The management of individuals with enduring moderate to severe mental health needs: a participatory evaluation of client journeys and the interface of mental health services with the criminal justice system in Cornwall

Susan Lea,<sup>1\*†</sup> Lynne Callaghan,<sup>2†</sup> Susan Eick,<sup>2</sup> Margaret Heslin,<sup>3</sup> John Morgan,<sup>4</sup> Mark Bolt,<sup>5</sup> Andrew Healey,<sup>3</sup> Barbara Barrett,<sup>3</sup> Diana Rose,<sup>1</sup> Anita Patel<sup>3</sup> and Graham Thornicroft<sup>1</sup>

 <sup>1</sup>Institute of Psychiatry, Psychology and Neuroscience, King's College London, London, UK
<sup>2</sup>Faculty of Health and Human Sciences, Plymouth University, Plymouth, Devon, UK
<sup>3</sup>Centre for the Economics of Mental and Physical Health, Institute of Psychiatry, Psychology and Neuroscience, King's College London, London, UK
<sup>4</sup>Centre for Mental Health and Justice, Cornwall Partnership NHS Foundation Trust, Bodmin, Cornwall, UK
<sup>5</sup>Devon & Cornwall Police, Exeter, Devon, UK

\*Corresponding author <sup>†</sup>Joint authorship

#### Declared competing interests of authors: none

**Disclaimer:** this report contains transcripts of interviews conducted in the course of the research and contains language that may offend some readers.

Published April 2015 DOI: 10.3310/hsdr03150

# **Scientific summary**

Individuals with moderate to severe mental health needs Health Services and Delivery Research 2015; Vol. 3: No. 15 DOI: 10.3310/hsdr03150

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

# **Scientific summary**

#### Background

Throughout the last 20 years, there has been an escalating debate about how individuals with enduring moderate to severe mental health needs (EMHN) might best be managed within and between the NHS and criminal justice system (CJS). It is widely recognised by services that these individuals repeatedly come to the attention of the CJS. A pilot study conducted by the Devon & Cornwall Police (DCP) with the collaboration of Cornwall Partnership NHS Foundation Trust (CFT) highlighted the need for research to identify gaps in service, with particular reference to interagency decision-making in the management of EMHN individuals.

#### **Objectives**

The aim of the Interface Project was to examine and explore current practice relating to the management of EMHN individuals, specifically at those points where they interface with the NHS and CJS, and to ascertain how such practice could be enhanced. The research was developed specifically to deliver this aim through answering a series of questions:

- 1. How are the practice implications of current national policy relating to the management of individuals with EMHN being interpreted at local level?
- 2. How has Cornwall articulated national policy into practice benchmarks where the NHS and police are required to work together?
- 3. What are the organising principles that precipitate a joint working decision, by either the NHS or the police?
- 4. What is the decision-making process and who is involved in it?
- 5. Is the decision-making process consonant with local practice guidelines and national policy implications?
- 6. What is the impact of these decisions on the service user?
- 7. What is the impact of these decisions on the NHS and police organisations?
- 8. What are the economic costs associated with current and potentially enhanced practice?
- 9. What are the barriers and facilitators to the multiagency management of individuals with EMHN?
- 10. What are the implications of the research for national policy and practice?

## Methods

The project was informed by a conceptual and methodological framework developed by a multidisciplinary team of academics and practitioners to provide an evaluation through mixed methods. This framework was designed to be responsive to identified need through the engagement of stakeholders at all stages of the research process, ensuring the meaningful utilisation of findings. The research process was guided by the praxis-oriented dialogue model.

A three-stage methodology (two using secondary and one using primary data) was developed. Stage 1 had two components to address research questions 1 and 2. A short policy into practice review was conducted to examine how national policy was interpreted and translated locally. This involved a review of relevant regional/local documents and national pertinent Acts, codes of practice and government consultation exercises. A registered clinical audit was conducted within CFT to identify cases that would form the participant pool for the case-linkage study. Cases were identified through police records including

the Neighbourhood Harm Reduction Register (NHRR), the National Strategy for Police Information Systems (NSPIS) custody records, the Operational Information System and the criminal intelligence system, and cross-checked on the Trust RiO mental health system.

