

Increasing access to the MDR-TB surveillance programme through a collaborative model in western Kenya.

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Abstract:

OBJECTIVE: Kenya, like many resource-constrained countries, has a single mycobacterial laboratory, centrally located in Nairobi, with capacity for drug-susceptibility testing (DST) - the gold standard in diagnosing drug-resistant tuberculosis. We describe and evaluate a novel operational design that attempts to overcome diagnostic delivery barriers. **METHODS:** Review of the public DST programme identified several barriers limiting access: lack of programme awareness amongst physicians, limited supplies, unreliable transport and no specimen tracking methods. Staff visited 19 clinic sites in western Kenya and trained healthcare providers in regard to the novel diagnostics model. Provincial laboratory registries were reviewed to assess utilization of DST services prior to and after programme modification. **RESULTS:** Onsite training consisted of the inclusion criteria for re-treatment patients - the high-priority group for DST. Additionally, infrastructural support established a stable supply chain. An existing transport system was adapted to deliver sputum specimens. Task shifting created an accession and tracking system of specimens. During the 24 months post-implementation, the number of re-treatment specimens from the catchment area increased from 9.1 to 23.5 specimens per month. In comparing annual data pre- and post-implementation, the proportion of re-treatment cases receiving DST increased from 24.7% (n = 403) to 32.5% (n = 574) (P < 0.001), and the number of multidrug-resistant (MDR) TB cases increased from 5 to 10 cases. **CONCLUSION:** The delivery model significantly increased the proportion of re-treatment cases receiving DST. Barriers to accessing the national MDR-TB surveillance programme can be overcome through an operational model based on pragmatic use of existing services from multiple partners