

WHAT WORKS: CRIME REDUCTION SYSTEMATIC REVIEW SERIES

PROTOCOL FOR A TWO STAGE REVIEW

**Systematic map of police first response to people with
mental health problems**

**Systematic review of the impacts of police diversion (pre-
arrest) into mental health services for people with mental
health problems**

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1. Background

1.1. Purpose and rationale for a map and review

The management of people with mental health problems who come into contact with the police is a particularly complex issue because such individuals may require, intervention, treatment or support from both the mental health and Criminal Justice Systems (CJS). In the UK and other countries, there has been a move towards the 'de-institutionalisation' of people with mental illness from the 1980s. This has meant that treatment and support of people with mental health issues increasingly takes place within the community and the police are often the first point of professional contact for people experiencing a mental health crisis, functioning as 'gatekeepers' to services more suited to these clients' needs. It has been estimated that 15% of police contacts in the UK involve a mental health concern (Bather, Fitzpatrick and Rutherford (2008). However, it is also estimated that in excess of 70% of UK prisoners, including both sentenced prisoners and those on remand, have at least one mental health disorder (Birmingham 2003). Moreover, 75% of all UK prisoners have a dual diagnosis (mental health problems combined with alcohol or drug misuse) (Department of Health (2009). These statistics suggest a much higher than recorded proportion of police contacts involve people with mental health concerns.

Economic impacts of mental health problems on the criminal justice system

Mental ill-health has been estimated to cost more than £105 billion per annum in England alone in 2009-10 (>£113 billion in 2015 prices), including costs to the NHS and those associated with corollary adverse impacts on educational and employment outcomes, productivity, and increased crime (Department of Health 2011). A 2007 report estimated that £1.6 billion is spent annually arresting, convicting, imprisoning and supervising people with identified mental health problems (Corner et al 2007). Processing adult offenders with mental health problems through the criminal justice systems has been found to absorb, on average, more resources (including police, court, prison and probation services), with corollary higher costs, than processing those without mental health problems who have committed an equivalent offence (Corner et al 2007). Similarly, treating the physical health issues of patients with a mental health problems has been estimated to impose up to 45% higher costs on the health system than treating those without, even after the cost of treating the mental health issue has been excluded (Welch et al 2009, Naylor et al 2012).

Use of police custody

For the majority of contacts, police can resolve a situation without the need for arrest, but there are two ways in which a person with mental health problems may come into contact with police officers and be taken into custody. An officer may arrest the individual where an offence has been committed or suspected, and take into police custody for formal charging or if the person is assessed to be in urgent and immediate need of care or control, the police officer may detain the person under section 136 of the Mental Health Care act 2007 and taken to a place of safety.

Both the *Code of Practice for England* and the *Code of Practice for Wales* state that police custody should be used as a place of safety only in “exceptional” circumstances. However, police stations are in practice often used as a ‘place of safety’ rather than, for example, an accident and emergency department, due to their capacity to securely detain such individuals (Docking et al., 2008). In addition, designated NHS Mental Health Section 136 ‘suites’ are often unavailable, either due to overcrowding or insufficient staff (HMIC, 2013). It is estimated that each year in the UK, as many as 11,000 people with mental health needs are detained in a police station as a ‘place of safety’ (HMIC, 2013) under the Mental Health act 2007, section 136.

Such an approach may, however, be inappropriate for a number of reasons: for example, police stations and holding suites are often crowded and chaotic places, which can be frightening and disorienting for vulnerable individuals and the required psychiatric care is often not readily available.

In response to this, there is increasing interest among criminal justice and mental health agencies, developing initiatives designed to improve relationships between police and people with mental health problems, reduce unnecessary arrests, reduce the use of inappropriate detentions under the mental health act section 136, and ultimately reduce the criminalisation of mental health problems.

