What is the effect of reduced street lighting on crime and road traffic injuries at night? A mixed-methods study

Chloe Perkins,1 Rebecca Steinbach,2 Lisa Tompson,3 Judith Green,4 Shane Johnson,3 Chris Grundy,2 Paul Wilkinson2 and Phil Edwards1*

1Department of Population Health, London School of Hygiene and Tropical Medicine, London, UK
2Department of Social and Environmental Health Research, London School of Hygiene and Tropical Medicine, London, UK
3Department of Security and Crime Science, University College London, London, UK
4Department of Health Services Research and Policy, London School of Hygiene and Tropical Medicine, London, UK

*Corresponding author

Declared competing interests of authors: none

Published September 2015
DOI: 10.3310/phr03110

Plain English summary

Effect of reduced street lighting on crime and road traffic injuries at night

Public Health Research 2015; Vol. 3: No. 11
DOI: 10.3310/phr03110

NIHR Journals Library www.journalslibrary.nihr.ac.uk
Plain English summary

What was the question?

Some local authorities in England and Wales have reduced the provision of street lighting at night. Common methods of doing this include turning lights off at 12 a.m. (midnight) and dimming lights. This saves money and reduces greenhouse gas emissions. The public and the media, however, have raised safety concerns.

What did we do?

We analysed data from 62 local authorities to see whether road traffic casualties or crime increase when street lighting is reduced. We also investigated opinions on the effect of reduced street lighting on health and well-being. We interviewed residents, workers, community groups and the general public in eight local authorities and sent questionnaires to 1000 households.

What did we find?

We found no evidence that reduced street lighting at night increases road casualties or crime. The public were most concerned about personal security, road safety, fear of crime, ability to see the night sky and quality of sleep. Some residents in urban areas said that street lights show that a local authority cares about their welfare. Households reported feeling less safe when walking alone at night in streets where the lights switch off at midnight.

What does this mean?

The current evidence suggests that local authorities can safely reduce street lighting at night without increasing road casualties or crime. Local authorities should consider public concerns when they decide where, and when, to reduce lighting at night.
Criteria for inclusion in the Public Health Research journal

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

Reviews in Public Health Research 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.

PHR programme

The Public Health Research (PHR) programme, part of the National Institute for Health Research (NIHR), evaluates public health interventions, providing new knowledge on the benefits, costs, acceptability and wider impacts of non-NHS interventions intended to improve the health of the public and reduce inequalities in health. The scope of the programme is multi-disciplinary and broad, covering a range of interventions that improve public health. The Public Health Research programme also complements the NIHR Health Technology Assessment programme which has a growing portfolio evaluating NHS public health interventions.

For more information about the PHR programme please visit the website: www.nets.nihr.ac.uk/programmes/phr

This report

The research reported in this issue of the journal was funded by the PHR programme as project number 11/3004/02. The contractual start date was in January 2013. The final report began editorial review in January 2015 and was accepted for publication in May 2015. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The PHR 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 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 PHR programme or the Department of Health. 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 PHR programme or the Department of Health.

© Queen’s Printer and Controller of HMSO 2015. This work was produced by Perkins et al. under the terms of a commissioning contract issued by the Secretary of State for Health. 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).
Public Health Research Editor-in-Chief

Professor Martin White  Professor of Public Health, Institute of Health & Society, Newcastle University and Honorary Consultant in Public Health with Public Health England

NIHR Journals Library Editor-in-Chief

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

NIHR Journals Library Editors

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

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

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

Professor Matthias Beck  Chair in Public Sector Management and Subject Leader (Management Group), Queen’s University Management School, Queen’s University Belfast, UK

Professor Aileen Clarke  Professor of Public Health and Health Services Research, Warwick Medical School, University of Warwick, UK

Dr Tessa Crilly  Director, Crystal Blue Consulting Ltd, UK

Dr Peter Davidson  Director of NETSCC, HTA, UK

Ms Tara Lamont  Scientific Advisor, NETSCC, UK

Professor Elaine McColl  Director, Newcastle Clinical Trials Unit, Institute of Health and Society, Newcastle University, UK

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

Professor Geoffrey Meads  Professor of Health Sciences Research, Faculty of Education, University of Winchester, UK

Professor John Norrie  Health Services Research Unit, University of Aberdeen, 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 Institute of Child Health, 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

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

Editorial contact: nihredit@southampton.ac.uk