LEEDS METROPOLITAN UNIVERSITY
INSTITUTE FOR HEALTH AND WELLBEING

LEEDS METROPOLITAN UNIVERSITY
Institute for Health & Wellbeing

A systematic review of the effectiveness and cost-effectiveness of peer-based interventions to maintain and improve prisoner health in prison settings

FINAL SYSTEMATIC REVIEW PROTOCOL

May 2012

Bagnall, A-M[1], Hulme, C.T[2], Woodall, J[1], South, J.[1]

[1] Centre for Health Promotion Research, Leeds Metropolitan University

[2] Academic Unit of Health Economics, Leeds Institute of Health Sciences, University of Leeds

Contact: Professor Jane South
Leeds Metropolitan University
Tel: 0113 812 4406
Email: j.south@leedsmet.ac.uk

National Institute for Health Research (NIHR) Health Services and Delivery Research (NIHR HS&DR) programme Project: 10/2002/13.

1 AIMS AND OBJECTIVES

The aims of the project are to conduct an evidence synthesis on peer-based interventions in prison settings, including young offender institutions (YOIs), and to provide research based information on types of intervention, outcomes, costs and benefits to aid decision making within the prison health service. The main research question is: *What is the effectiveness and cost effectiveness of peer-based interventions to maintain and improve health in prisons and young offender institutions?* The study objectives are to:

1. Identify the effects of peer-based interventions on offender health and the determinants of offender health.

2. Review and synthesise evidence for the cost and cost effectiveness of peer-based interventions in prison settings.

3. Examine the positive and negative impacts of delivering peer-based interventions on health services within prison settings.

4. Compare the effects of peer-based approaches to professionally led approaches.

5. Produce a framework that identifies types of intervention, when provided (with reference to offender healthcare pathways), and outcomes.

2 BACKGROUND

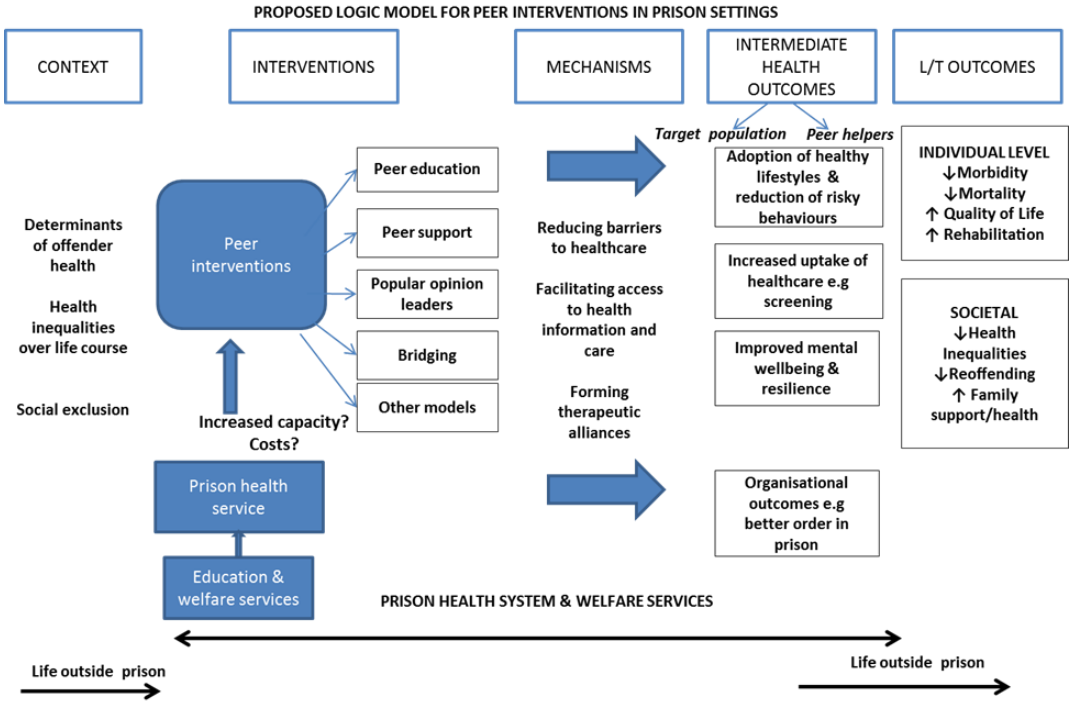
The responsibilities for healthcare in prison establishments in England and Wales rest with the NHS, which has a duty to ensure that services provided are equivalent to those in the community. Her Majesty's Prison Service acknowledges that prison itself can be a deleterious experience for those admitted into custody and there can be adverse health impacts. The mental health of the prison population (Fazel and Danesh, 2002, Watson et al., 2004), coupled with the evidence that prisoners are more likely to engage in risky health behaviours is of particular concern. For example, most people enter prison with a background of drug and alcohol misuse (Social Exclusion Unit, 2002) and smoking is a prominent health issue (MacAskill and Hayton, 2007).

The rationale for peer interventions, reiterated in the Bradley review (Bradley, 2009) and the Patel report (Lord Patel, 2010), is that they promote greater equity of access as peers can communicate health messages, give support or overcome barriers to health. The breadth of peer support interventions includes listener schemes, substance misuse

peer support, parenting peer support, anti-bullying and anger management peer support and employment, education and housing peer support. More recently, Health Trainer schemes have emerged as a feature of prison health services (Sirdfield et al., 2007).