Stage 2 also comprised two elements to address research questions 3–8; first, analysis of secondary case-linked data from 80 cases identified by the audit presented above; and second, a health economics component to calculate costs of current client journeys and compare these with enhanced models. The case-linkage study explored client journeys through the NHS and CJS by linking NHS case files (from CFT) and police intelligence files (from DCP). Approval was sought from the relevant NHS Research Ethics Committee, Trust Research and Development Office, and ethics committees within the higher education partners. Cases were identified through the clinical audit (original participant pool of 538 cases of which 80 were selected for the case-linkage study). An application was made to the Ethics & Confidentiality Committee of the National Information Governance Board (NIGB) for their support in terms of Section 251 of the NHS Act (2006) by setting aside the common law duty of confidentiality in light of findings of the audit that suggested the process of consenting service users would result in a significant number of the most vulnerable individuals not being involved in the research.

A random selection of 80 cases were selected from the participant pool of 538 pseudonymised cases identified from the clinical audit using a stratified sampling framework. Stratification was based on the case characteristics of the population and reflected the full range of service user experiences with both mental health and police services in Cornwall. Stratification categories were (1) type of CJS contact (NSPIS; NHRR; Section 136 detentions; multiple; complex); (2) frequency of CJS contact; (3) referral status at time of police contact (current ongoing referral; current ongoing referral and referral specific to police contact; only referral specific to police contact; no current referral).

All mental health and police records over a full 12-month period were accessed for each of the 80 cases and linked to form the substantial data corpus. Confidentiality of person identifiable data was assured through a rigorous pseudonymisation and data access method, which was developed and agreed by the research team, CFT and DCP, and authorised by the NIGB. Cases were assigned a novel PseudoID, which acted as an alias within the newly created pseudonymised, depersonalised data sets. A combination of descriptive quantitative analyses and qualitative framework analyses was used. All data were coded independently by two researchers. Any differences in coding were resolved through discussion and input from a third researcher as required.

The aim of the economic component of this study was threefold: to conduct a cost analysis, estimating the total costs of clients moving though the current pathways based on observed criminal justice and health service activity identified through the case-linkage study; to use these data to create a decision-analytic model (using a decision tree) to map an approximation of client progress through criminal justice services complete with attached costs and probabilities; and to use this, combined with recommendations from key policy documents, to create a series of alternative models that represent the estimated potential CJS cost impacts of enhancements to current practice on decision-making processes and client journeys. Prices for police and health contacts were derived from various sources, including practice organisations and consultation with practitioners to provide a series of costs for the year 2011/12. These prices and the data from the case-linkage study were used to develop a price per person over a 12-month period for their interactions with the police and health services.

Stage 3 of the research involved a stakeholder consultation, through focus groups and interviews, of police (n = 14), mental health professionals (n = 4) and service users (n = 8). Participants were asked to discuss the findings from the case-linkage study as well as the barriers and facilitators to working at the interface of services with individuals with EMHN. Data collected from each participant group was analysed using thematic content analysis.

<sup>©</sup> Queen's Printer and Controller of HMSO 2015. This work was produced by Lea *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.

#### Results

The policy into practice review revealed a set of headline recommendations, principally from the report conducted by Lord Bradley in 2009. These recommendations informed the analysis of data in stages 2 and 3 of the research.

The clinical audit identified 538 mental health service users who came into contact with the police in the second quarter of 2011. Eighty cases were selected for the case-linkage study using the stratified sampling framework detailed above. The demographic profile of the 80 individuals in the case-linkage study was the majority were male (60%), with a mean age of 36.3 years (range 18–84 years); the majority of cases for which data on marital status was available (n = 56) were single (n = 43); 75% were unemployed; and all individuals where data were available were white British (n = 75).

