

Interventions to optimise the outputs of national clinical audits to improve the quality of health care: a multi-method study including RCT

Thomas A Willis,¹ Alexandra Wright-Hughes,²
Ana Weller,³ Sarah L Alderson,¹ Stephanie Wilson,³
Rebecca Walwyn,² Su Wood,¹ Fabiana Lorencatto,⁴
Amanda Farrin,² Suzanne Hartley,² Jillian Francis,⁵
Valentine Seymour,⁵ Jamie Brehaut,⁶
Heather Colquhoun,⁷ Jeremy Grimshaw,⁶
Noah Ivers,⁸ Richard Feltbower,⁹ Justin Keen,¹
Benjamin C Brown,^{10,11} Justin Presseau,^{6,12}
Chris P Gale,^{9,13,14} Simon J Stanworth^{15,16,17,18}
and Robbie Foy^{1*}

¹Leeds Institute of Health Sciences, University of Leeds, Leeds, UK

²Leeds Institute of Clinical Trials Research, University of Leeds, Leeds, UK

³Centre for Human-Computer Interaction Design, City, University of London, London, UK

⁴Centre for Behaviour Change, University College London, London, UK

⁵School of Health Sciences, City, University of London, London, UK

⁶Ottawa Hospital Research Institute, Ottawa, ON, Canada

⁷Department of Occupational Science and Occupational Therapy, University of Toronto, Toronto, ON, Canada

⁸Women's College Hospital, Toronto, ON, Canada

⁹Leeds Institute for Data Analytics, University of Leeds, Leeds, UK

¹⁰Centre for Health Informatics, University of Manchester, Manchester, UK

¹¹Centre for Primary Care, University of Manchester, Manchester, UK

¹²School of Epidemiology and Public Health, University of Ottawa, Ottawa, ON, Canada

¹³Leeds Institute of Cardiovascular and Metabolic Medicine, University of Leeds, Leeds, UK

¹⁴Department of Cardiology, Leeds Teaching Hospitals NHS Trust, Leeds, UK

¹⁵Transfusion Medicine, NHS Blood and Transplant (NHSBT), Oxford, UK

¹⁶Department of Haematology, Oxford University Hospitals NHS Foundation Trust, Oxford, UK

¹⁷Radcliffe Department of Medicine, University of Oxford, Oxford, UK

¹⁸NIHR Oxford Biomedical Research Centre, Oxford, UK

*Corresponding author r.foy@leeds.ac.uk

Declared competing interests of authors: Jeremy Grimshaw reports leading the Audit and Feedback MetaLab, which is an international collaboration to advance learning and expertise on audit and feedback and which promotes the development of audit and feedback implementation laboratories internationally. Robbie Foy reports membership of the Audit and Feedback MetaLab and NIHR Programme Grants for Applied Research Subpanel B (2017–20). Fabiana Lorencatto reports membership of the Audit and Feedback MetaLab and grants from the National Institute for Health and Care Research (NIHR) during the conduct of the study. Sarah Alderson reports membership of the Audit and Feedback MetaLab, as well as grants from Academy of Medical Sciences, NIHR, Royal College of General Practitioners, Health Data Research UK, and Yorkshire Cancer Research outside the submitted work. Thomas Willis, Jillian Francis, Jamie Brehaut, Heather Colquhoun, Noah Ivers and Benjamin Brown report membership of the Audit and Feedback MetaLab. Amanda Farrin reports membership of the NIHR Health Technology Assessment (HTA) Clinical Evaluation and Trials Board (2014–18) and the NIHR HTA Commissioning Strategy Group (2014–18). Su Wood reports grants from West Yorkshire Research and Development Research Capability Funding during the conduct of the study, as well as grants from the Royal College of General Practitioners outside the submitted work. Stephanie Wilson reports grants from NIHR during the conduct of the study.

Published June 2022

DOI: 10.3310/QBBZ1124

Plain English summary

Interventions to optimise the outputs of national clinical audits

Health and Social Care Delivery Research 2022; Vol. 10: No. 15

DOI: 10.3310/QBBZ1124

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

Plain English summary

What was the question?

National clinical audits collect data on how well patients are treated across a range of problems and specialties. The data are fed back to NHS clinicians and managers so that they can remedy any shortfalls in care. The research evidence about how best to deliver this feedback is limited. For example, different report formats or comparisons may affect how NHS staff and organisations act on feedback. We investigated different ways to make feedback work better.