Models of police response

In the UK these initiatives have been based on two main models of specialised police responses for people with mental health problems that originated in the US. These two most prevalent models of specialized police responses (SPR) has been crisis intervention teams (CIT) and co-responder teams. The CIT programme came into being in Memphis, Tennessee in 1988 through partnership between the National Alliance on Mental Illness (NAMI) and the Memphis police, in the wake of a tragic incident in which police had killed an individual presenting with a mental disorder. This ‘Memphis Model’ approach is based on training officers to recognise persons with symptoms of mental illness, providing them with tools to diffuse potentially inflammatory situations and facilitate links to appropriate support or treatment.

The co-responder approach was developed in Los Angeles in the 1980s, and was designed to “maximise the chance of individuals in crisis who came into contact with police being connected with appropriate treatment”. This was achieved by forging links with community mental health services and partnering police officers with mental health professionals.

UK based examples of co-responding model of specialized police response include Street triage, and co-location of mental health professionals in police stations.

Link schemes and Liaison and Diversion schemes.

Similar to the co-responder approach, police can work with community outreach teams to alert them to people with mental health and other needs in the community. These agencies work closely with neighbourhood police officers and also aim to link people with mental health problems to the services they need in order to break

harmful cycles of disengagement from mental health care and mental health crisis care services, and involvement in the criminal justice system. (Accendo 2013)

Liaison and Diversion services involve close working with health professionals, towards the joint commission of services between police and health. The Offender Health Collaborative (OHC) has been set up as a working collaboration between six specialist organisations: Nacro, the crime reduction charity, Revolving Doors Agency, Centre for Mental Health, Institute for Mental Health, NHS Confederation and Cass Business School. It has been commissioned by NHS England to develop an operating model for liaison and diversion. In consultation with the Department of Health and other stakeholders, the OHC defined the service as

“...a process whereby people of all ages in contact with the youth and criminal justice systems are screened and where appropriate assessed or referred for assessment, so that those with mental health problems, learning disabilities, cognitive disorders, substance misuse problems and other vulnerabilities are identified *as soon as possible in the justice pathway*” (Riggs, 2014)

These approaches, or variations thereon, have since been adopted in many other jurisdictions in the US (Reuland, 2004) and also throughout Europe and Australia

Diversion into mental health services

Police officers have long had discretionary powers to divert individuals, including those with mental health problems, away from the criminal justice system. Police cautions can be issued instead of arrest, usually to people who are first-time offenders. Individuals receiving cautions are also required to accept responsibility for their actions to avoid arrest and a criminal record, and may be conditional, such as requiring restoration be made to the victim in the form of a written apology, or that the offender attends a treatment programme.

People with mental health problems are more likely to enter the criminal justice system than people without mental health problems, and are overrepresented in the criminal justice system. In parallel to attempts to improve interactions between police and people with mental health problems by changing attitudes, increasing knowledge and skills, and inter-agency working with mental health professionals, there has also been an increasing interest in police using their existing powers to act as “gatekeepers”, in order to divert people with mental health problems into more appropriate community-based care and away from the criminal justice system altogether. This reflects more widespread recognition in recent years that many contacts with police among this client group can be directly attributable to the mental health problems. For example, minor disorder offences and nonviolent offences may result from atypical behaviour, a mental health crisis, or mental health problems with concurrent drug and/ or alcohol addictions.

The theory underpinning diversion into treatment is that, compared with legal punishment, treatment will be more effective in reducing the overrepresentation of people with mental health problems in the criminal justice system. Diversion from the

criminal justice system into specialist mental health services also offers the opportunity to tailor treatment to the needs of the person with mental health problems, whereas entry into the criminal justice pathway would only delay access to appropriate treatment and may even exacerbate the person's mental health condition. Diversion into treatment is therefore expected to reduce minor non-violent offences attributable to unmet mental health needs and to reduce costs to the criminal justice system.

A programme logic model overleaf describes how these interrelated hypothesis would work in a pre-arrest diversion programme.

