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### **Executive summary**

Could HIV self-testing increase HIV counselling and testing uptake among  
South African youth? - A literature review on acceptability of HIV self-testing  
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**Background:** Although many new HIV infections in the hyperendemic context of South Africa occur during adolescence and prevalence among youth is on the rise in rural provinces (Shisana et al., 2009), many young South Africans do not test for HIV (Venkatesh et al., 2011; Peltzer et al., 2009). Major reasons deterring youth from testing are fear of stigmatisation, discrimination and breach of confidentiality at public testing sites (Goergen, 2010). Being highly confidential and private, HIV self-testing (HST) seems to be an acceptable testing strategy for other at-risk groups that do not use public testing sites (Belza et al., 2012; MiraTes Europe BV, 2008; Spielberg et al., 2001, 2003a, 2005; Branson, 1998) and could as well increase HIV counselling and testing (HCT) uptake among South African youth. Yet, more research on HST, not only its acceptability, but also its challenges as feasibility in terms of accuracy, linkage to counselling and follow-up care and its cost-effectiveness (Grispen et al., 2011; Walensky and Bassett, 2011); is needed before HST services can become a reality for South African youth.

**Methods:** We performed a literature review on acceptability of HST among at-risk groups and included studies, in which HST has been provided to study participants and an acceptability rate has been provided. Additionally, we developed a qualitative research proposal in cooperation with loveLife, South Africa's largest HIV/AIDS prevention initiative for youth, for a future study on acceptability of HST among youth.

**Results:** Six studies met our inclusion criteria and demonstrated universally high acceptability of HST (80%) among study populations like the general population in high prevalence settings in Malawi (Choko et al., 2011) and a socioeconomically disadvantaged district in the U.S.A (Gaydos et al., 2011), health care workers in Kenya (Kalibala et al., 2011) and high-risk groups like MSM, IDU and women at high heterosexual risk in the USA (Spielberg et al.,

2000) and Singapore (Lee et al., 2007). Participants appreciated confidentiality and privacy of HST. The majority (82%) was able to perform HST accurately with no or little support from trained staff. One study indicated high disclosure and partner testing rates through HST. Major emerging challenges were the organisation of adequate counselling services and linkage to care. No study investigated referral to follow-up care and, further, no study investigated acceptability among youth.

A future qualitative study with loveLife shall include focus group discussions with adolescent peer educators and questionnaires with adolescent clients of the loveLife Call Centre. Attitudes of, on the one hand very knowledgeable peer educators and, on the other hand less informed Call Centre clients will be compared and shall provide valuable insight whether and how to introduce an HST service for youth. Specific objectives of the study shall be to assess proportions of peer educators and Call Centre clients, who are willing to use HST, and to identify necessary and acceptable components of HST services and operational, ethical and psychological factors that have to be considered before HST is investigated in a clinical trial.

**Conclusion:** HST is an acceptable testing alternative for at-risk groups from developing and developed countries and can be performed accurately by the majority of self-testers. Linkage to adequate counselling and medical referral remain major challenges. Rather low quality and high heterogeneity of included studies, and moreover, high levels of HIV testing experience within study populations limit usefulness of our review for considering setting up an HST service for South African youth. A future qualitative study on acceptability of HST among youth is of interest to loveLife, but can only function as a pilot investigation. Just a clinical trial will finally be able to determine the extent to which HST could increase HCT uptake among South African youth.