What did we do?

First, we did an online experiment with 638 clinicians and managers from across the UK. We randomly assigned participants to assess different ways of giving feedback and measured their responses to the feedback.

Second, we had planned to observe promising ways of giving feedback under 'real-world' conditions in the NHS. The COVID-19 pandemic ended this work early. Instead, we interviewed 19 clinicians, members of the public and researchers about how two national audits could improve their feedback methods.

Third, we interviewed 31 people who produce, receive or evaluate feedback to explore how to embed further research with national audits.

What did we find?

The experiment showed that different ways of giving feedback and who receives the feedback can have important positive and negative impacts on how likely it is that clinicians and managers will act on it.

The analysis of two audits found that guiding clinicians and managers in deciding what action to take could enhance the effects of their feedback.

The interviews suggested that national audit leaders and researchers need to build trusting relationships and understand one another's needs and pressures when testing ways of improving the impacts of audits.

What does this mean?

National audit leaders can make practical changes to their feedback methods so that this improves the impact that they have on health care, and work with researchers to test new feedback methods.

Health and Social Care Delivery Research

ISSN 2755-0060 (Print)

ISSN 2755-0079 (Online)

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

This journal was previously published as *Health Services and Delivery Research* (Volumes 1–9); ISSN 2050-4349 (print), ISSN 2050-4357 (online)

The full HSDR archive is freely available to view online at www.journalslibrary.nihr.ac.uk/hsdr. 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 and Social Care Delivery Research* journal

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

HSDR programme

The HSDR programme funds research to produce evidence to impact on the quality, accessibility and organisation of health and social care services. This includes evaluations of how the NHS and social care might improve delivery of services.

For more information about the HSDR programme please visit the website at <https://www.nihr.ac.uk/explore-nihr/funding-programmes/health-and-social-care-delivery-research.htm>

This report

The research reported in this issue of the journal was funded by the HSDR programme or one of its preceding programmes as project number 16/04/13. The contractual start date was in January 2018. The final report began editorial review in December 2020 and was accepted for publication in July 2021. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The HSDR editors and production house have tried to ensure the accuracy of the authors' report and would like to thank the reviewers for their constructive comments on the final report 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 and Care 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, the HSDR 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, the HSDR programme or the Department of Health and Social Care.

Copyright © 2022 Willis *et al.* This work was produced by Willis *et al.* under the terms of a commissioning contract issued by the Secretary of State for Health and Social Care. This is an Open Access publication distributed under the terms of the Creative Commons Attribution CC BY 4.0 licence, which permits unrestricted use, distribution, reproduction and adaptation in any medium and for any purpose provided that it is properly attributed. See: <https://creativecommons.org/licenses/by/4.0/>. For attribution the title, original author(s), the publication source – NIHR Journals Library, and the DOI of the publication must be cited.

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

NIHR Journals Library Editor-in-Chief

Professor Ken Stein Professor of Public Health, University of Exeter Medical School, UK

NIHR Journals Library Editors

Professor John Powell Chair of HTA and EME Editorial Board and Editor-in-Chief of HTA and EME journals. Consultant Clinical Adviser, National Institute for Health and Care Excellence (NICE), UK, and Professor of Digital Health Care, Nuffield Department of Primary Care Health Sciences, University of Oxford, UK

Professor Andrée Le May Chair of NIHR Journals Library Editorial Group (HSDR, PGfAR, PHR journals) and Editor-in-Chief of HSDR, PGfAR, PHR journals

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 Consultant in Public Health, Delta Public Health Consulting Ltd, UK

Dr Peter Davidson Consultant Advisor, Wessex Institute, University of Southampton, UK

Ms Tara Lamont Senior Adviser, Wessex Institute, University of Southampton, UK

Dr Catriona McDaid Reader in Trials, 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 Emeritus Professor of Wellbeing Research, University of Winchester, 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, Child and Adolescent Mental Health, Palliative Care and Paediatrics Unit, Population Policy and Practice Programme, UCL Great Ormond Street Institute of Child Health, London, 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 Ken Stein Professor of Public Health, University of Exeter Medical School, UK

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

Please visit the website for a list of editors: www.journalslibrary.nihr.ac.uk/about/editors

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