Three interrelated hypotheses

1. People with mental health problems are over represented in the criminal justice system.
2. Some offences, such as public disorder offences, or anti-social behaviour may be attributable to a crisis of mental health itself. Offences are usually minor leading to periods of time in police custody, short sentences. the lack of availability or delay of treatment of the underlying causes of these minor offences and leading to a “revolving door” phenomena. Contact with the criminal justice system because of mental health problems leads to the criminalization of the mental illness and the associated stigma with gaining a criminal record, effecting future life chances, such as gaining employment and community participation.
3. Police (or professionals working with the police) who can recognise mental health needs in an individual suspected of such an offence can exercise their discretion and choose not to arrest the individual but instead to divert an individual away from the criminal justice system into mental health care. This diversion and engagement with mental health care will prevent future incidents of offences of this kind, improve the metal health status of the diverted individual and increase community safety.

MODELS	INPUTS	OUTPUTS			OUTCOMES		
		Participants	Activities	products	Short term	- intermediate-	long term
Crisis intervention teams (CIT) Co-responding Police and mental health professionals Street triage Link scheme Neighbourhood officers Liaison and diversion teams	Training of police officers Training of call handlers Office space Cost of implementation Partnership working Police time Mental health professionals time	People with mental health problems who are known to mental health services People with mental health problems who are not known to mental health services Police staff Mental health staff Other services advisors	De-escalation of crisis Transfer to mental health care facility Transfer to police station for assessment	Mental health care assessment Mental health care treatment Mental health care plus other services	Access mental health care Access to other services Increased mental well-being Alleviation of crisis Increased knowledge and skills of police officers Reduce use of police time Improved quality of interaction	Reduce crime Partnership working Mental illness recovery/ management Cost transfers between CJS and health	Increased community safety Decriminalization of people with mental illness Cost savings in CJS Procedural justice/ legitimacy

In the UK, the Lord Bradley Review (Bradley 2009) has prompted renewed interest in the effectiveness of diversion into community-based alternatives (The Scottish Association for Mental Health Scotland 2014; Revolving Door Agency 2013). Informed by recommendations from this review, successive UK coalition and conservative governments have responded by committing £25 million to locating mental health nurses in police stations and courts (liaison and diversion schemes, RAND evaluation forthcoming), with the dual aims of getting the right treatment to people with mental health problems (and thereby limiting unnecessary contact with the criminal justice system), and reducing reoffending.

When to divert

A conceptual framework that is widely used by local drug alcohol and mental health agencies in the United States (US) illustrates the points at which people with mental health problems interact with, and can be intercepted and diverted from, the criminal justice system (Summit County (Ohio), Alcohol, Drug Addiction and Mental Health Services Board and National GAINS Center for People with Co-occurring Disorders in the Justice System 2003; Munetz & Griffin 2006). This model can be used as a framework to map current services, and to plan and deliver coordinated services. The model anticipates a declining number of people at each intercept point from first contact to re-entry.

As illustrated by Figure 1, the points of intercept (diverting people away from the CJS) are as follows:

Intercept 1. The first opportunity to intercept and divert away from the criminal justice pathway is before an arrest takes place and the person is charged and taken into custody (or pre-booking).

This first contact is with police and other emergency responders working with them, such as co-responding police and mental health workers, liaison and diversion services, and crisis intervention teams (CIT).

