COVID-19 Self-testing Amongst Healthcare Workers and the General Population in Malawi

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BACKGROUND

- COVID-19 testing is critical for identifying cases to prevent transmission.
- SARS-CoV-2 self-testing has the potential to increase diagnostic testing capacity and to expand access to hard-to-reach areas in low-and-middle-income countries.
- We investigated the feasibility and acceptability of COVID-19 self-sampling and self-testing using SARS-CoV-2 Ag-Rapid Diagnostic Tests in urban Blantyre, Malawi.

METHODS

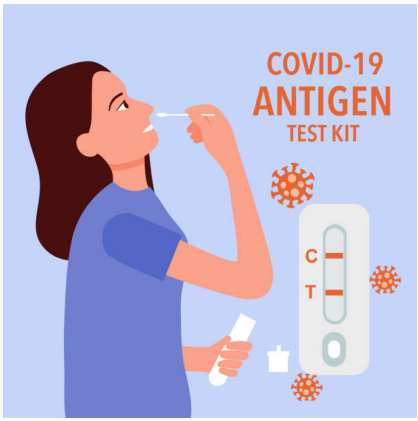
Between July 2021 to February 2022, we conducted a mixed-methods cross-sectional study examining self-sampling and self-testing using Standard Q and Panbio COVID-19 Ag Rapid Test Device in Urban and rural Blantyre, Malawi. Health care workers and adults (18y+) in the general population were systematically sampled.

RESULTS

- Self-testing threshold was 276/335 (82.4%: 95% CI 77.9% to 86.3%) and 300/332 (90.4%: 95% CI 86.7% to 93.3%) for Standard Q and Panbio, respectively.
- Odds of achieving self-sampling threshold increased if the participant was recruited from an urban site (OR 2.15, 95% CI 1.44 to 3.23, P<0.001)
- Participants with higher education had higher self-testing threshold than those with lower (OR 4.05; 95% CI 1.20 to13.63 *P* = .02)

Participants from both rural and urban communities in Malawi can self-test correctly for COVID-19; 82% and 90% of participants were able to self-test for COVID-19 using Standard Q and PanBio test kits, respectively

	Standard Q		PanBio	
	n/N	%	N	%
Met self-sampling threshold[a]	273/333	82.0 (77.4, 86.0)	261/331	78.8 (74.0, 83.1)
Met self-testing threshold	276/335	82.4 (77.9, 86.3)	300/332	90.4 (86.7, 93.3)
Agreement with professional test				
Self-sampling	322/322	100 (99.0, 100.0)	325/325	100.0 (100, 100)
Self-testing	333/333	99.7 (98.0, 100.0)	330/330	100.0 (100, 100)



CONCLUSIONS

- One of the first studies to demonstrate high feasibility of self-testing using SARS-CoV-2 Ag-RDTs in low- and middle-income countries potentially supporting large scale-up

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