Self-sampling kits to increase HIV testing among black Africans in the UK: the HAUS mixed-methods study

Maureen Seguin,¹ Catherine Dodds,² Esther Mugweni,¹ Lisa McDaid,³ Paul Flowers,⁴ Sonali Wayal,¹ Ella Zomer,⁵ Peter Weatherburn,² Ibidun Fakoya,¹ Thomas Hartney,⁶ Lorraine McDonagh,⁶ Rachael Hunter,⁵ Ingrid Young,⁷ Shabana Khan,⁸ Nick Freemantle,⁸ Jabulani Chwaula,⁹ Memory Sachikonye,¹⁰ Jane Anderson,¹¹ Surinder Singh,⁵ Eleni Nastouli,¹² Greta Rait^{6,8} and Fiona Burns^{1,13}*

- ¹Research Department, Infection & Population Health, University College London, London, UK
- ²Sigma Research, London School of Hygiene & Tropical Medicine, London, UK
 ³MRC/CSO Social and Public Health Sciences Unit, University of Glasgow, Glasgow, UK
- ⁴School of Health and Life Sciences, Glasgow Caledonian University, Glasgow, UK ⁵Research Department, Primary Care and Population Health, University College London, London, UK
- ⁶National Institute for Health Research Health Protection Research Unit in Blood Borne and Sexually Transmitted Infections, University College London, London, UK
- ⁷Usher Institute of Population Health Sciences and Informatics, University of Edinburgh, Edinburgh, UK
- ⁸PRIMENT Clinical Trials Unit, Primary Care and Population Health, University College London, London, UK
- ⁹BHA for Equality in Health and Social Care, Leeds, UK
- ¹⁰UK Community Advisory Board, London, UK
- ¹¹Centre for the Study of Sexual Health and HIV, Homerton University Hospital NHS Foundation Trust, London, UK
- ¹²Virology Department, University College London Hospitals NHS Foundation Trust, London, UK
- ¹³Royal Free London NHS Foundation Trust, London, UK

*Corresponding author f.burns@ucl.ac.uk

Declared competing interests of authors: Fiona Burns reports grants from the National Institute for Health Research (NIHR) for other projects during the conduct of the study, and personal fees and other from Gilead Sciences Ltd (London, UK), outside the submitted work. Rachael Hunter reports grants from the NIHR Health Technology Assessment (HTA) programme for other projects, during the conduct of the study. Ibidun Fakoya reports a grant from NIHR for another project, during the conduct of the study. Eleni Nastouli reports personal fees from Roche (Burgess Hill, UK), grants from Viiv Healthcare (London, UK), grants from the NIHR Hourier (H2020) and personal fees from NIHR, outside the submitted work. Lisa McDaid reports grants from the NIHR HTA programme for other projects, during the conduct of the study. Jane Anderson reports grants and personal fees from Gilead Sciences Ltd, and personal fees from ViiV Healthcare, Merck Sharp & Dohme Limited (Hoddesdon, UK), Bristol-Myers Squibb (Uxbridge, UK), Jansen-Cilag Limited (High Wycombe, UK) and AbbVie (Maidenhead, UK), outside the submitted work.

Published April 2018 DOI: 10.3310/hta22220

Plain English summary

The HAUS study

Health Technology Assessment 2018; Vol. 22: No. 22 DOI: 10.3310/hta22220

NIHR Journals Library www.journalslibrary.nihr.ac.uk

Plain English summary

uman immunodeficiency virus (HIV) diagnosis among black African people in the UK often happens long after infection, increasing the likelihood of ill health and further infections. Innovative ways to increase HIV testing are needed.

We wanted to find out if distributing HIV self-sampling kits (SSKs) through community and health-care services would increase HIV testing among black African people. Self-sampling involves taking your own sample and sending it to a laboratory that lets you know the result.