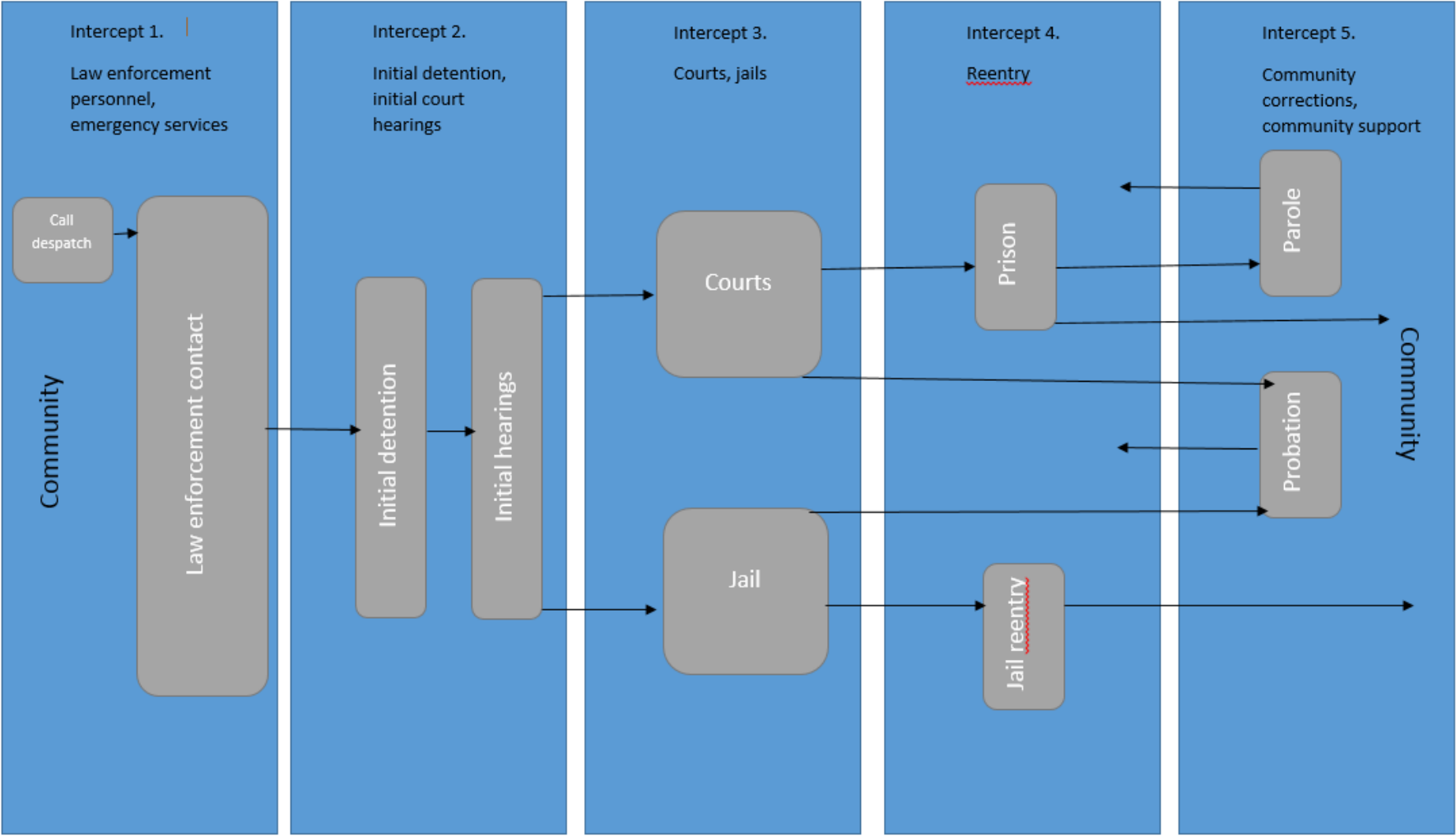
Intercept 2. Diversion can take place after arrest (post-booking) and at the point of a first hearing or pre-trial services. Examples include the UK criminal justice liaison and diversion programmes.

Intercept 3. Diversion takes place within regular courts or specialist problem solving courts that divert people with mental health problems into mental health services rather than prison.

Intercept 4. This diversion point uses transitional support services to facilitate the reintegration of people with mental health issues into the community on re-entry from the courts and/or prison systems.

Intercept 5. This final point of intercept ensures that people with mental illness are provided with community-based mental health care and support, such as assertive community outreach (ACT) – a mental health community based case management team for people with severe mental illness.

Figure 1. Sequential intercept model



Intercept 1: Pre arrest Diversion

The economic case for pre-arrest diversion

In economic terms, pre-arrest diversion has multiple potential outcomes that could combine to produce a positive incremental net benefit to society, *if* the incremental value that accrues from any beneficial effects of intervention, such as crime reduction or improvements in participants' mental health, exceeds the incremental costs of providing the service, compared with alternatives and over a time horizon that is sufficiently long to capture all important costs and effects. Incremental value deriving from the beneficial effects of pre-arrest diversion could plausibly produce net savings both in the short-term (e.g. flowing from reductions in the immediate use of criminal justice services following offences just committed) and in the longer-term (e.g. flowing from reductions in future use of criminal justice and/or community mental health services, if fewer offenses were committed and/or if [sustained] improvements in mental health were realised).