Analysis of the data revealed the need to split the sample into three subsamples on the basis of type of police contact due to the substantially different nature of these interactions and service user journeys. These were:

- Section 136 detentions: 23 individuals relating to 32 contacts, average of one contact per person (range from one to four).
- Detentions relating to criminal offence: 52 individuals relating to 126 contacts, average number of contacts per person 2.4 (range 1–10).
- Non-detention contacts: 15 individuals relating to 418 contacts, average number of contacts per person 28 (range 1–296).

For 10 cases, the individuals had both Section 136 and custody contacts. The majority of individuals also had non-detention contacts:

- Section 136 and custody individuals: 10 individuals, average number of non-detention contacts per person 13.3 (range 6–35).
- Section 136 only: 12 individuals, average number of non-detention contacts per person 4.4 (range 0–16).
- Custody only: 41 individuals, average number of non-detention contacts per person 7.0 (range 0–27).

#### Section 136 findings

In this group, the majority of cases were female (n = 13, 57%) and the average age was 35.7 years (range 18.8–73.3 years). Of the 14 records available, 13 cases were recorded as single and one as married or having a civil partner. The majority were unemployed (n = 19, 82.6%). Ten of the individuals in the group also had a custody contact and eight had an entry on the NHRR. For 20 of the 32 detentions, the individual was on the caseload of a Mental Health Team (MHT) at the time of police contact. In terms of police knowledge of their mental health status, 11 individuals had a mental health warning on the Police National Computer (PNC). Framework analysis highlighted four main decision points relating to individuals with EMHN when detained under Section 136:

- 1. initial decision to detain under Section 136
- 2. location of detention
- 3. request and conduct Mental Health Act assessment (MHAA)
- 4. outcome of MHAA.

#### **Custody findings**

In this group, the majority were male (n = 35, 67.5%) and the average age was 33.6 years (range 18–67 years). Of the 39 records available, 30 individuals were recorded as single, seven were married or had a civil partner, one individual was divorced or in a civil partnership that had been dissolved and one was widowed or a surviving civil partner. The majority were unemployed (n = 45, 86.5%).

The reasons for arrest were offences against people, n = 35; breaches of warrants, etc., n = 29; public order offences, n = 26; theft offences, n = 24; criminal damage, n = 10; and drug offences, n = 2.

For 55 of the 126 detentions, the individual was on the caseload of a MHT. Seven MHAAs were carried out for the 126 incidents. An appropriate adult was present in 31 (25%) incidents.

In terms of police knowledge of their mental health status, eight individuals had a mental health warning on the PNC. Framework analysis highlighted four main decision points relating to individuals with EMHN when in custody:

- 1. decision to detain and conduct of arrest
- 2. detention management decisions
- 3. decision to conduct a MHAA
- 4. decision regarding the outcome of the MHAA and custody disposal.

#### Non-detention findings

In this group, eight were female (53%) and the average age was 41.5 years (range 21.2-85.0 years).

Of the 11 records available for marital status, seven cases were recorded as single and three as married or having a civil partner, one was unrecorded. Six of the 15 individuals were unemployed, one worked in an elementary occupation, two were retired, and six were unrecorded. For 334 of the 418 contacts, the individuals were on the caseload of a MHT. Five individuals had a mental health marker on the PNC. Framework analysis highlighted four main decision points relating to individuals with EMHN when in contact with the police for non-detention reasons:

- Decision 1: decision to dispatch response officers.
- Decision 2: decision not to detain/officers' responses.
- Decision 3: decision to provide further support/joint management.
- Decision 4: decision to conduct a MHAA.

#### Health economic findings

Total health and social care costs were non-normally distributed and positively skewed. The mean cost per person over the 1-year period was £15,363.95 [standard deviation £24,007.21; interquartile range £2647.46–14,961.50; 95% bootstrapped confidence interval (CI) £10,688.52 to £24,960.44]. The range was from £529.30 to £112,862.70. Univariable analysis of factors associated with cost based on baseline characteristics showed that the only variable associated with costs was whether or not the client was a long-term referral, with short-term referral having a higher mean cost of £12,849.98 (95% bootstrapped CI £3944.91 to £29,191.59).

