

The evidence on the Effectiveness of decentralizing HIV and TB health care services in Sub Saharan Africa among HIV/TB patients: A systematic scoping review

Zethu Mamba

Background

Antiretroviral therapy decentralization has been implemented to scale up access to treatment and improve the outcomes of patients with Human Immune Deficiency Virus. Despite this intervention, HIV-associated tuberculosis remains a major public health concern. This scoping review aimed to map evidence on the feasibility of decentralizing HIV and TB healthcare services to improve client outcomes.

Methods

A structured literature search was conducted using relevant bibliographic online databases. The systematic literature search yielded 13 records, including grey literature and records from the bibliographic review of key articles.

Results

Loss to follow-up and mortality outcomes among adult antiretroviral therapy (ART) patients have been reported as outcomes that improved in decentralized services. Five studies reported different decentralization models that measured patient outcomes in South Africa. Task sharing had a significantly higher success rate for MDR-TB treatment. In the DSD model, all participants who had a comparison with standard care reported a slight improvement in viral suppression.

Conclusion

More rigorous research on higher level of evidence pyramid are needed to analyze the impact of decentralization on outcomes compared with attrition, which reflects health progression throughout care.

Figure 1: PRISMA CHART

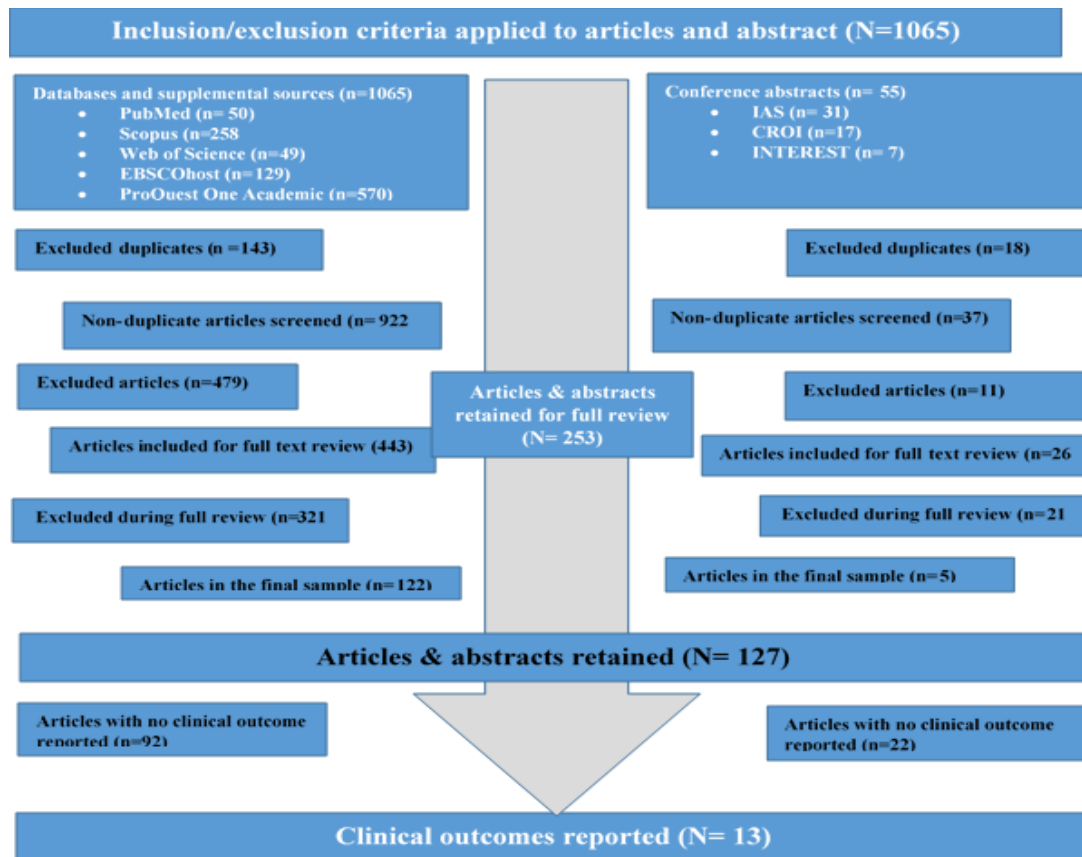


Table 4. Summary of included studies, listed in reverse chronological order

Author & year of public	Study design	Study setting & dates	Population & sample size	Mode of decentralization	Cadre of HCWs at site	Criteria for decentralization eligibility	Outcomes
Long et al, 2020	Systematic review	Sub Saharan Africa	Adults, 29 papers	Differentiated Service Delivery Model	Health worker & client led	Stable & ≥18 years old	Retention, viral load, supervision
Mola et al, 2017	Cross sectional	Ethiopia 2012 – 2015	MDR-TB patients, 790	Ambulatory service delivery model	Health worker	Discharged from a treatment initiating centre	Final TB treatment outcomes
Schnippel et al, 2015	Retro de-identified secondary analysis	South Africa, 2009 - 2013	DR-TB patients, 17 697	Inpatient care	Nurses	Drug-Resistant Tuberculosis patients initiating treatment for	DR treatment outcomes

						rifampicin-resistant TB	
