

# Barriers to Point of Care Testing in India and South Africa

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**Background:** Point of care (POC) testing promises to reduce delays in diagnosing and initiating treatment for diseases such as tuberculosis, HIV, syphilis and malaria. However, the availability of cheap, simple and rapid tests that can be conducted outside laboratories does not automatically ensure successful POC testing. In order to understand the challenges POC testing encounters, we need to study how tests are used at POC and integrated into workflow and patient pathways.

**Methods:** This paper reports on results from a qualitative research project on barriers to POC testing in urban and rural areas in India and South Africa. Using semi-structured interviews (N=101 in South Africa, N=78 in India) and focus group discussions (N=7 in South Africa, N=13 in India) with doctors, nurses, community health workers, patients, laboratory technicians, policymakers, hospital managers and diagnostic manufacturers, we examined diagnostic practices and the challenges in reaching a diagnosis across major diseases and actors in homes, clinics, communities, hospitals and peripheral laboratories. Data analysis was done thematically using qualitative data analysis software. While results per country have been published, this paper discusses selected results comparatively.

**Results:** The specific diagnostic eco-systems of South Africa (largely centralized testing with the exception of HIV screening) and India (largely peripheral testing spread across a multitude of actors) provide different conditions and challenges for POC testing. Patients embody active roles in managing their diagnostic journeys in both countries, albeit in different ways. The various strategies by providers and patients to overcome these challenges are fragile, ad-hoc and unsustainable. They can lead to further delays or poor outcomes.

**Conclusion:** It matters how technologies are used and made to work at POC. The contrasting results from India and South Africa highlight that settings and tests have their own histories, assumptions, and practices inscribed in them. This means that by implementing tests successfully both the setting, including its organization of the workflow, workforce, its infrastructure, interaction with patients and standards, and the tests are being shaped and need to be adapted. The paper concludes by reflecting on how to take such insights into account when designing POC testing programs for TB.