Stage 1 of the HAUS study was designing a way to distribute SSKs within existing services that was acceptable, workable and affordable. A review of published studies, focus group discussions and interviews helped to develop this. General practices and community-based organisations (CBOs) were chosen to distribute SSKs. A script was developed that reassured distributors and potential users about targeting black Africans, and ensured that SSKs were introduced consistently.

We had hoped to run stage 2 in Glasgow and London but, as a result of various reasons, could only test the intervention in London at 12 general practices and three CBOs. One-third of those people approached took part (36%, 125/349). Around half of those who took a kit (55%, 65/119) sent back their sample. No one had a reactive test, but 17% sent back samples with not enough blood to be processed. Participants and distributors felt that people liked the idea of SSKs and the location of the intervention, and that the offer encouraged them to test themselves. However, some found it difficult to take blood and many felt uncomfortable about ethnic targeting. The main barrier was time, particularly for those working in general practice surgeries. Our economic model suggests that this approach may be cost-effective.

Although our study did not prove to be feasible, it highlighted the need to develop more user-friendly SSKs. It also found that busy services do not have time to 'bolt on' a SSK intervention unless there is a strong incentive to do so.

© Queen's Printer and Controller of HMSO 2018. This work was produced by Seguin *et al.* under the terms of a commissioning contract issued by the Secretary of State for Health and Social Care. This issue may be freely reproduced for the purposes of private research and study and extracts (or indeed, the full report) may be included in professional journals provided that suitable acknowledgement is made and the reproduction is not associated with any form of advertising. Applications for commercial reproduction should be addressed to: NIHR Journals Library, National Institute for Health Research, Evaluation, Trials and Studies Coordinating Centre, Alpha House, University of Southampton Science Park, Southampton SO16 7NS, UK.

Health Technology Assessment

ISSN 1366-5278 (Print)

ISSN 2046-4924 (Online)

Impact factor: 4.236

Health Technology Assessment is indexed in MEDLINE, CINAHL, EMBASE, The Cochrane Library and the Clarivate Analytics Science Citation Index.

This journal is a member of and subscribes to the principles of the Committee on Publication Ethics (COPE) (www.publicationethics.org/).

Editorial contact: journals.library@nihr.ac.uk

The full HTA archive is freely available to view online at www.journalslibrary.nihr.ac.uk/hta. Print-on-demand copies can be purchased from the report pages of the NIHR Journals Library website: www.journalslibrary.nihr.ac.uk

Criteria for inclusion in the Health Technology Assessment journal

Reports are published in *Health Technology Assessment* (HTA) if (1) they have resulted from work for the HTA programme, and (2) they are of a sufficiently high scientific quality as assessed by the reviewers and editors.

Reviews in *Health Technology Assessment* are termed 'systematic' when the account of the search appraisal and synthesis methods (to minimise biases and random errors) would, in theory, permit the replication of the review by others.

HTA programme

The HTA programme, part of the National Institute for Health Research (NIHR), was set up in 1993. It produces high-quality research information on the effectiveness, costs and broader impact of health technologies for those who use, manage and provide care in the NHS. 'Health technologies' are broadly defined as all interventions used to promote health, prevent and treat disease, and improve rehabilitation and long-term care.

The journal is indexed in NHS Evidence via its abstracts included in MEDLINE and its Technology Assessment Reports inform National Institute for Health and Care Excellence (NICE) guidance. HTA research is also an important source of evidence for National Screening Committee (NSC) policy decisions.

For more information about the HTA programme please visit the website: http://www.nets.nihr.ac.uk/programmes/hta

This report

The research reported in this issue of the journal was funded by the HTA programme as project number 12/138/02. The contractual start date was in June 2014. The draft report began editorial review in October 2016 and was accepted for publication in June 2017. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The HTA editors and publisher have tried to ensure the accuracy of the authors' report and would like to thank the reviewers for their constructive comments on the draft document. However, they do not accept liability for damages or losses arising from material published in this report.