However, because pre-arrest diversion involves diverting people from the criminal justice system into mental health services, this will inevitably shift resource use and associated costs of treatment in the same direction in the short-term (albeit the short-term costs of treatment of offenders by community mental health services might be expected to be lower than those of treatment by alternative pathways through the criminal justice system). In other words, up-front costs and cost savings can be expected to accrue disproportionately over time within and across these two adjacent systems. Therefore, the extent to which pre-arrest diversion is judged favourably from an economic perspective is likely to depend on: overall impacts on short- and longer-term incremental costs (resource use) and effects within and across the criminal justice and health and social care systems; the distribution of incurred costs (including those associated with changes in resource use flowing from the effects of the intervention) between these two systems; and the perspective of those making the resource allocation decision (i.e. whether the decision makers have a remit to consider impacts on resource use and associated costs in one, or both, of these systems).

The need for a systematic review

Numerous individual primary impact evaluation studies have been published in the US and UK on different models of police working with people who have mental health problems. However, no systematic review has to date been conducted to synthesise this body of evidence.

To address this gap, this project aims to conduct a systematic review of the effectiveness and economic impacts of interventions that include pre-arrest diversion into mental health services for people with mental health problems and the impact this has on crime reduction and/ or reducing the criminalization of mental illness.

Systematic reviews have become established as a valuable tool for ensuring that policy and practice recommendations are based on a comprehensive view of the evidence (Gough et al., 2012), and on the best available evidence. Systematic reviews can also assist in the process of adjudicating between, combining and comparing the findings of individual studies when evidence for effects is fragmented, inconsistent or

inconclusive; and combining effects data collected from multiple studies can improve our confidence in conclusions that can be drawn about the (beneficial and harmful) effects of interventions (The Cochrane Collaboration 2011).

1.1 Policy and practice background

Police responses to people with mental health problems

A UK Independent Commission on Mental Health and Policing (2013) led by Lord Adebowele set forth a number of recommendations to guide police practice in response to people with mental health problems. First, that mental health needs to be recognised as a “core businesses of the police, and should be reflected accordingly in policy and operations” (pp. X6. Second, that improvements in staff training are needed, along with development of safer methods of restraint, so that staff can develop the skills and confidence necessary to manage mental health issues in the community. Record keeping and information systems were also highlighted as requiring improvement, alongside the need for more effective interagency working.

Whilst these recommendations clearly highlight scope for improvement, a recent UK Care Quality Commission (Care Quality Commission 2014) survey of people in the UK who had experienced a mental health crisis found that the majority of respondents reported positive experiences of contacts with police, in terms of being listened to, being taken seriously and being provided with advice and support to facilitate access to relevant services. Indeed, some respondents reported their experiences of contacts with police had been more positive than interactions with some specialist mental health services. This finding suggests that when officers have sufficient skills and confidence, their actions in dealing with people with mental health problems can be perceived as effective in facilitating access to relevant services and are valued.

1.2. Research background

Views of police

A study carried out in 2010 by McLean and Marshall explored police officers’ views on their roles in dealings with people with mental health problems and with mental health services in Scotland. Interviews with police officers revealed that many have experienced significant emotional impact arising from dealings with mentally vulnerable individuals and had concerns about both the impact of their role as frontline mental health staff on police resources and their primary role in public safety, as well as on the wellbeing of the people they were trying to help. Officers cited successful collaborative working as a substantial positive influence on outcomes, while reporting that failures in communication and co-operation with partners in mental health services had significant negative impacts.

Models of police diversion

Recent reviews of police diversion delivered by police and before an individual has been charged with an offence and appears in court, in the UK have primarily looked at Criminal Justice Liaison and Diversion, which includes diversion at both pre arrest

and after arrest (Intercept points 1 and 2, Munetz 2007). The Offender Health Research Network (Senior, 2011) reviewed 12 UK pathfinder area pilot liaison and diversion programmes and found that while there was some regional variation, effective provision of liaison services had the following key characteristics:

Clear definition

- A clear definition of liaison and diversion is needed which is shared by all the involved agencies.

