

eHealth Interventions for HIV Prevention and Management in Sub-Saharan Africa

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Background

- Around 70% of global HIV diagnoses are in Sub-Saharan Africa
- Despite recent medical advances, HIV is still the leading cause of death in the region
- eHealth interventions are effective for HIV prevention and management, but it is unclear whether this is true of resource-poor settings
- **Aim:** to determine the effectiveness of eHealth interventions for HIV prevention and management in Sub-Saharan Africa

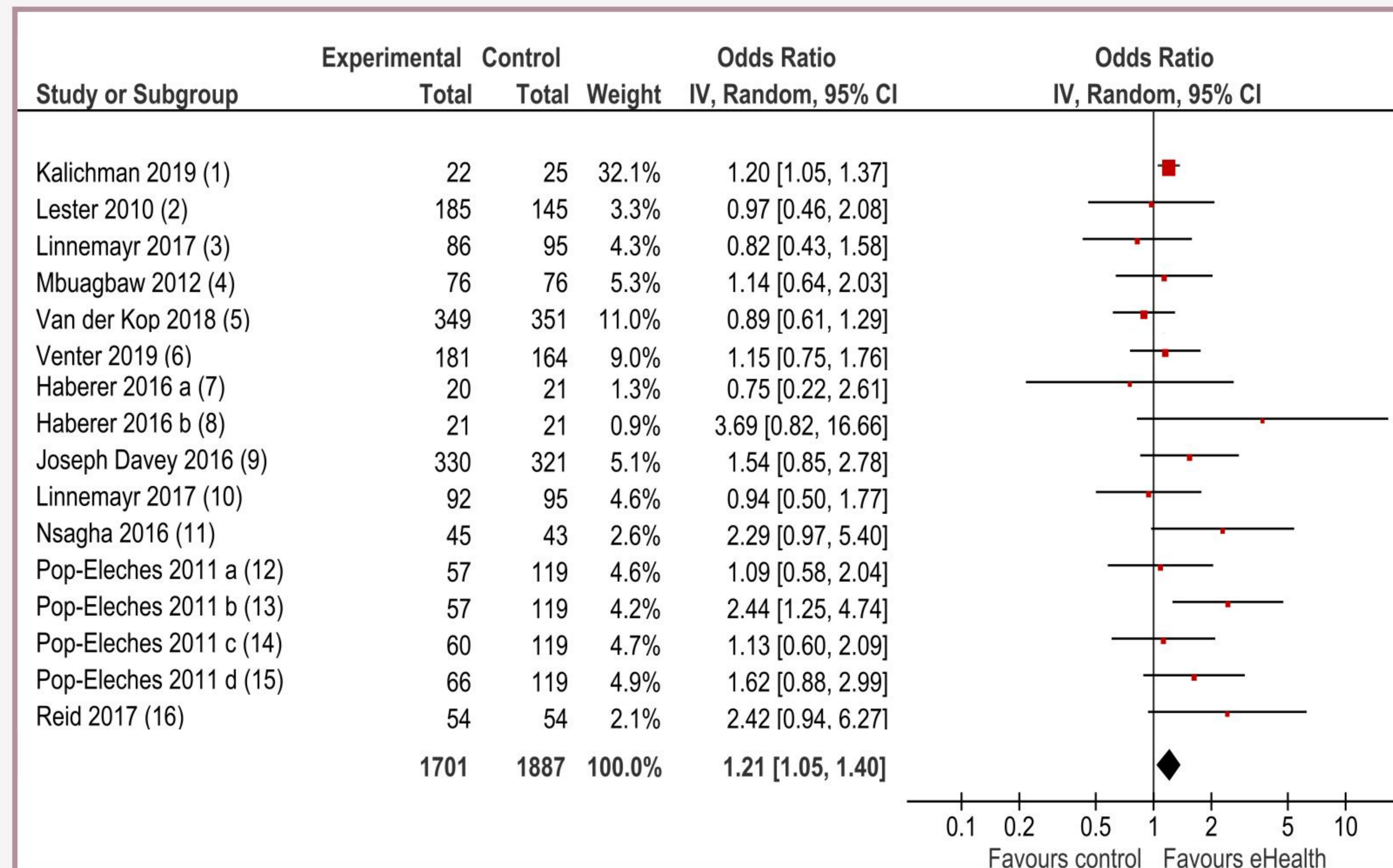
Methods

Systematic review of randomised controlled trials

- **Study selection:** RCTs conducted in Sub-Saharan Africa, comparing eHealth interventions for HIV prevention or management in comparison with minimal interventions (control)
- **Data analysis:** meta-analyses: data pooled using random-effects models
- 4,210 citations were screened, and the full texts of 95 potentially eligible papers

Results

- 25 RCTs of eHealth interventions in 10 Sub-Saharan African countries were included (8 Kenya, 7 Uganda, 5 South Africa). Participants were HIV positive in 13 studies.
- eHealth interventions included smartphone games, internet-based programmes, educational text messages
- The odds of engaging in behaviours for **HIV management** (e.g., adherence to ART and retention in HIV care) were **21% higher** among those in the intervention group compared with control (p=0.008)



Forest plot: Impact of eHealth interventions on HIV management behaviours

- eHealth interventions had **positive effects on HIV-related knowledge and behavioural intentions**
- We found **no difference in the odds of engaging in HIV prevention behaviours and no impact on biological outcomes**

Conclusions

- eHealth interventions in Sub-Saharan Africa increased HIV management behaviours but did not significantly impact HIV prevention behaviours
- There was no detectable impact on HIV-related biological outcomes
- This review provides good evidence supporting the implementation of eHealth interventions for HIV management behaviours in Sub-Saharan Africa

Implications

- eHealth interventions for improving adherence to ART and retention in HIV care could reduce the likelihood of transmitting HIV to others, and reduce HIV-related morbidity and mortality
- Since healthcare systems across Sub-Saharan Africa face challenges with scarce resources, **low-cost eHealth strategies have huge potential to improve HIV-related outcomes** across the region