

Inequalities in uptake of HIV testing despite scale-up



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HIV testing is an essential aspect of HIV prevention and treatment services. Since 2008, large-scale initiatives have aimed to increase access to, and uptake of, HIV testing in untested populations at risk. Strategies have included provider-initiated HIV testing and counselling,¹ community-based approaches,² and partner notification.³ Sub-Saharan Africa, the region worst affected by the HIV epidemic,⁴ is also the region most in need of these initiatives. Similar to findings for other health interventions,^{5,6} inequalities in uptake of HIV testing have been recorded,⁷ and these inequalities might persist despite intensification of HIV testing efforts and scale-up of treatment.⁸

In *The Lancet Global Health*, Pearl Anne Ante-Testard and colleagues⁹ use data from serial Demographic and Health Surveys in 16 sub-Saharan African countries to assess temporal trends in socioeconomic inequalities among people who reported undergoing HIV testing in the previous 12 months. They compared the proportion of people who had been tested for HIV during the previous 12 months among the wealthiest and poorest participants in both relative and absolute terms (with the relative index of inequality [RII] and slope index of inequality [SII], respectively). For each included country, the authors compared periods before and after the global scale-up of HIV testing (marked as the introduction of provider-initiated HIV testing and counselling), with 2008 as the cutoff year. They also did random-effects meta-analyses of mean inequalities per survey period (ie, before vs after 2008) and measured inequalities based on educational attainment. All analyses were stratified by sex, with subgroup analyses done among people aged 15–24 years. Ante-Testard and colleagues' work provides both multicountry trends in HIV testing uptake by socioeconomic status and pooled estimates of testing across countries by socioeconomic status. These data are important for assessment of the success of programmes in reducing the effects of inequalities as HIV testing is intensified.

The authors clearly show that the poorest (or the least educated) people were less likely to have been tested for HIV in the past 12 months compared with the wealthiest (or most educated) people. Although notable improvements were made in uptake after the scale-up

of HIV testing (and antiretroviral therapy), substantial inequalities persisted. Among female participants the overall RII was 9.8 (95% CI 4.2–22.6) before 2008 and 2.8 (1.4–5.4) after 2008. Among male participants, the corresponding RIIs were 7.3 (4.1–13.1) and 3.6 (1.9–6.8). Relative inequalities were thus more pronounced among male participants than among female participants in the post-2008 period. Absolute differences plateaued in female participants and increased in male participants. Geographical differences were noted: reductions in both relative and absolute inequality were recorded in Malawi, Rwanda, Zambia, and Zimbabwe, whereas increases in inequality were noted in some western and central African countries after 2008. Except for in Zimbabwe and Lesotho, testing during the previous 12 months was reported more frequently in urban than in rural communities.

Inequality in access to HIV testing is relevant from not only a human rights perspective but also an epidemic control perspective, particularly if the people who do not get tested are at higher risk of HIV infection. HIV programmes therefore need to carefully review who is being reached by their services and to implement interventions specifically tailored to engage people who might be missed. Inequalities can differ by setting or service.⁵ Ante-Testard and colleagues focused on inequalities by wealth and education status, but inequalities related to age, sex,¹⁰ and religion¹¹ have been reported elsewhere. Future research should explore cross-country trends in inequalities at other points on the treatment and prevention cascades—eg, initiation of antiretroviral therapy and achievement of viral suppression.

Ante-Testard and colleagues used data up to 2016, and thus their findings might not take into account changes resulting from accelerated scale-up, particularly as countries gear up to meet the 90-90-90 targets.⁸ Review of UNAIDS's 2019 Global AIDS update, however, shows that the authors' findings are in line with reported trends: although there has been global improvement in the uptake of HIV testing, differences in programme successes by geography have been noted in much the same way as Ante-Testard and colleagues reported, with superior outcomes in eastern and southern Africa than in western and central Africa.⁴

Importantly, the 2019 Global AIDS update emphasised that investment in HIV response is a key factor in programme success: in eastern and southern Africa, expenditure per person living with HIV was in line with resource needs (which could explain programme success even in remote or rural settings), whereas in western and central Africa only 48% of what is needed by 2020 was available.⁴ Mobilisation of adequate resources for the HIV response is therefore crucial for programme success and corresponding reductions in inequality.

In summary, Ante-Testard and colleagues show that socioeconomic inequalities in HIV testing uptake have persisted despite massive scale-up of HIV testing, and this unequal access could undermine epidemic control. Global estimates might mask inequality, and it is important for programmes to assess and report inequality, bearing in mind that factors other than wealth and education status could drive it. Adequate resources need to be channelled towards implementation of HIV control programmes that leave no one behind.

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- 1 WHO. Guidance on provider-initiated HIV testing and counselling in health facilities. Geneva: World Health Organisation, 2007.
- 2 Perriat D, Balzer L, Hayes R, et al. Comparative assessment of five trials of universal HIV testing and treatment in sub-Saharan Africa. *J Int AIDS Soc* 2018; **21**: 1.
- 3 WHO. Guidelines on HIV self-testing and partner notification: supplement to consolidated guidelines on HIV testing services. Geneva: World Health Organization, 2016.
- 4 UNAIDS. Global AIDS update 2019: communities at the centre. Geneva: Joint United Nations Programme on HIV/AIDS, 2019.
- 5 Sully EA, Biddlecom AS, Darroch JE. Not all inequalities are equal: differences in coverage across the continuum of reproductive health services. *BMJ Global Health* 2019; **4**: e001695.
- 6 Niessen LW, Mohan D, Akuoku JK, et al. Tackling socioeconomic inequalities and non-communicable diseases in low-income and middle-income countries under the Sustainable Development agenda. *Lancet* 2018; **391**: 2036–46.
- 7 Cremin I, Cauchemez S, Garnett GP, Gregson S. Patterns of uptake of HIV testing in sub-Saharan Africa in the pre-treatment era. *Trop Med Int Health* 2012; **17**: e26–37.
- 8 UNAIDS. 90-90-90: an ambitious treatment target to help end the AIDS epidemic. Geneva: Joint United Nations Programme on HIV/AIDS, 2014.
- 9 Ante-Testard PA, Benmarhnia T, Bekelync A, et al. Temporal trends in socioeconomic inequalities in HIV testing: an analysis of cross-sectional surveys from 16 sub-Saharan African countries. *Lancet Glob Health* 2020; **8**: e808–18.
- 10 Zimbabwe Ministry of Health and Child Care. Zimbabwe population-based HIV impact assessment (ZIMPHIA). Harare: Ministry of Health and Child Care, 2016.
- 11 Ha W, Salama P, Gwavuya S, Kanjala C. Is religion the forgotten variable in maternal and child health? Evidence from Zimbabwe. *Soc Sci Med* 2014; **118**: 80–88.