Connectivity

- Developed across the different agencies, not developed in isolation
- Local post-diversion services and infrastructure

Accessibility

- Services are accessible when people need them

Skills

- A consistent skills mix of staff is needed
- Combined training for staff in the health, criminal justice, social care, educational and the independent sectors.

Participants selected for diversion were usually referred to the schemes after an arrest had taken place, and the person had been detained in custody overnight. The referral was dependent on the knowledge and experience of the police officers in recognising mental health needs.

The review also noted the lack of appropriate triage and appropriate referral to either primary care, or secondary care supported by social care. This caused the referral of people with common mental health problems, such as drug and/ or alcohol additional and personality disorders into services designed for people with serious mental illness (SMI). This could suggest a lack of provision for alternative care for people with more common mental health problems and/ or a lack of understanding and effective screening tools for police officers coming into contact with people with mental health problems.

A systematic narrative review, conducted by the Institute of Mental Health on behalf of the Offender Health Collaborative as part of the National Liaison and Diversion Development Programme (Kane et al, 2012), found that when diversion is successful, this should happen at the earliest opportunity and were 24/7 services responsive to local needs.

The police contact with people with mental health problems presents the earliest opportunity for diversion before an arrest takes place. As arrest is often an adversarial and confrontational experience, it also results in a criminal record, further stigmatizing and criminalizing people with mental health problems. There is a need to examine the research evidence for the different models of police diversion that take place before an arrest and before booking into the custody suite for greater costs savings and reduce the criminalisation of mental health problems.

1.2 Policy and practice background

Police responses to people with mental health problems

A UK Independent Commission on Mental Health and Policing (2013) led by Lord Adebowele set forth a number of recommendations to guide police practice in response to people with mental health problems. First, that mental health needs to be recognised as a “core businesses of the police, and should be reflected accordingly in policy and operations” (pp. X6. Second, that improvements in staff training are needed, along with development of safer methods of restraint, so that staff can develop the skills and confidence necessary to manage mental health issues in the community. Record keeping and information systems were also highlighted as requiring improvement, alongside the need for more effective interagency working.

Whilst these recommendations clearly highlight scope for improvement, a recent UK Care Quality Commission (Care Quality Commission 2014) survey of people in the UK who had experienced a mental health crisis found that the majority of respondents reported positive experiences of contacts with police, in terms of being listened to, being taken seriously and being provided with advice and support to facilitate access to relevant services. Indeed, some respondents reported their experiences of contacts with police had been more positive than interactions with some specialist mental health services. This finding suggests that when officers have sufficient skills and confidence, their actions in dealing with people with mental health problems can be perceived as effective in facilitating access to relevant services and are valued.

1.3. Review questions and approach

The review will be undertaken in two stages. The first stage will identify empirical studies that evaluate police first response interventions delivered to people with mental health problems. This will map out the evaluation literature in this field by describing the key characteristics of studies

The second, in-depth systematic review stage will extract, appraise and synthesise data from those studies identified within the map that describe police pre-arrest diversion as the specific police response. A meta-analysis of effects data for crime reduction outcomes (and possibly also mental health outcomes) will be conducted where outcome data and follow-up times are comparable between studies. Where this is not possible, a narrative synthesis will be conducted.

The question that the map will address is:

1. What is the nature and extent of the empirical research on police initial responses with people with mental health problems?

