

Increasing TB screening, diagnosis, and treatment in a large Zambian correctional facility by integrating TB services into a universal HIV test and treat program

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Background: We conducted an interim impact evaluation of integrating TB services into a universal test and treat (UTT) program within a large Zambian correctional facility.

Methods: Applying RE-AIM, we evaluated reach, effectiveness, adoption, implementation and maintenance of integrated TB/HIV activities using routine and prospective data collected from June—December 2016.

Results:

Reach: During the evaluation period, the total inmate population was 1,849 people, for whom we provided HIV testing services (HTS) to 1,556 (n/N=1,556/1,849, 84.2%), and screened 1,565 for TB using Xpert MTB/RIF (n/N=1,565/1,849, 84.6%).

Effectiveness: Significantly more newly HIV-diagnosed inmates initiated ART in 2016 (n/N=154/188, 81.9%) compared to same 6-month period in 2015 (n/N=50/72, 69.4%) (p=0.03). A similarly high proportion of TB-diagnosed inmates started anti-TB treatment in 2016 (n/N=26/26, 100%) as 2015 (n/N=24/25, 96%) (p=0.3).

Adoption: 35 corrections officers, 8 health workers, and 28 peer educators were trained on HTS, TB screening, and UTT. However, HIV and TB treatment was fragmented by release and transfer procedures uncoordinated with health services, resulting in 41% of inmates receiving UTT being released/transferred during the 6-month period.

Implementation: HTS uptake (84.0%) exceeded our target (75%), and most HIV-diagnosed inmates started ART within 1 day (IQR:1–5), meeting our same-day ART target. Entry TB screening (84.6%) failed to meet our target (100%). Xpert was a satisfactory tool for rapid screening and diagnosis, but required a trained peer educator to operate and purchasing supplementary cartridges to meet demand.

Maintenance: Key obstacles for integrated TB/HIV services remain, including reliance on program support to ensure sufficient commodities to deliver integrated services (e.g. HIV test kits were unavailable 30% of program weeks).

Conclusions: While we achieved high uptake and fidelity of HTS, same-day ART and TB screening, and improved HIV/TB service reach and effectiveness within one large Zambian correctional facility, sustainability may be hampered by ongoing weaknesses in the prison health system.