

Comparison of treatment outcomes of adult HIV-positive migrants in Australia and Canada: A systematic synthesis

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The problem of no universal access to ART in Australia

- ▶ Late diagnosis for migrants: Sub-Saharan African (43%) and South-East Asian (40%)
- ▶ Access to ART for temporary residents:
 - ▶ Online pharmacies
 - ▶ Compassionate scheme
 - ▶ Personal importation scheme
 - ▶ Clinical trials
 - ▶ Reciprocal healthcare agreement
- ▶ How do Australian results compare to those of another country with universal access of ART?

The Kirby Institute, 2016

Matrix-based approach in evidence synthesis

“The promotion of typologies rather than hierarchies may be more useful than hierarchies in conceptualising the strengths and weaknesses of different methodological approaches.”

Petticrew & Roberts, 2003

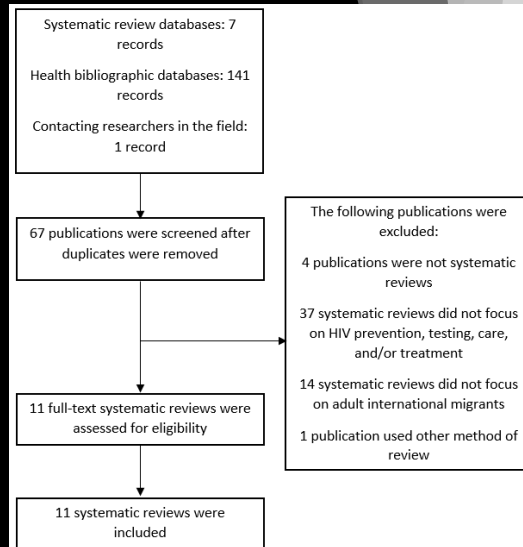
Research questions

- ▶ Systematic reviews on HIV in global migrant populations: what is known about their aims, target populations, and methods of analysis?
- ▶ Primary studies*: what is the evidence of viral suppression in HIV-positive migrants in Australia and Canada?
- ▶ Primary studies*: what is the evidence of AIDS-developing illnesses and/or AIDS-related death in HIV-positive migrants in Australia and Canada?

*1996 - 2017

Phase I (Methods)- Overview of Systematic Reviews

- ▶ SR databases (n= 3)
- ▶ Health bibliographic databases (n = 5)



Phase I (Results) - Overview of Systematic Reviews

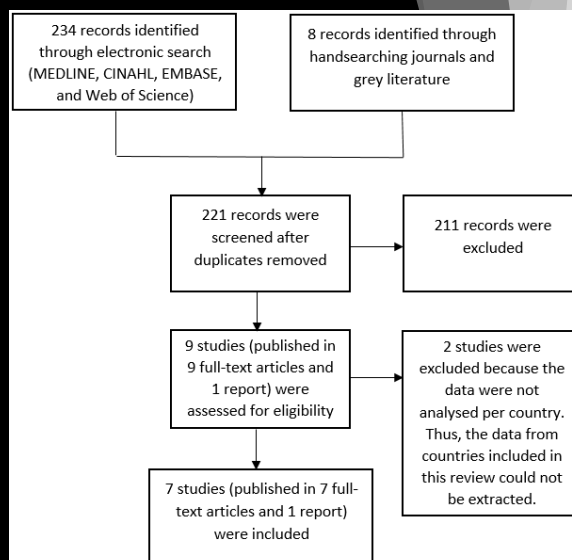
- ▶ 11 SR: 2012 to 2016
- ▶ Health Evidence - Critical Appraisal Tool: Strong (2), Moderate (7), and Weak (2)
- ▶ Setting: Global migrants (4), Europe (2), US (2), high-income countries (2), and middle- and low-income countries (1)
- ▶ Aim: HIV prevention (7), testing (2), treatment (1), and care and treatment (1)
- ▶ Analysis method: Narrative synthesis (9), meta-analysis (1)