To date there has been no systematic review of the effectiveness of peer interventions in criminal justice settings. Some research has demonstrated the benefits of peer education for offender health. Reported outcomes include: increased knowledge of HIV (Bryan et al., 2006, Ross et al., 2006), increases in condom use (Grinstead et al., 1999, Magura et al., 1994), increased inclination to practice safer drug using behaviours (Collica, 2002) and decreases in prison suicide through peer listener programmes (Snow, 2002). Participation can result in psycho-social benefits for prison peer helpers, for example, an increased propensity to embrace law-abiding values (Devilly et al., 2005) and the potential to reintegrate successfully into the community through finding paid employment (Collica, 2002). Peer based programmes help to expand the range of health services on offer in the criminal justice system (Sirdfield et al., 2007), may improve the good order of the prison environment (Devilly et al., 2005), and ease the burden on professional staff who may lack time to deliver comprehensive health programmes (Devilly et al., 2005).

A logic model has been developed for the study that illustrates the associations between peer methods and potential health outcomes for individuals and health services. The premise is that multiple factors negatively affect offender health across the lifecourse, and although physical access to healthcare may be improved in prison, there remain psychosocial and environmental barriers that may prevent prisoners from achieving good health. The logic model will be used to make explicit the links between interventions, mechanisms and outcomes (Baxter et al., 2010) and the model will be refined during the review process. The study will use an initial categorisation based on a concept analysis of peer support in a healthcare setting (Casiday et al., 2008) and combine this with the results of a systematic scoping review on lay public health roles (South et al., 2010): peer education, peer support, popular opinion leaders and bridging models.



Review strategy: The systematic review will include quantitative, qualitative, cost-effectiveness and mixed methods studies. The design will use standard systematic review methodology to appraise evidence on effectiveness and cost-effectiveness (Higgins and Green, 2008, National Institute for Health and Clinical Excellence, 2009, Centre for Reviews and Dissemination, 2009) with input from experts in the field, in the form of steering and advisory groups and an expert symposium. There will be two elements to the review:

i. A systematic review of the effectiveness of peer based interventions
ii. A systematic review of the cost-effectiveness of peer based interventions

Both reviews will use systematic processes to search, retrieve and screen literature and to undertake validity assessment, with reference to appropriate review guidelines. The systematic review will include quantitative, qualitative and mixed methods studies. Synthesis of results will take place to produce a narrative synthesis for each research objective which links findings to the volume and methodological quality of the underpinning research.

In addition to the systematic reviews, an Expert Symposium will be held to gather expert opinion on whether and how peer–based approaches work within prisons and YOIs in England and Wales. The evidence heard at the symposium will supplement the data obtained from the systematic review of research studies and provide vital contextual information on the application of peer-based approaches within prison environments. Experts will be drawn from different fields including prison health services, NOMS, academic research, third sector organisations.

3 METHODS

Specific review questions:

1. What are the effects of peer-based interventions on *prisoner health and the determinants of prisoner health*?
2. What are the positive and negative impacts of delivering peer-based interventions on *health services* within prison settings?
3. How do the effects of peer-based approaches compare to those of professionally led approaches?
4. *What is the cost and cost effectiveness of peer-based interventions in prison settings?*

For question 1, we anticipate using mainly quantitative evidence of effects, but if there is also qualitative evidence of effects (e.g. interviews with prisoners about knowledge, attitudes and behaviour) this will also be included. Qualitative evidence on effect modifiers (e.g. appropriateness, acceptability, access) will be included in question 1 or question 3 as appropriate.

For question 2, we anticipate using mainly qualitative evidence, such as interviews with prison staff on organisational issues, and with others about recruitment or training, barriers and facilitating factors, as well as process evaluations and any quantitative evidence which reports outcomes for health services (rather than for prisoners).

For question 3, we anticipate using mainly quantitative comparative evaluations of peer versus professional approaches, but will include qualitative evidence of effects on (e.g.) knowledge, attitudes and behaviours and on effect modifiers (e.g. appropriateness, acceptability, access) if appropriate.

3.1 SYSTEMATIC REVIEW OF EFFECTIVENESS

Search strategy: The following sources will be searched: MEDLINE; PsycINFO; EMBASE: International Bibliography of Science (IBSS); ASSIA; Web of Knowledge; Sociofile; IDOX; Digital Dissertations; National Criminal Justice Reference Service Abstracts; Social Services Abstracts; Sociological Abstracts; DARE; TRoPHI; DoPHER; Health Evidence Canada; ORB Social Policy Database; Social Care Online; Cochrane and Campbell Collaboration Databases.

Search terms will draw on the systematic scoping review results (South et al 2010) with further search terms identified in consultation with the project steering group. See Appendix for sample search strategies.

The search will be limited to papers published since 1985[1] and will not be restricted to English language papers. Electronic contents lists of key journals (e.g. Journal of Correctional Health Care, Health Education & Behavior, Criminal Justice and Behavior), other publications (e.g. Prison Service Journal, the Insider, Insider Times) and conference proceedings will be searched (Hopewell et al. 2007).

Unpublished (grey) literature: This will be identified from the expert symposium, from conference and dissertation abstracts, reference lists of identified and key papers, hand searches of relevant book chapters, searches of OpenSigle, NHS Health Scotland Library; OpenGrey; Health Management Information Consortium; British Index to Theses; ETHOS; Google Scholar, Google and websites of relevant organisations (e.g. the Home Office), and contact with national and international experts such as: Offender Health Research Networks (OHRNs); Prison and Offender Research in Social Care and Health (PORSCH); Samaritans (Listeners scheme); National Offender Management Service (NOMS); PCTs (health trainers); Ministry of Justice; Prison Officers' Association (POA); Action for Prisoners Families; CLINKS; Prison Governors Association; Shannon Trust; HM Inspectorate of Prisons; Prison Ombudsman; OFSTED?; Core Quality Commission (CQC); Independent Monitoring Board (IMB); Royal College of Nursing Prison Group; National Network of Forensic Nurses; Private sector prison organisations e.g. CIRCO, CALYX;

[1] Listener schemes were implemented in the early 1990s so a cut off date of 1985 was chosen in order to capture any preliminary studies e.g. pilot schemes.