This report presents independent research funded by the National Institute for Health Research (NIHR). The views and opinions expressed by authors in this publication are those of the authors and do not necessarily reflect those of the NHS, the NIHR, NETSCC, the HTA programme or the Department of Health and Social Care. If there are verbatim quotations included in this publication the views and opinions expressed by the interviewees are those of the interviewees and do not necessarily reflect those of the authors, those of the NHS, the NIHR, NETSCC, the HTA programme or the Department of Health and Social Care.

© Queen's Printer and Controller of HMSO 2018. This work was produced by Seguin *et al.* under the terms of a commissioning contract issued by the Secretary of State for Health and Social Care. This issue may be freely reproduced for the purposes of private research and study and extracts (or indeed, the full report) may be included in professional journals provided that suitable acknowledgement is made and the reproduction is not associated with any form of advertising. Applications for commercial reproduction should be addressed to: NIHR Journals Library, National Institute for Health Research, Evaluation, Trials and Studies Coordinating Centre, Alpha House, University of Southampton Science Park, Southampton SO16 7NS, UK.

Published by the NIHR Journals Library (www.journalslibrary.nihr.ac.uk), produced by Prepress Projects Ltd, Perth, Scotland (www.prepress-projects.co.uk).

Health Technology Assessment Editor-in-Chief

Professor Hywel Williams Director, HTA Programme, UK and Foundation Professor and Co-Director of the Centre of Evidence-Based Dermatology, University of Nottingham, UK

NIHR Journals Library Editor-in-Chief

Professor Tom Walley Director, NIHR Evaluation, Trials and Studies and Director of the EME Programme, UK

NIHR Journals Library Editors

Professor Ken Stein Chair of HTA and EME Editorial Board and Professor of Public Health, University of Exeter Medical School, UK

Professor Andrée Le May Chair of NIHR Journals Library Editorial Group (HS&DR, PGfAR, PHR journals)

Dr Martin Ashton-Key Consultant in Public Health Medicine/Consultant Advisor, NETSCC, UK

Professor Matthias Beck Professor of Management, Cork University Business School, Department of Management and Marketing, University College Cork, Ireland

Dr Tessa Crilly Director, Crystal Blue Consulting Ltd, UK

Dr Eugenia Cronin Senior Scientific Advisor, Wessex Institute, UK

Dr Peter Davidson Director of the NIHR Dissemination Centre, University of Southampton, UK

Ms Tara Lamont Scientific Advisor, NETSCC, UK

Dr Catriona McDaid Senior Research Fellow, York Trials Unit, Department of Health Sciences, University of York, UK

Professor William McGuire Professor of Child Health, Hull York Medical School, University of York, UK

Professor Geoffrey Meads Professor of Wellbeing Research, University of Winchester, UK

Professor John Norrie Chair in Medical Statistics, University of Edinburgh, UK

Professor John Powell Consultant Clinical Adviser, National Institute for Health and Care Excellence (NICE), UK

Professor James Raftery Professor of Health Technology Assessment, Wessex Institute, Faculty of Medicine, University of Southampton, UK

Dr Rob Riemsma Reviews Manager, Kleijnen Systematic Reviews Ltd, UK

Professor Helen Roberts Professor of Child Health Research, UCL Great Ormond Street Institute of Child Health, UK

Professor Jonathan Ross Professor of Sexual Health and HIV, University Hospital Birmingham, UK

Professor Helen Snooks Professor of Health Services Research, Institute of Life Science, College of Medicine, Swansea University, UK

Professor Jim Thornton Professor of Obstetrics and Gynaecology, Faculty of Medicine and Health Sciences, University of Nottingham, UK

Professor Martin Underwood Director, Warwick Clinical Trials Unit, Warwick Medical School, University of Warwick, UK

Please visit the website for a list of members of the NIHR Journals Library Board: www.journalslibrary.nihr.ac.uk/about/editors

Editorial contact: journals.library@nihr.ac.uk