A cautious note on household surveys in poor settings
Janssens, W.; de Beer, I.; Coutinho, H.M.; van Rooy, G.; van der Gaag, J.; Rinke de Wit, T.F.

Published in:
BMJ : British medical journal

DOI:
10.1136/bmj.c6323

Citation for published version (APA):

General rights
It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations
If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: http://uba.uva.nl/en/contact, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.
ESTIMATING HIV PREVALENCE

A cautious note on household surveys in poor settings

The World Health Organization’s HIV prevalence estimates have recently been adjusted downwards, mostly because of new data from population based surveys.1 But such surveys are limited by surveyor bias—they are typically performed on large numbers of respondents by small numbers of surveyors—and this could disproportionately influence (worldwide) HIV prevalence estimates.

In 2007 a population based household survey in a sub-Saharan country randomly assigned eight trained nurses to perform medical interviews and collect oral fluid samples for anonymous HIV testing on 2452 people. The estimated HIV prevalence was 12.7%.

The figure shows weekly HIV positivity estimates collected during the survey, stratified by nurse. HIV positivity in samples obtained by one nurse (“H”) increased to more than 80% during the second phase of the survey. No significant differences were found in age, sex, education, income, marital status, or household demographics of respondents visited by nurse “H” compared with the other nurses. The areas assigned to nurse “H” were identical to those assessed by three other nurses, none of whom showed similar results. When all 313 respondents sampled by nurse “H” were excluded, HIV prevalence dropped from 12.7% (95% CI 11.4 to 14.0) to 9.6% (7.3 to 11.8).

If one nurse in 10 produced 50% false positive results, estimated HIV prevalence would be 1.2, 1.5, or 2.6 times higher than it should be in 15%, 6%, or 2% HIV prevalence settings, respectively.3 Retrospective analyses of household survey data are recommended to avoid basing HIV global needs assessments on flawed prevalence rates.2

Wendy Janssens research fellow, Amsterdam Institute for International Development, 1105 BM Amsterdam, Netherlands wjanssens@feweb.vu.nl

Ingrid de Beer general manager, PharmAccess Foundation Namibia, First Floor Angola House, Windhoek, Namibia

Hannah M Coutinho medical officer, PharmAccess Foundation, 1105 BM Amsterdam, Netherlands

Gert van Rooy research fellow, Multidisciplinary Research and Consultancy Centre (MRCC), University of Namibia, Windhoek, Namibia

Jacques van der Gaag director, senior fellow, Amsterdam Institute for International Development, 1105 BM Amsterdam, Netherlands and Brookings Institution, Washington, DC 20036, USA

Tobias F Rinke de Wit director, advocacy, technology and research, PharmAccess Foundation, 1105 BM Amsterdam, Netherlands

Competing interests: None declared.

A longer version of this note is posted on www.pharmaccess.org and www.aid.org.


Cite this as: BMJ 2010;341:c6323