Prison Reform Trust; Howard League for Penal Reform; NOMS – drugs/ alcohol; Experts from literature search.

Practitioners and academics with expertise will be contacted via appropriate academic and practice mailing lists (public-health@jiscmail; health-services-research@jiscmail; health-promotion-academics@jiscmail; health-equity-network@jiscmail).

A hand-search of the reference lists of included papers will also be performed. Citation searches will be carried out on all included papers and on key papers such as relevant systematic reviews or other reviews of peer intervention literature. The expert symposium will help to identify further key publications and grey literature through liaison with experts in the field.

In order to keep to the project time plan, there will be a cut-off date for submission of the end of August 2012, after which any research arriving will not be included in the review. A preliminary list of included studies will be circulated to the project steering group and to a wider group of experts, including first authors of included studies, to check that no relevant studies (published or unpublished) have been missed. Where needed study authors will be contacted for additional or missing information.

Inclusion/exclusion criteria:

Population: Studies of prisoners resident in prisons and YOIs in any country, all ages, male and female are eligible for inclusion in the review. For review question 1, limited to those taking part in peer based interventions, whether peer helpers or programme recipients. For other objectives, studies involving the whole prison population, including staff, will be eligible for inclusion.

Intervention: Studies of peer based interventions, including peer education, peer support, peer mentoring, popular opinion leaders, befriending, peer counselling and self-help groups, operating within prisons and YOIs in any country will be eligible for inclusion in the review. Interventions will be aimed at improving or maintaining prisoner physical or mental health and wellbeing either directly (e.g. HIV awareness; listener schemes) or indirectly by addressing determinants of health within prison settings (e.g. basic literacy and life skills). Multicomponent interventions that include a peer to peer

element will be included. "Peer" includes prisoners and ex-prisoners, delivering interventions to prisoners.

Comparators: For review question 3, studies that compare peer and professionally led approaches to the same health or social problem will be eligible for inclusion. For all other objectives, studies with any or no comparator interventions (or usual care) will be eligible for inclusion.

Outcomes: For review question 1, studies reporting any effects of peer based interventions on prisoner health or determinants will be eligible for inclusion *e.g.* changes in physical or mental health or health behaviours, or determinants of health within the prison setting, such as social support, (literacy) skills, education, or service delivery. Qualitative studies that report organisational outcomes or views or perceptions of peer interventions, and process evaluations that report on implementation of peer evaluations will also be eligible for inclusion for review questions 2, 3, and 4. Studies that report only reoffending or other non-health outcomes will not be included.

Study designs:

Quantitative, qualitative and mixed method evaluations, with and without comparator groups, will be eligible for inclusion in the review. (For review question 3, a comparator group design is required). Included literature will be limited to reports of evaluations and will not include opinion pieces or raw data. Cross-sectional surveys will be excluded unless there is no other evidence to answer a review question. Published and unpublished reports will be eligible for inclusion.

Review question 1: Evaluations of peer interventions, which may be randomised controlled trials (RCTs), controlled trials, controlled before and after studies, single group before and after studies (cohort studies), interrupted time series, qualitative evaluations, or systematic reviews will be eligible for inclusion. They must report outcomes for prisoners. Linked process evaluations will also be eligible for inclusion.

Review question 2: Any of the study designs eligible for inclusion in question 1 are also eligible for inclusion on question 2, if they report outcomes for health services as well as or instead of outcomes for prisoners. Qualitative and process evaluations are also eligible for inclusion, and we expect that these will make up the bulk of the studies included for review question 2.

Review question 3: Evaluations which compare peer and professionally led services or interventions are eligible for inclusion for review question 3. This would include RCTs, controlled trials, controlled before and after studies, interrupted time series and systematic reviews. Qualitative studies are less likely to be included under review question 3, but cannot be entirely ruled out.

Review question 4: Economic evaluations (whether cost effectiveness, cost utility or cost benefit analyses) and cost-effectiveness reviews are eligible for inclusion for review question 4. The cost-effectiveness will also potentially draw on evidence from review questions 1, 2 and 3 to develop and populate an economic model.

Study selection process: Titles and abstracts from the literature search will be transferred to Endnote reference management software and deduplicated. Two reviewers will review each title and abstract and select studies that potentially meet the eligibility criteria. These papers will be obtained in full, and two reviewers will screen the full papers for inclusion, with any disagreements to be resolved by consensus with reference to the full papers and a third reviewer if necessary. The results of the abstract screening will be recorded in Endnote database, while results of the full paper screening will be recorded in an Excel spreadsheet and presented in an Appendix to the review, including the reason for excluding any paper.

Validity assessment: Appropriate validity assessment criteria will be developed for each included study design, utilising categories from the Cochrane Risk of Bias Assessment [Higgins 2008; CRD 2009] for quantitative and mixed methods studies and from Hannes 2011 for qualitative and mixed methods studies. There are a number of publications summarising ongoing research into critical appraisal and inclusion of qualitative evidence in systematic reviews (Dixon-Woods 2007; Mays and Pope 2000; Popay et al. 1998; Spencer et al. 2003) and it will be important to use methods and criteria appropriate to the type of research included.

Unpublished data from grey literature will be assessed using the same criteria as is used for published data.

