

HIV, HEPATITIS, AND SYPHILIS SELF-TESTING AMONG ADOLESCENTS AND YOUNG PEOPLE: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Background:

Adolescents and young people make up a disproportionate share of the world's HIV and sexually transmitted infections (STI). Self-testing can increase testing coverage and strengthen the uptake of HIV/STI prevention and treatment services. We aimed to critically appraise the literature regarding HIV, hepatitis, and syphilis self-testing among adolescents and young people (age 10–24 years, based on WHO definition), and assess its acceptability, feasibility, usability, and cost-effectiveness.

Methods:

We conducted a systematic review, searching six databases between January 2010 and October 2023. We included all studies on HIV, hepatitis and syphilis self-testing in adolescents and young people. A random-effects meta-analysis was used to summarise the uptake, proportion of first-time testers and linkage to care. Qualitative data were narratively synthesised.

Results:

We identified 104 relevant studies, of which 98 were on HIV, four on hepatitis and two on syphilis self-testing. Among these, 46 studies were included in the meta-analysis. Most studies were conducted in the African region ($n=33/46, 72\%$) and lower-middle-income countries ($n=17/46, 37\%$). Approximately 90% (95% confidence interval (CI): 82–96%, $I^2=99\%$) of adolescents who were offered any of the three types of self-test completed the test. Around 78% (95% CI: 26–100%, $I^2=98\%$) of adolescent self-testers reporting reactive result subsequently linked to further testing and onward care as needed. In general, there was high acceptability and usability among adolescents and young people towards self-testing. Adolescents aged 10–14 preferred receiving a self-test kit with pre-test counselling or assisted video/audio instructions from a healthcare worker. Most individuals aged 15–24 liked the confidentiality, convenience and non-invasiveness of self-test. They also found self-testing easy to perform without assistance and were confident of interpreting the results by themselves.

Conclusion:

Self-testing is a safe, effective and accessible way to increase HIV, hepatitis and syphilis testing in adolescents and young people. Efforts to ensure access to self-testing for this population should be prioritized across disease areas to maximise public health impact.

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