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HIV testing: the 'front door' to the UNAIDS 90–90–90 target

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The benefits of early antiretroviral therapy (ART) for the individual and society are well-established.[1,2] A necessary first step to realising these benefits is human immunodeficiency virus (HIV) status awareness, followed by accessing and maintaining HIV treatment. The ambitious target of UNAIDS and the World Health Organization is for 90% of people living with HIV knowing their status, 90% of HIV-positive people on ART and 90% of people on ART virally suppressed.[3] However, in sub-Saharan Africa, among men and young people in particular, HIV testing rates are modest, ART uptake limited and subsequently poor virological suppression is common.[4]

In this issue of *Public Health Issue*, to improve HIV testing rates, Geoffroy and colleagues examined the effectiveness of door-to-door HIV testing in reaching youth and men in 57 villages in rural Malawi, with an average of 284 individuals per village enumerated for the study.[5] Of 16 200 enumerated, 15 401 (95%) individuals aged ⩾2 years were eligible for HIV testing, of whom 13 783 (90%) accepted, with similar numbers across all age groups. The overall testing rate was 85% (90% of 95%), or 90% of those seen in the home. More men than women were testing for the first time (77% vs. 59%); 65% of those who tested were aged <24 years. Overall HIV prevalence was 4%, higher in females than males (5% vs. 2%), with a steep increase in prevalence in individuals aged >25 years.

Men were more difficult to reach than women, similar to experience in other settings,[6] which could have been due to testing activities being restricted to the hours of 10 am–3 pm on weekdays. About 800 people were enumerated but not offered testing, nearly 1400 were unreachable and 215 refused; it is unknown whether these 15% would be more or less likely to be HIV-infected. It was also difficult to establish the number of individuals in villages not reached by the intervention where households were not enumerated, and the average population per household could thus not be estimated. Mulanje, where the study took place, has a population of 670 000, an average of 1160 individuals per village, substantially higher than in the study. Nevertheless, findings here are in line with experience elsewhere showing that community HIV testing approaches are known to reach hard-to-find groups such as men and young individuals, with the added advantage of earlier HIV diagnosis.[7]

In many parts of sub-Saharan Africa, HIV testing has remained largely facility-based, with community testing promoted by non-governmental organisations as part of implementation research. Poor HIV testing uptake would make it difficult to achieve the 73% (90% of 90% of 90%) target of all HIV-positive individuals being virally suppressed by 2020,[3] and systemic factors that affect one step of the cascade are likely to affect the other steps as well, as linkage to care has proved to be even more of a challenge than HIV testing.[8]

To achieve and sustain high HIV testing rates, especially for men and young people, combination HIV testing that incorporates facility-based HIV testing, work-place testing, community testing and self-testing should become part of routine HIV testing services supported by government HIV programmes. However, this needs to be followed by improving community-based linkage to care.

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