Two reviewers will assess each study for validity using pre-agreed criteria on piloted forms. Disagreements will be resolved by consensus with reference to the original papers

and a third reviewer if necessary. For qualitative studies, discussion may be required with a qualitative methods and/ or a topic expert before decisions can be made. We will record the decision making process in a diary (either an Excel sheet or Word file), which can be updated by all reviewers throughout the review process. This will add to the validity of the evidence synthesis by making explicit some of the decisions made, particularly on the qualitative evidence, and may also be used for later sensitivity analysis (e.g. removing studies where there was disagreement about their inclusion, validity or content) (Pawson 2006).

Data extraction: Data will be extracted onto piloted electronic forms, which will contain different categories according to study design. The electronic forms will later contribute to a searchable database, which will be adapted at the end of the project for public use. All studies will be categorised according to the type(s) of data they contain and which objective(s) they address. Data extraction fields will include:

- Bibliographic details
- Population details e.g. age, sex, length of sentence/ length of stay, stage (e.g. just arrived/ about to leave); existing health problems (whether reported for peer helpers, programme recipients, or both); remand or sentenced; other details such as sex offenders; taking drugs etc
- Setting/ institution details e.g. high security/ open prisons, YOIs, country
- Intervention details e.g. health or social issue; method of delivery; intervention components; theoretical model if given; number/ length of contacts; definition of peer if given; definition of programme recipient if given; details of training and provider of training (e.g. NHS, Samaritans etc); recruitment (methods and criteria); support given and level of supervision (and who supports/ supervises); rewards
- Outcomes: all reported health related outcomes including negative outcomes, experienced by peer helpers, programme recipients and prison staff.

Detailed data extraction of quantitative data will take place onto Word tables and into meta-analysis software. Detailed extraction of qualitative data will take place into NVivo 9 software, using text conversion of pdf files to import the whole paper. Coding can then be applied to methodological and other potential sources of variation (such as

population, intervention and settings), as well as results, to allow data to be assembled in the most appropriate way. Data will be extracted by one reviewer and checked by a second reviewer, with disagreements resolved by consensus, with reference to the original papers and to a third reviewer and/ or other experts as required. The data extraction tables will be used to create evidence tables for each included study, and will be included as an appendix to the review.

3.2 SYSTEMATIC COST EFFECTIVENESS REVIEW

Search strategy: In addition to the databases identified for the effectiveness review, systematic searching will take place of the specialist health economic data NHS EED. Economics filters used by the NHS CRD to populate the NHS EED database will be adapted to other databases. The search strategy will draw upon work on retrieving cost information previously conducted at the NHS Centre for Reviews and Dissemination (Centre for Reviews and Dissemination, 2001) and will use the following terms: cost benefit, cost effectiveness, cost utility, cost consequences, cost minimisation, economic evaluation, quality of life, utility, incremental cost effectiveness analysis, incremental cost effectiveness ratio, net present value, incremental net benefit; combined with the search terms used in the effectiveness literature search strategy. Sensitive searching (e.g. economics [ec] as a floating subheading) will be used.

Study selection/ review process: All abstracts obtained by the computer search will be reviewed for relevance by two health economists. Any disagreement will be resolved in discussion with a third health economist based in the Academic Unit of Health Economics. All papers identified as relevant at the end of the abstract screening process will be obtained and entered into the quality assessment process.

Inclusion/exclusion criteria: The cost effectiveness review inclusion and exclusion criteria will be in line with the effectiveness review. Additionally the criteria will include papers reporting resource use/cost and/or outcome comparisons of peer-based interventions with standard care. The results of the abstract screening will be recorded in the Endnote database, including the reason for excluding any paper from the quality assessment stage of the review. Once papers selected for inclusion have been obtained, we will undertake a hand search of the reference lists to identify any potentially relevant papers not identified by the literature search. Any additional papers will be subjected to the

abstract review process prior to inclusion or exclusion from the quality assessment process.

Validity assessment: Any additional papers will be subjected to the abstract review process prior to inclusion or exclusion from the quality assessment process. The quality of each paper will be assessed using a modified version of the Drummond et al checklist (Drummond et al., 2005). For papers reporting economic evaluations alongside clinical trials, this will be supplemented with reference to the Good Practice Guidance produced by the ISPOR Task Force on Economic evaluations alongside clinical trials (Weinstein et al., 2003). For papers reporting cost effectiveness models, the checklist will be supplemented with reference to the checklist proposed by Sculpher et al and the Good Practice Guidance (Weinstein et al., 2003).

3.3 *EVIDENCE SYNTHESIS*

Evidence synthesis will use a range of approaches depending on the design of the included studies, including meta-analysis for quantitative studies (Higgins et al. 2008; CRD 2009; NICE 2009) if appropriate, and meta-ethnographic approaches for qualitative studies (Noblit and Hare 1988). A mixed method systematic review design similar to that used by the Evidence for Policy and Practice Information and co-ordinating (EPPI) Centre (Thomas and Harden, 2008) will be used to combine data from different study designs. Evidence will be initially synthesised by study type into two streams: quantitative and qualitative (for studies that use mixed methods, qualitative and quantitative data will be extracted and treated separately in the relevant streams).

Evidence from similar programmes in similar institutions will be combined, but it is expected that findings will be grouped by type of participant (e.g. prisoner or staff); health or social issue (e.g. HIV awareness); and type of institution e.g. evidence from YOIs and maximum security prisons will not be combined without first looking at evidence from each institution type separately. It is recognised that no two institutions are the same, so as much detail as possible about the institution will be extracted from the included studies and similarities and differences between institutions used to explore heterogeneity in findings. Each study will be looked at in terms of where the intervention occurs on the prisoner pathway, for instance first night, first few days, longer term or on leaving. Gender differences will also be explored where the data allows.