To answer this question the map will identify and describe the extent and nature of empirical research evaluating police first response interventions with people with mental health problems in terms of:

- geographical location,

- date of publication,
- type of study,
- people delivering the interventions,
- characteristics of people receiving the intervention,
- name of intervention
- model of police response
- types of outcomes measured by the intervention,

The question to be addressed by the in-depth systematic review is:

2. What is the effectiveness of police pre-arrest diversion of people with mental health problems into community services in reducing measures of crime
3. What is the effectiveness of police pre-arrest diversion of people with mental health problems into community services in improving mental health outcomes?
4. What are the moderators that might explain differences in effectiveness?
5. What are the mediators that might explain the direction and size of the effect
6. What are the issues in implementing the intervention
7. What are the costs associated with the intervention

To answer this question the in depth review will:

- Identify and describe the range of different models of delivering police pre-arrest diversion among identified empirical research studies.
- Assess the effectiveness of police pre-arrest diversion of people with mental health problems into community based mental health services in terms of crime reduction and mental health outcomes, compared with (i) no treatment (control), (ii) diversion initiated subsequent to arrest, or (iii) an alternative intervention delivered to individuals or groups.
- assess the relative effectiveness of different models of police pre-arrest diversion of people with mental health problems into community based mental health services firstly, in terms of crime reduction and secondly, in terms of mental health outcomes, compared with (i) no treatment or treatment as usual (control), (ii) diversion initiated subsequent to arrest, or (iii) an alternative diversion programmes on reducing crime?
- Assess the extent to which the direction and sizes of these effects of different contextual factors of police pre-arrest diversion may be modified by variant characteristics of studied interventions, populations and/or contexts and settings.
- Summarize the current evidence for the impacts of police pre-arrest diversion of people experiencing mental health problems into community-based mental health services on resource use and costs, and its cost-effectiveness, compared with (i) no treatment (control), (ii) diversion initiated subsequent to arrest, or (iii) an alternative intervention delivered to individuals or groups?

1.4. Scope and definitional issues

Dual diagnosis

An individual presenting with both mental health issues and substance misuse is said to have a 'dual diagnosis'. A commonly accepted definition put forward by Davis (2003) defines 'dual diagnoses' as "any mental health problem/diagnosis co-existing with ongoing substance misuse or abuse".

Someone with a dual diagnosis is more likely to come into contact with the criminal justice system, and such individuals commonly have more complex needs and poorer management of diagnoses (NaCRO, 2007). People with dual diagnosis tend to do worse than mentally disordered individuals without comorbid substance misuse. They are at particular risk of self-harm and suicide.

The relationship between mental health disorders and substance misuse may be bidirectional: substance misuse can be both a cause and a consequence of poor mental health.

Police officers

Police officers involved in delivering first response interventions, including pre-arrest diversion, to people with mental health problems are:

- Police officers who have had training in recognising mental health problems, crisis resolution and de-escalation techniques, such as officers in a crisis intervention team, or officers who have had other mental health awareness training.
- Police officers who may not have had any additional training in dealing with people with mental health problems.

Mental health care professionals

The term mental health care professionals describe professionals specialised in the area of mental health. When working alongside, or co-responding with, police in the delivery of police first response interventions, mental health care professionals may be available to officers to provide advice (in person or by telephone) on how to proceed with a person with mental health problems. Mental health care professionals sometimes work in teams with police officers and may be located in the same station, to enable a team response to calls that are flagged as likely having a mental health issue. Mental health care professionals involved in the delivery of police first response interventions include community mental health nurses, psychiatric staff, and forensic social workers.

People with mental health problems

The term mental health problems is used in this review to show that police officers and people working with them may not know the specific nature of the mental health problem they may come into contact with, and the person experiencing mental health problems may not be currently known to mental health services and professionals.

Mental ill health

The definition of mental ill health was changed in the Mental Health Act 2007 to include "any disorder of or disability of the mind" this includes people with mental health difficulties whether or not they have had a formal diagnosis and recognises that mental ill health is not a fixed state, but can change over time and mental ill health can be temporary.

Mentally vulnerable people

People who are deemed as mentally vulnerable includes those persons who may not full understand the significance of what is said to them (in a criminal justice setting) and would require the support and advocacy of an appropriate adult.

Mentally disordered individuals

A term usually used in a legal context to describe the small proportion of people with mental health problems that are detained subject to Part 3 of the Mental Health Act 1983.

Models of police response

The configuration of police staff, police training skills and knowledge, location and ways of working with other mental health agencies in response to people with mental health problems in the community.