Ayah, 2018	Retrospective review	Nairobi, Kenya 2013	Health facilities providing outpatient ART services, 31	Decentralized treatment sites	Health Care Workers	Patients enrolled on ART and LTFU for the 12 months ending 30th June 2013	Mo folle (LT
Evans et al, 2018	Retrospective cohort study	South Africa, 2012 - 2014	Adult patients diagnosed with laboratory-confirmed RR-TB, 1307	Decentralized outpatient DR-TB centers	Nurses	DR-TB treatment initiation and report time to treatment initiation (TTI) before and after the implementation of Xpert MTB/RIF roll-out	Dru res tub trea out
Farley et al, 2017	Retrospective cohort study	South Africa, 2012 - 2015	MDR-TB patients, 197	Nurse practitioner-physician task-sharing model	Nurses	Final completion of treatment of January 2015	MD trea out
Htet et al, 2019	Retrospective cohort study	Yangon, Myanmar, 2015–2016	People living with HIV, 1,339	ART satellite sites	HIV peer workers	Follow-up HIV Care visits	Ret car PLH
Moudachirou et al, 2020	Retrospective cohort study	Kinshasa, DRC, January 2015 - June 2017.	Adult HIV patients, 337	Transfer to refill centres (" <i>poste de distribution communautaire</i> ", PODI)	PLWHA	Stable human immunodeficiency virus (HIV) patients	Ret car vira sup
Necker et al, 2019	Cohort model	Kenya	Non-pregnant adults (15 years and older), pregnant women and children (0 to 14 years)	Decentralized viral load testing	Laboratory technician	6 months on antiretroviral treatment	Vira opp infe dev
Rawat et al, 2018	Cross sectional survey	Free State Province, 2012-2013	Patients and caregivers at 4	HIV care integrated into primary health care	Nurses	Patients initiated on ART at the PHC clinic and receive follow-up care.	Qu Car Sat with

			integration clinics, 910				
Rensburg et al, 2019	Prospective observational cohort study	South Africa, 2011	Outpatient RR/ MDR-TB patients, 124 patients	Decentralized care	Health workers	Patients referred from an inpatient ward or one of the primary health clinics in the hospital's catchment area.	Tre out
Tsui et al, 2017	Cross sectional design	Tanzania, Uganda, and Zambia (2008 – 2012)	Adult patients on ART, 19 diverse ART clinics	ART task-shifting/ task-sharing service delivery models	Clinical officers, nurses, lay health workers	On ART for at least 6 months	Adf and rete
Zingoni et al, 2020	Retrospective cohort study.	Zimbabwe, 2004 - 2017	ART Adults 15+ years, 390 771	Decentralized health services	Health care workers	Patients aged 15+ years who initiated ART between 1 January 2004 and 31 December 2017	Los folle