- Synthesis of quantitative data will be carried out and findings presented combined in a narrative synthesis, grouped by review objective and by outcome or theme. Preliminary searches suggest that statistical meta-analysis may not be appropriate due to clinical heterogeneity of study designs, outcomes and interventions, but it may still be possible to display quantitative results in Forest plots, without pooling data. If statistical meta-analysis were possible, studies would be combined using a fixed effects model to give relative risks with 95% CIs for binary outcomes and weighted or standardised mean differences with 95% CIs for continuous outcomes. Statistical heterogeneity would be examined using the chi-square and I-square statistics, with a chi-square p-value of >0.1 or a I-square value of >50% indicating statistical heterogeneity, in which case a random effects model would be used to combine data.

- Thematic synthesis using QSR NVivo software will be used to combine evidence from qualitative studies (Thomas and Harden 2008; Oliver et al 2005; Harden et al 2004)]. This will take place by two reviewers working independently in three stages which may overlap: free line-by-line coding of the findings of included studies; construction of 'descriptive' themes; and the development of 'analytical' themes (Thomas and Harden 2008). Coded text will be checked for consistency of interpretation between studies and between reviewers. Reviewers will collectively identify similarities and differences between the codes to start to group them into descriptive themes. Analytical themes will then be developed by two reviewers independently applying the review objectives to the descriptive theme (Thomas and Harden 2008).

Economic modelling of cost effectiveness: The results of the cost effectiveness review, together with the results of the effectiveness review will be used to inform an economic model. The model structure and population is likely to draw on evidence from a range of sources including, but not confined to, policy documents, papers identified in the initial effectiveness and cost effectiveness searches, other clinical evidence and clinical and professional opinion where data/evidence is not available.

The perspective and design of the decision analytical model will draw on this range of evidence. It is anticipated a societal perspective will be adopted that includes, for example, the impact on social justice and cross sector flows. The model is likely to be a decision tree or Markov or semi-Markov in design. Similarly the primary end-point of the

model will be informed by the range of evidence available. We will try, if possible and appropriate, to use QALYs derived in line with NICE guidance (NICE 2008).

It is anticipated that the resources in the short term will include those associated with provision of the intervention (for example, training costs) together with health care resources; longer term will include use of health and social care resources together with receipt of benefits and contact with probation and police services. Previous studies, particularly in the area of mental health, have identified a range of resources used over both the short term and a lifetime. These have included health services, social and voluntary sector services (including accommodation), criminal justice, education and social security benefits (Byford et al 2009). We will also draw on this literature in this area to identify potential resource use. It is anticipated that the resources will be valued using a range of sources including PSSRU (http://www.pssru.ac.uk/), NHS Reference Costs (http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_123459) and National Audit Office estimates (e.g. the cost of re-offending) (http://web.nao.org.uk/).

The quality of a model falls into three categories: model structure, data used as inputs to models, and model validation (Weinstein et al., 2003). Whilst evidence for developing and populating a model can come from many different sources; the decision to develop an economic model will be made based on the criteria laid out by Report of the ISPOR Good Research Practices Task Force (Weinstein et al., 2003), specifically that evidence available will mean the model has the potential to reveal the relation between assumptions and outcomes and that these assumptions include structural assumptions about causal linkages between variables; quantitative parameters including efficacy and effectiveness, health state utilities, and unit costs.

***Combining evidence from all study designs**:*

Qualitative and quantitative syntheses will then be combined for the effectiveness review, using tools and techniques from the narrative synthesis toolbox (Popay et al. 2006), to produce a narrative synthesis for research objectives 1,3,4,5 which links findings to the volume and methodological quality of research. Evidence tables for each study will be presented as an Appendix to the report. A matrix will then be developed for all the research objectives, including the results from the cost effectiveness review (objective 2). Evidence statements will be produced from the matrix and these will be

assembled within each review question before a narrative summary is written. . Prominence will be given to findings where there is strong evidence, whether this is from qualitative or quantitative research findings, or from agreement between them. Results will be mapped back to logic model to identify modifying factors and their association with outcomes in a revised framework (Baxter et al. 2010).

REFERENCES

BAXTER S, KILLORAN A, KELLY MP, GOYDER E. 2010. Synthesizing diverse evidence: the use of primary qualitative data analysis methods and logic models in public health. Public Health. 2010;124:99-106

BENZIES, K., PREMJI, S., HAYDEN, A. & SERRETT, K. 2006. State of the Evidence Reviews: Advantages and Challenges of Including Grey Literature. Worldviews on Evidence-Based Nursing, 3, 55-61.

BRADLEY, K. 2009. The Bradley report. Lord Bradley's review of people with mental health problems or learning disabilities in the criminal justice system. London: Crown.

BRYAN, A., ROBBINS, R. N., RUIZ, M. S. & O'NEILL, D. 2006. Effectiveness of an HIV prevention intervention in prison among African Americans, Hispanics, and Caucasians. Health Education & Behavior, 33, 154-177.

BYFORD S, BARRETT B, AGLAN A, HARRINGTON V, BURROUGHS H, KERFOOT M, HARRINGTON RC. 2009. Lifetime and current costs of supporting young adults who deliberately poisoned themselves in childhood and adolescence. Journal of Mental Health; 18(4); 297-306

CASIDAY, R., KINSMAN, E., FISHER, C. & BAMBRA, C. 2008. Volunteering and health; what impact does it really have? London: Volunteering England.

CENTRE FOR REVIEWS AND DISSEMINATION 2009. Systematic Reviews: CRD's guidance for undertaking reviews in health care., York, University of York.