Phase I (Results) - Overview of Systematic Reviews

- ▶ *What is the overview of SR telling us?*
 - ▶ It is difficult to separate temporary residents, permanent residents, and ethnic minorities
 - ▶ Methods in the primary studies vary → the use of narrative synthesis

Phase II (Methods)- Review of Primary Studies

- ▶ Databases (n = 4)
- ▶ Journals (n = 4)
- ▶ Grey literature (n = 9)

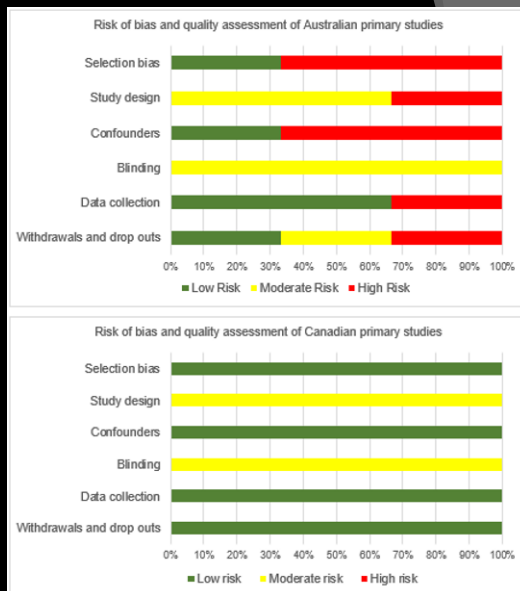


Phase II (Results) - Review of Primary Studies

- ▶ 7 studies: 2009 - 2015
- ▶ Canada (n = 4; participants = 1775) and Australia (n = 3; participants = 746)
- ▶ Canada: universal access of ART
- ▶ Australia: no universal access of ART

Phase II (Results)- Review of Primary Studies

- ▶ Risk of bias and quality assessment (EPHPP tool)



Finding 1: Migrants in both Australia and Canada have similar treatment outcomes with non-migrants

- ▶ 5 studies: Australia (3) & Canada (2)
- ▶ Australia*: Time to achieve viral suppression are similar between Australian-born patients, HIC migrants, and LMIC migrants (hazard ratio 1 vs 0.99 vs 0.86, 95% CI (0.68 - 1.08), $p = 0.41$)
- ▶ Canada**: Migrants had lower mortality rates compared to white Canadians and First Nations with only 8 AIDS-related deaths (6%, 95% CI (3.0 - 11.9))
- ▶ ATRAS confirmed suboptimal access for HIV-positive temporary residents in Australia

*Tilley, et al., 2015; **del Amo, et al., 2013

Finding 2: Sub-Saharan African HIV-positive migrants are prone to developing AIDS-defining illnesses

- ▶ 2 studies: Canada (1) and Australia (1)
- ▶ Australia*: 9 of 20 patients developed AIDS-defining illnesses
- ▶ Canada**: Sub-Saharan African immigrants were more likely to first develop AIDS-defining illnesses (hazard ratio 0.292, 95% CI (0.102 - 0.840), $p = 0.022$) compared to Haitian immigrants (hazard ratio 0.640, 95% CI (0.223 - 1.833), $p = 0.406$)

*Lemoh, et al., 2010; **Keller, et al., 2009

Finding 3: A “healthy migrants effect” might explain the Canadian treatment outcomes

- ▶ Analysis of findings from 2 Canadian studies
- ▶ “... mortality rates following initiation of ART in HIV-positive migrants and established ethnic minorities in Europe and North America differ from those in predominantly white nonmigrants. The former have better survival, probably reflecting healthy migrant effects, whereas the latter fare worse, reflecting health and societal inequality.”

del Amo, et al., 2013

Key Messages

- ▶ Migrants in Australia and Canada have similar treatment outcomes with non-migrants. But, Australian studies are at high risk of bias
- ▶ Implication for future research: examine time to ART initiation for HIV-positive temporary residents
- ▶ Implication for policy making: progress MDH 2014 agreement on subsidised treatment for HIV-positive temporary residents in Australia

Disclosure of Interest

No conflict of interest.

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