

Evaluation of community-based delivery and administration of the SARs-CoV-2 rapid antigen tests in a marketplace in Zambia

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Background: To expand access to testing beyond public health facilities and to strengthen surveillance efforts for COVID-19, community testing using COVID-19 antigen-based Rapid Diagnostic Tests (Ag-RDTs) has been identified as a major area of focus in Zambia. The aim of this research is to gather evidence on the feasibility and acceptability of community testing in a marketplace.

Methods: A cross-sectional study with a mixed-method design was conducted in Mtendere market, a highly trafficked market in Lusaka Province. Participant data was collected prospectively via semi-structured surveys to explore individual satisfaction with testing, service delivery, and experience with self-quarantine for individuals testing positive. Feedback from the healthcare workers on adaptation, challenges, and suggestions were also collected via separate surveys. All data was collected electronically via survey CTO platform and analysed by STATA.

Results: The study population consisted of 1723 participants who voluntarily accessed COVID-19 Ag-RDT at the market testing sites with a positivity rate of 0.6% (n=10). 54% of the participants were male, and the median age was 28 years (IQR 20-39 years). 99% of participants reported no symptoms at time of the test. 59% of respondents indicated desire to know their COVID-19 status as the reason for testing and 32% indicated self-care. 67% and 33% of all respondents found the market testing experience and sample collection “very acceptable” and “acceptable” respectively, with “efficient service and quick turnaround time” addressed as the main satisfaction (43%). 100% of the HCWs that participated in the survey indicated that testing in the marketplace is feasible and acceptable. 50% of the positive cases completed quarantine, while 50% cited work schedules as reason for non-completion.

Conclusion: Community testing is feasible and acceptable intervention to increase testing access in Zambia, especially when coupled with community sensitization, education, and mobilization. This strategy provides an additional testing modality for countries to manage the epidemic.

Disclosure of Interest Statement: The Zambian Ministry of Health and Clinton Health Access Initiative recognise the need for transparency of disclosure of potential conflicts of interest by acknowledging the relationships in publications and presentations, and we confirm that neither of the author is associated with any conflicts of interest for this research.