The scenario modelling suggests that introducing street triage, enhanced Section 136 assessments or custody liaison and diversion services have minimal effects on individual-level costs compared with current practice, even when substantial changes are made to key assumptions used to estimate costs. When considering the total volume of clients who could potentially be affected by new service enhancements, the overall resource investment in services required could be significant. However, it should be noted that the diversionary aim of such services and consequent potential reduction in the target population could validate this resource investment.

#### Stakeholder consultation

The findings of the case-linkage study resonated with local stakeholders. Across professional and service user groups, stakeholders raised the need for accurate and timely information sharing that would benefit interagency working and the professionals involved in delivering service, as well as having immediate and long-term benefits to service users as they move between services. Both professionals and service users raised the tensions with regard to role, remit and responsibility of police and mental health professionals.

<sup>©</sup> Queen's Printer and Controller of HMSO 2015. This work was produced by Lea *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.

The findings of the local stakeholder study had resonance with the stakeholders attending the national stakeholder event.

#### Conclusions

The implications of the research are the need for integrated mental health and criminal justice service for EMHN individuals, guided by joint agency protocols pertaining to information governance and interagency information sharing. Joint training of police and mental health professionals would enable common interpretation of protocol to guide practice leading to consistent and enhanced service user outcomes.

Recommendations for research include replication of this single-site study in other areas of England and Wales; examination of custody detentions of mental health service users who were not in receipt of a MHAA; detailed study of risk interpretation and risk responsibility within and between professional groups in relation to protocol comprehension; systematic investigation of the impact of joint training initiatives and professional decision-making within integrated services; re-use of the substantial data corpus generated within this research to analyse the negotiation of risk between services and conceptualisations of mental health and EMHN individuals using a discursive approach; and further exploration of the existing data to examine the impact of sexual violence and cases of mothers whose children have been removed from their care on service access and mental health.

### Funding

The National Institute for Health Research Health Services and Delivery Research programme.

# **Health Services and Delivery Research**

ISSN 2050-4349 (Print)

ISSN 2050-4357 (Online)

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

Editorial contact: nihredit@southampton.ac.uk

The full HS&DR 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 Services and Delivery Research journal

Reports are published in *Health Services and Delivery Research* (HS&DR) if (1) they have resulted from work for the HS&DR programme or programmes which preceded the HS&DR programme, and (2) they are of a sufficiently high scientific quality as assessed by the reviewers and editors.

#### **HS&DR** programme

The Health Services and Delivery Research (HS&DR) programme, part of the National Institute for Health Research (NIHR), was established to fund a broad range of research. It combines the strengths and contributions of two previous NIHR research programmes: the Health Services Research (HSR) programme and the Service Delivery and Organisation (SDO) programme, which were merged in January 2012.

The HS&DR programme aims to produce rigorous and relevant evidence on the quality, access and organisation of health services including costs and outcomes, as well as research on implementation. The programme will enhance the strategic focus on research that matters to the NHS and is keen to support ambitious evaluative research to improve health services.

For more information about the HS&DR programme please visit the website: http://www.nets.nihr.ac.uk/programmes/hsdr

#### This report

The research reported in this issue of the journal was funded by the HS&DR programme or one of its preceding programmes as project number 10/1011/67. The contractual start date was in October 2011. The final report began editorial review in October 2013 and was accepted for publication in February 2014. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The HS&DR 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 HS&DR 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 HS&DR programme or the Department of Health. This report contains transcripts of interviews conducted in the course of the research, or similar, and contains language which may offend some readers.

© Queen's Printer and Controller of HMSO 2015. This work was produced by Lea *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).

## Health Services and Delivery Research Editor-in-Chief

Professor Ray Fitzpatrick Professor of Public Health and Primary Care, University of Oxford, UK

#### **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 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

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