

## Evidence Assessment: Summary of a Systematic Review

### Who is this summary for?

Administrators and managers of health facilities, Community Health Workers and the partners involved in the management of people living with HIV.

## Decentralising HIV treatment in lower- and middle-income countries

### Key findings

- When antiretroviral therapy (ART) was started at a hospital and continued in a health centre (partial decentralisation), there was probably less attrition and fewer patients were lost to care after one year.
- Where ART was started and continued at a health centre (full decentralisation), there was probably no difference in the number of deaths and patients lost to follow-up (attrition), but overall, there were probably fewer patients lost to care after one year.
- When ART was provided in the community, by trained volunteers, there was no difference detected in death or losses to care when compared to care provided at a health centre after one year.

### Background

Many people living with HIV who need ART are unable to access or remain in care. This is often because of the time and cost required to travel to health centres. One approach to facilitating access and retention in care is to provide ART close to people's homes, 'decentralising' treatment from hospitals to health centres or even to the community.

### Question

What is the effect of decentralised HIV care in relation to initiation and maintenance of ART?

**Decentralising HIV treatment in Cameroon:** The prevalence of HIV in Cameroon is 4.3%. The introduction of ART has been a gradual process since 1997. At the end of 2013, 168 accredited treatment centre and management care units were operational for the dispensing antiretroviral therapy to 131531 patients in 10 Regions.

**Table 1: Summary of the systematic review**

	<b>What the review authors searched for</b>	<b>What the review authors found</b>
<b>Studies</b>	Randomised controlled trial, non-randomised and controlled before-and-after studies and cohort studies.	Sixteen studies met the inclusion criteria, 2 where cluster randomised controlled trials, two where prospective cohorts and 12 where retrospective cohort studies.
<b>Participants</b>	HIV-infected patients at the point of initiating treatment, and patients already on treatment requiring maintenance and follow-up.	HIV-infected patients at the point of initiating treatment, and patients already on treatment requiring maintenance and follow-up.
<b>Interventions</b>	Any form of decentralised care delivery model for the initiation of treatment, continuation of treatment, or both. Decentralisation is defined as the provision of treatment at a more basic level in the health system than the centralised site.	All studies evaluated decentralisation of care from hospital level to more basic levels of care. Eight studies included task shifting from doctors to non-doctors (either nurses or clinical officers). Three studies examined treatment in children only, two included adults and children and the rest included adults only. One study compared treatment at tertiary and secondary hospital care.
<b>Controls</b>	Care delivered at the centralised site (usually a hospital, or in the case of community interventions, any facility)	Care delivered at the centralised site (usually a hospital, or in the case of community interventions, any facility)
<b>Outcomes</b>	<p><b>Primary outcomes</b></p> <ul style="list-style-type: none"> <li>• Attrition, defined as a composite of loss to follow-up or death;</li> <li>• Loss to follow-up at set time points after the intervention has been introduced, as defined by the study authors;</li> <li>• Death, after being considered eligible for treatment, or during treatment.</li> </ul> <p><b>Secondary outcomes</b></p> <ul style="list-style-type: none"> <li>• Time to starting antiretroviral treatment;</li> <li>• Patients diagnosed with tuberculosis after entry into HIV care;</li> <li>• Virologic response to ART (the proportion of participants that reach or maintain a pre-defined level of viral load suppression, as defined by the study authors);</li> <li>• Immunologic response to ART (mean change in the concentration of CD4+ lymphocytes from baseline, as expressed in cells/mm<sup>3</sup>);</li> <li>• Occurrence of a new AIDS-defining illness;</li> <li>• Patient satisfaction with care, as defined by the study authors;</li> <li>• Cost to the provider.</li> </ul>	<p>The outcomes reported were:</p> <ul style="list-style-type: none"> <li>• Mortality;</li> <li>• Morbidity;</li> <li>• Attrition (death or lost to care);</li> <li>• Lost to care;</li> <li>• Viral load suppression;</li> <li>• Cost to providers and patients;</li> <li>• Initiation of tuberculosis treatment, time to initiation of antiretroviral treatment, new AIDS defining illness, any negative impact on the health delivery;</li> <li>• Patient satisfaction with care;</li> <li>• Immunological changes - CD4+ cell count.</li> </ul>
<b>Date of the most recent search:</b> 26 May 2013		
<b>Limitations:</b> This is a moderate quality systematic review, <b>AMSTAR =08/11</b>		
<b>Citation:</b> Kredo T, Ford N, Adeniyi FB, Garner P. <b>Decentralising HIV treatment in lower- and middle-income countries.</b> CochraneDatabase of Systematic Reviews 2013, Issue 6. Art. No.: CD009987. DOI: 10.1002/14651858.CD009987.pub2.		

## Table 2: Summary of findings

<b>Antiretroviral therapy initiated in a hospital, maintained at a health centre for HIV infected patients</b>			
<b>Patient or population:</b> HIV infected patients			
<b>Settings:</b> Lower- and middle-income countries			
<b>Intervention:</b> Antiretroviral therapy initiated in a hospital, maintained at a health centre			
<b>Outcomes</b>	<b>Relative effect (95% CI)</b>	<b>No of Participants (studies)</b>	<b>Quality of the evidence (GRADE)</b>
<b>Death or lost to care</b> Follow-up: 12 months	0.46 [0.29-0.71]	39090 (4)	Moderate
<b>Lost to care</b> Follow-up: 12 months	0.55 [0.45-0.69]	39090 (4)	Low
<b>Death</b> Follow-up: 12 months	0.34 [0.13-0.87]	39090 (4)	Low
<b>Antiretroviral therapy be started and maintained in health centre for HIV infected patient</b>			
<b>Patient or population:</b> HIV infected patients			
<b>Settings:</b> Lower- and middle-income countries			
<b>Intervention:</b> Antiretroviral therapy be started and maintained in health centre			
<b>Death or lost to care</b> Follow-up: 12 months	0.7 [0.47-1.02]	56360 (4)	Very low
<b>Lost to care</b> Follow-up: 12 months	0.3 [0.17-0.54]	56360 (4)	Moderate
<b>Death</b> Follow-up: 12 months	1.1 [0.63-1.92]	55099 (4)	Very low
<b>Decentralisation from the facility to the community for antiretroviral maintenance therapy for HIV-infected patients</b>			
<b>Patient or population:</b> HIV-infected patients			
<b>Settings:</b> Lower- and middle-income countries			
<b>Intervention:</b> Decentralisation from the facility to the community for antiretroviral maintenance therapy			
<b>Death or lost to care</b> Follow-up: 12 months	0.95 [0.62-1.46]	709 (2)	Moderate
<b>Lost to care</b> Follow-up: 12 months	0.81 [0.3-2.21]	709 (2)	Moderate
<b>Death</b> Follow-up: 12 months	1.03 [0.64-1.65]	709 (2)	Moderate

### Applicability

Three of the sixteen studies were conducted in Malawi, two studies in Ethiopia, two in Uganda, one in Kenya, one in Swaziland, four in South Africa. One study examined data from Kenya, Lesotho, Mozambique, Rwanda and Tanzania; and from Thailand. Decentralisation of antiretroviral therapy care delivery may be applied in other low resources settings.

### Conclusions

Decentralisation of HIV care aims to improve patient access and retention in care. Fewer patients are lost to care when they are continued on antiretroviral therapy at health centres rather than in hospitals. This intervention should include training and supervision.

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