C19ST availability; 3) Post-test actions following C19ST; and 4) Preferences for C19ST service delivery. Probabilistic and non-probabilistic purposive sampling techniques were used to approach the general population and health workers, respectively.

Purposive sampling was used to recruit participants for IIs and FGDs and to ensure representation of views from different gender identities and both rural and urban geographies. Ethics approvals was attained in each country from relevant review boards and all participants provided informed consent.
Results

Between July 2021 and January 2022, 6638 individuals from the general population and 2765 health workers completed the survey. The median age of the general population and health worker respondents was 35 (IQR 27-46) and 33 (IQR 28-43), respectively. 43% of the general population respondents and 60% of the health worker respondents self-identified as women. A total of 240 individuals participated in IIs and/or FGDs, including those who completed the survey.

Current testing for SARS-CoV-2: Of the general population respondents who reported previously testing for SARS-CoV-2, 56% indicated that they were unable to access a COVID-19 test at least once. Health workers reported that 25% of the population they attend to at work is never or rarely able to access a SARS-CoV-2 testing when needed. During IIs and FGDs, participants described considerable misinformation, a lack of clear information about SAR-CoV-2, and that the benefits of testing are often not understood. While stigma and discrimination towards those testing positive for SARS-CoV-2 exists, it was reported to be less severe when compared to earlier in the pandemic. Overall challenges with COVID-19 testing access and availability were reported, with cost of tests and fear of forced isolation as the greatest barriers.

Value of C19ST: 77% of general population respondents said they would be likely or very likely to use C19ST if they felt they needed to test for SARS-CoV-2. Willingness varied by country, with greatest willingness in South Africa and least willingness in Brazil (Fig. 1). 76% of health workers said they would be likely or very likely to support C19ST in the general population if the self-tests were available in their country. Willingness varied by country, with greatest willingness in Brazil and least willingness in Indonesia (Fig. 2). Qualitative findings demonstrated that individuals strongly supported availability and use of C19ST. Noted benefits of self-testing included reaching more people, rapid turnaround of results, and reduced burden on health workers and the health system. Some participants had concerns about whether all individuals would be able to self-test, especially members of vulnerable or marginalized groups. However, participants felt these concerns could be managed and mitigated by appropriate programming.

Actionability following C19ST: Nearly all general population survey respondents indicated that following a positive self-test result that they would report the results (90%) and self-isolate (93%). Nearly half (49%) of health worker respondents said they believe most, or all, people would report their results after a positive self-test result. Qualitative participants generally considered that individuals who received a positive self-test result would act in a way that would minimize the spread of SARS-CoV-2 to others. However, as with all testing, gaps in social support remain and can make it difficult for individuals to take key actions following self-testing, such as self-isolation. These risks, however, could be managed and mitigated by appropriate programming and social policy.

Preferences for C19ST service delivery: Willingness to pay for C19ST varied widely among the general population (median: US $ 0.44 in Kenya to US $5.19 in Peru). Qualitative study participants strongly felt that access to C19ST should be equitable and that it was important to have affordable, quality-assured and nationally registered products. Participants felt governments needed to take steps to prevent the availability and use of poor-quality or counterfeit self-tests. Participants felt C19ST should be widely available at a range of outlets, including convenience stores, small shops, and through community organizations. Accompanying C19ST distribution with extensive education was noted as important, as well as inclusion of clear support and messaging on the next steps an individual should take after self-testing. Existing reporting mechanisms should be adapted to allow the reporting of C19ST results.
Conclusion

Results indicate that the general population, health workers, civil society and potential implementers, are supportive of the use of C19ST. Findings were largely consistent, although the overall willingness and level of support for C19ST varied by country.

Figure 1. General population responses to willingness to use C19ST

Figure 2. Health-care worker responses to willingness to support use of C19ST