CENTRE FOR REVIEWS AND DISSEMINATION 2001. Undertaking systematic reviews of research on effectiveness. CRD's guidance for those carrying out or commissioning reviews. (2nd Edition). York: Centre for Reviews and Dissemination.

COLLICA, K. 2002. Levels of knowledge and risk perceptions about HIV/AIDS among female inmates in New York State: can prison-based HIV programs set the stage for behavior change? The Prison Journal, 82, 101-124.

DEPARTMENT OF HEALTH 2010. Volunteering: involving people and communities in delivering and developing health and social care services. Department of Health.

DEVILLY, G. J., SORBELLO, L., ECCLESTON, L. & WARD, T. 2005. Prison-based peer-education schemes. Aggression and Violent Behaviour, 10, 219-240.

DIXON-WOODS M, BOOTH A, SUTTON AJ. 2007. Synthesizing qualitative research: a review of published reports. Qualitative Research 7(3): 375-422.

DIXON-WOODS M, SUTTON AF, SHAW RL, MILLER T, SMITH J, YOUNG B, BONAS S, BOOTH A, JONES DR. 2007. Appraising qualitative research for inclusion in systematic reviews: a quantitative and qualitative comparison of three methods. Journal of Health Service Research and Policy 12: 42-7.

DRUMMOND, M., SCULPHER, M., TORRANCE, G., O'BRIEN, B. & STODDART, G. 2005. Methods for the economic evaluation of health care programmes. 3rd edition.

FARRANT, F. & LEVENSON, J. 2002. Barred citizens: volunteering and active citizenship by prisoners. London: Prison Reform Trust.

FAZEL, S. & DANESH, J. 2002. Serious mental disorder in 23,000 prisoners: a systematic review of 62 surveys. The Lancet, 359, 545-550.

GRINSTEAD, O. A., ZACK, B., FAIGELES, B., GROSSMAN, N. & BLEA, L. 1999. Reducing postrelease HIV risk among male prison inmates: A peer led intervention. Criminal Justice and Behavior, 26, 453-465.

HANNES K. 2011. Chapter 4: Critical appraisal of qualitative research. In: NOYES J, BOOTH A, HANNES K, HARDEN A, HARRIS J, LEWIN S, LOCKWOOD C (EDITORS), *Supplementary Guidance for Inclusion of Qualitative Research in Cochrane Systematic Reviews of Interventions.* Version 1 (updated August 2011). Cochrane Collaboration Qualitative Methods Group, 2011. Available from URL http://cqrmg.cochrane.org/supplemental-handbook-guidance

HARDEN A, GARCIA J, OLIVER S, REES R, SHEPHERD J, BRUNTON G, et al. 2004. Applying systematic review methods to studies of people's views: an example from public health research. Journal of Epidemiology and Community Health, 58(795-800).

HAWKER S, PAYNE S, KERR C. 2002. Appraising the evidence: reviewing disparate data systematically. Qualitative Health Research, 12(9):1284-99.

HIGGINS J, GREEN S. 2008. Cochrane Handbook for Systematic Review of Interventions version 5.0.1: The Cochrane Collaboration.

HOPEWELL S, MCDONALD S, CLARKE M, EGGER M. 2007. Grey literature in meta-analyses of randomized trials of health care interventions. Cochrane Database of Systematic Reviews. 2007(2).

LORD PATEL 2010. The Patel report: Reducing drug-related crime and rehabilitating offenders. London: Prison Drug Treatment Strategy Review Group.

MACASKILL, S. & HAYTON, P. 2007. Stop smoking support in HM prisons: the impact of nicotine replacement therapy. Stirling: University of Stirling Open University.

MAGURA, S., KANG, S. Y. & SHAPIRO, J. L. 1994. Outcomes of intensive AIDS education for male adolescent drug users in jail. Journal of Adolescent Health, 15, 457-463.

MAYS N, POPE C. 2000. Qualitative research in health care Assessing quality in qualitative research. BMJ, 320:50-52.

NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE. 2008. Guide to methods of technology appraisal. London: National Institute for Health and Clinical Excellence.

NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE. 2009. Methods for the development of NICE public health guidance (second edition). London: National Institute for Health and Clinical Excellence.

NOBLIT G, HARE R. 1988. Meta-ethnography: synthesising qualitative studies. Newbury Park, CA: Sage.

OLIVER S, HARDEN A, REES R, SHEPHERD J, BRUNTON G, GARCIA J, et al. 2005. An Emerging Framework for Including Different Types of Evidence in Systematic Reviews for Public Policy. Evaluation, 11(4):428-46.

PAWSON R. 2006. Evidence-based Policy: A Realist Perspective. London: Sage.

POPAY J, ROGERS A, WILLIAMS G. 1998. Rationale and Standards for the Systematic Review of Qualitative Literature in Health Care. Qual Health Research 1998, 8: 341-51.

POPAY J, ROBERTS H, SOWDEN A, PETTICREW M, ARAI L, RODGERS M, et al. 2006. Guidance on the Conduct of Narrative Synthesis in Systematic Reviews. A product from the ESRC Methods Programme. Lancaster: Institute for Health Research, Lancaster UniversitY.

ROSS, M. W., HARZKE, A. J., SCOTT, D. P., MCCANN, K. & KELLEY, M. 2006. Outcomes of project wall talk: an HIV/AIDS peer education program implemented within the Texas state prison system. AIDS Education and Prevention, 18, 504-517.

SIRDFIELD, C., BEVAN, L., CALVERLEY, M., MITCHELL, L., CRAVEN, J. & BROOKER, C. 2007. A guide to implementing the new futures health trainer role across the criminal justice system. Lincoln: University of Lincoln.

SNOW, L. 2002. The role of formalised peer-group support in prisons. In: TOWL, G., SNOW, L. & MCHUGH, M. (eds.) Suicide in prisons. Oxford: BPS Blackwell.

SOCIAL EXCLUSION UNIT 2002. Reducing re-offending by ex-prisoners. London: Cabinet Office.

SOUTH J, MEAH A, BAGNALL A-M, KINSELLA K, BRANNEY P, WHITE J, GAMSU M. 2010. People in Public Health - a study of approaches to develop and support people in public health roles. Final Report: NIHR Service Delivery and Organisation Programme.

SPENCER L, RITCHIE J, LEWIS J ET AL. et al. 2003. Quality in Qualitative Evaluation: a framework for assessing research evidence: a framework for assessing research evidence. Government chief social researcher's office.

THOMAS J, HARDEN A. 2008. Methods for the thematic synthesis of qualitative research in systematic reviews. BMC Medical Research Methodology, 8(45).

WATSON, R., STIMPSON, A. & HOSTICK, T. 2004. Prison health care: a review of the literature. International Journal of Nursing Studies, 41, 119-128.

WEINSTEIN, M., O'BRIEN, B., HORNBERGER, J., JACKSON, J., JOHANNESSON, M., MCCABE, C. & AL., E. 2003. Principles of good practice for decision analytic modeling in

health-care evaluation: report of the ISPOR Task Force on Good Research Practices - Modeling Studies. Value in Health, 6, 9-17.

APPENDIX: SEARCH STRATEGIES

Database: Ovid MEDLINE(R) <1946 to February Week 5 2012>Search Strategy:

---

1 prisons/ or concentration camps/ (7003)

2 Criminals/ (433)

3 Prisoners/ (10890)

4 (secure adj2 (unit or units or facility or institution* or facilities or centre* or center*)).tw. (299)

5 (correctional adj2 (units or unit or facility or institution* or centre* or center* or system or facilities)).tw. (963)

6 or/1-5 (16788)

7 Counseling/ (25061)

8 Social Support/ (43650)

9 motivation/ or life style/ (79924)

10 Therapeutic Community/ (1923)

11 Psychotherapy, Group/ (11093)

12 Health Education/ (48750)

13 Friends/ (1942)

14 self efficacy/ (9437)

15 Role Playing/ (1888)

16 Peer Group/ (11707)

17 Self-Help Groups/ (7209)

18 Focus Groups/ (12804)

19 health promotion/ or healthy people programs/ or weight reduction programs/ (44939)

20 or/7-19 (265924)

21 ((prison* or jail* or penitentiar* or bastile* or offender* or reoffend* or convict or convicts or convicted or inmate* or detainee* or cellmate* or incarcarated or incarcaration or felon*) adj6 ((group* adj2 therap*) or (group* adj2 intervention*) or (group* adj2 treatment*) or (group* adj2 education*) or (group* adj2 work*) or (group* adj2 meeting*) or (group* adj2 session*))).tw. (76)

22 (juvenile adj1 delinquen* adj6 ((group adj2 intervention*) or (group* adj2 treatment*) or (group* adj2 education*) or (group* adj2 work*) or (group* adj2 meeting*) or (group* adj2 session*) or (group* adj2 therap*))).tw. (6)

23 ((prison* or jail* or penitentiar* or bastile* or offender* or reoffend* or convict or convicts or convicted or inmate* or detainee* or cellmate* or incarcarated or incarcaration or felon*) adj6 (mentor* or support* or training or "self help" or volunt* or program* or focus or listen* or buddy or buddies or friend* or befriend* or bridging or "lay people")).tw. (1445)

24 (juvenile adj1 delinquen* adj6 (mentor* or support* or training or "self help" or volunt* or program* or focus or listen* or buddy or buddies or friend* or befriend* or bridging or "lay people")).tw. (25)

25 ((prison* or jail* or penitentiar* or bastile* offender* or reoffend* or convict or convicted or convicts or inmate* or detainee* or cellmate* or incarcarated or incarcaration or felon*) adj40 peer*).tw. (84)

26 (juvenile adj1 delinquen* adj40 peer*).tw. (17)

27 (secure adj2 (unit or units or facility or institution* or facilities or centre* or center*) adj6 ((group* adj2 therap*) or (group* adj2 intervention*) or (group* adj2 treatment*) or (group* adj2 education*) or (group* adj2 work*) or (group* adj2 meeting*) or (group* adj2 session*))).tw. (1)

28 (secure adj2 (unit or units or facility or institution* or facilities or centre* or center*) adj6 (mentor* or support* or training or "self help" or volunt* or program* or focus or listen* or buddy or buddies or friend* or befriend* or bridging or "lay people")).tw. (14)

29 (correctional adj2 (units or unit or facility or institution* or centre* or center* or system or facilities) adj6 ((group* adj2 therap*) or (group* adj2 intervention*) or (group* adj2 treatment*) or (group* adj2 education*) or (group* adj2 work*) or (group* adj2 meeting*) or (group* adj2 session*))).tw. (0)

30 (correctional adj2 (units or unit or facility or institution* or centre* or center* or system or facilities) adj6 (mentor* or support* or training or "self help" or volunt* or program* or focus or listen* or buddy or buddies or friend* or befriend* or bridging or "lay people")).tw. (62)

31 or/21-30 (1674)

32 6 and 20 (1347)

33 31 or 32 (2776)

34 limit 33 to yr="2010" (176)

Searches in ProQuest 13/3/12

ASSIA:

Subject Search 1:
EXACT("Offenders" OR "Dangerous offenders" OR "Recidivists" OR "Drunken offenders" OR "War criminals" OR "Juvenile offenders" OR "Young offenders" OR "Young adult offenders" OR "Violent offenders" OR "Sex offenders" OR "Remand offenders" OR "Prisoners") = 8559
EXACT("Penal institutions" OR "Maximum security prisons" OR "Prisons" OR "Remand prisons" OR "Secure units") OR EXACT("Prison sociology" OR "Prison service") = 2076
EXACT("Long term prisoners") = 15
all(correctional NEAR/6 (unit OR units OR facilit* OR institution* OR centre* OR center*)) = 440
} = 10212

Subject Search 2:

EXACT("Therapeutic communities") = 700
EXACT("Selfcounselling" OR "Cognitive behavioural counselling" OR "Peer group counselling" OR "Counselling" OR "Crosscultural counselling" OR "Pretest counselling" OR "Re-evaluation counselling" OR "Rehabilitation counselling" OR "Educational guidance" OR "Group counselling" OR "Long term counselling" OR "Multicultural counselling") = 3609
EXACT("Counsellors") = 537
EXACT("Social support" OR "Perceived social support") = 3237
EXACT("Analytical group psychotherapy" OR "Psychodynamic group psychotherapy" OR "Group psychotherapy") = 902
EXACT("Lifestyle" OR "Health Promoting Lifestyle Profile") = 1106
EXACT("Intrinsic motivation" OR "Motivation" OR "Extrinsic motivation") = 3113
EXACT("Friends") = 646
EXACT("Peer supervision" OR "Peer instruction" OR "Peer helping programmes" OR "Peer groups") = 548
EXACT("Selfhelp programmes" OR "Selfhelp groups") = 488
EXACT("Focus groups" OR "Discussion groups" OR "Fitness groups") = 483
EXACT("Selfefficacy") = 1695
EXACT("Role models") = 150
EXACT("Role play") = 100
EXACT("Listening therapy" OR "Listening") = 230 **} = 17058**

Search 1 and Search 2 = 307

Text searches

all((prison* or jail* or penitentiar* or bastile* or offender* or reoffend* or convict or convicts or convicted or inmate* or detainee* or cellmate* or incarcarated or incarcaration or felon*) near/6 ((group* near/2 therap*) or (group* near/2 intervention*) or (group* n/2 treatment*) or (group* n/2 education*) or (group* n/2 work*) or (group* n/2 meeting*) or (group* n/2 session*))) = 199
all((juvenile n/1 delinquen*) n/6 ((group* NEAR/2 therap*) OR (group* NEAR/2 intervention*) OR (group* NEAR/2 treatment*) OR (group* NEAR/2 education*) OR (group* NEAR/2 work*) OR (group* NEAR/2 meeting*) OR (group* NEAR/2 session*))) = 3
all((prison* OR jail* OR penitentiar* OR bastile* OR offender* OR reoffend* OR convict OR convicts OR convicted OR inmate* OR detainee* OR cellmate* OR incarcarated OR incarcaration OR felon*) NEAR/40 peer*) = 196
all((juvenile n/1 delinquen*) NEAR/40 peer*) = 42
all((secure n/2 (unit or units or facility or institution* or facilities or centre* or center*)) NEAR/6 ((group* NEAR/2 therap*) OR (group* NEAR/2 intervention*) OR (group* NEAR/2 treatment*) OR (group* NEAR/2 education*) OR (group* NEAR/2 work*) OR (group* NEAR/2 meeting*) OR (group* NEAR/2 session*))) = 1
all((correctional n/2 (units or unit or facility or institution* or centre* or center* or system or facilities)) NEAR/6 ((group* NEAR/2 therap*) OR (group* NEAR/2 intervention*) OR (group* NEAR/2 treatment*) OR (group* NEAR/2 education*) OR (group* NEAR/2 work*) OR (group* NEAR/2 meeting*) OR (group* NEAR/2 session*))) = 2

all((secure NEAR/2 (unit OR units OR facility OR institution* OR facilities OR centre* OR center*)) NEAR/40 peer*) = 4
all((correctional n/2 (units or unit or facility or institution* or centre* or center* or system or facilities)) NEAR/40 peer*) = 11
all((prison* OR jail* OR penitentiar* OR bastile* OR offender* OR reoffend* OR convict OR convicts OR convicted OR inmate* OR detainee* OR cellmate* OR incarcarated OR incarcaration OR felon*) NEAR/6 (mentor* OR support* OR training OR "self help" OR volunt* OR "focus group" OR listen* OR buddy OR buddies OR friend* OR befriend* OR bridging OR "lay people")) = 815
all((juvenile NEAR/1 delinquen*) NEAR/6 (mentor* OR support* OR training OR "self help" OR volunt* OR "focus group" OR listen* OR buddy OR buddies OR friend* OR befriend* OR bridging OR "lay people")) = 15
all((correctional NEAR/2 (units OR unit OR facility OR institution* OR centre* OR center* OR system OR facilities)) NEAR/6 (mentor* OR support* OR training OR "self help" OR volunt* OR "focus group" OR listen* OR buddy OR buddies OR friend* OR befriend* OR bridging OR "lay people")) = 12
all((secure NEAR/2 (unit OR units OR facility OR institution* OR facilities OR centre* OR center*)) NEAR/6 (mentor* OR support* OR training OR "self help" OR volunt* OR "focus group" OR listen* OR buddy OR buddies OR friend* OR befriend* OR bridging OR "lay people")) = 25
} = 1226

Subject searches + text searches = 1465