Pre-arrest diversion

Pre-arrest diversion is defined by the actions of police officers in transferring care away from criminal justice settings into community based mental health care settings before and instead of arrest. The aim is to break the cycle of mental health crisis leading to criminal justice involvement, and continuing the lack of engagement with the underlying mental health issues which leads back to mental health crisis and criminal justice involvement.

To be defined as pre-arrest diversion, the officer will have had an opportunity to place the individual under arrest for an offence over which the officer may exercise his discretion (ie non-violent, low level public order offences), but instead chooses to divert the individual into the care of mental health services. This definition would exclude detention under the mental health act (2007) from a public place for the protection of the person with mental health problems or to protect other people, since no offence is assumed to have been committed.

Mental Capacity Act 2005

People who are assessed to be lacking mental capacity are defined as being unable (at that time) to make decisions for themselves in their interests. An example may be when a person with a dual diagnosis of mental illness and alcohol addiction was intoxicated. Police officers would not have any powers under the act to compel a person who lacked capacity into treatment. Refusal to accept diversion into treatment instead of arrest would not in itself indicate the person lacked mental capacity, even if the officer believed the diversion into treatment would be in their best interests.

Section 136. Mental Health Act 2007

One way in which persons with a mental disorder may come into contact with the police is through the use of Section 136 of the Mental Health Act 2007 - mentally disordered persons in public places (Docking et al 2008). Section 1 of the Act defines mental disorder as “*any disorder or disability of the mind*”. This definition excludes learning disabilities “*unless that disability is associated with abnormally aggressive*

or seriously irresponsible conduct” and dependence on alcohol or drugs. Under this directive:

*“If a constable finds in a place to which the public have access a person who appears to him to be suffering from mental disorder and to be in immediate need of care or control, the constable may, if he thinks it necessary to do so in the interests of that person or for the protection of other persons, remove that person to a **place of safety** [...] A person removed to a place of safety under this section may be detained there for a period not exceeding 72 hours for the purpose of enabling him to be examined by a registered medical practitioner and to be interviewed by an approved mental health professional and of making any necessary arrangements for his treatment or care (emphasis added)”*

Persons detained under the Section 136. are not included in the in depth review of pre-arrest diversion as no offence is suspected.

1.5. Authors, funders, and other users of the review

The authors of the review are Karen Schucan Bird, Carol Vigurs, Katie Quy and David Gough. The review is part of a larger work package of What Works commissioned partnership programme to support the What Works Centre for Crime Reduction. There are multiple intended users of the review: policy makers, practitioners and researchers in the field of mental health and criminal justice, third sector organisations and activists that address mental health issues in the criminal justice system and academic researchers in a range of disciplines.

2. Methods

7.1. Type of review

This review will have two sequential stages (see also Figure 2):

Stage 1. Systematic map.

This stage of the review will identify and describe all empirical studies of police first response interventions delivered to people experiencing mental health problems to address. Key characteristics of each study will be recorded and summarised in order to provide a descriptive overview of this evidence base, and to inform understanding of the range of different approaches studied, and the development of different models of police response over time.

Stage 2. In depth review

From this systematic map of the literature, the review will apply additional inclusion criteria (see below) to identify those primary studies that measure the impact of police first responses that divert individuals away from the criminal justice system, before entry (before an arrest and booking takes place) and into mental health services.

Data from each evaluation study will be systematically extracted to inform coding of each study using the EMMIE systematic review appraisal framework (Johnson, Tilley and Bowers, 2015), which was developed from evaluation scales widely used in health and criminal justice, and developed to include the information most useful for systematic reviews in the field of criminal justice.

The framework codes for the

Effectiveness of the intervention,

Mechanism theorised to be at work

Moderators that could affect the response to the intervention,

Implementation issues in practice,

Economic costs information will be identified and described for each study. (See Section 2.4 'Economic commentary')

As this review will analyse not only what works in terms of impact on crime and costs (where data is available), but also the factors that might explain for whom the intervention is most effective and under what circumstances, individual primary studies would be required for the level of detail that may be missing from systematic reviews of impact.

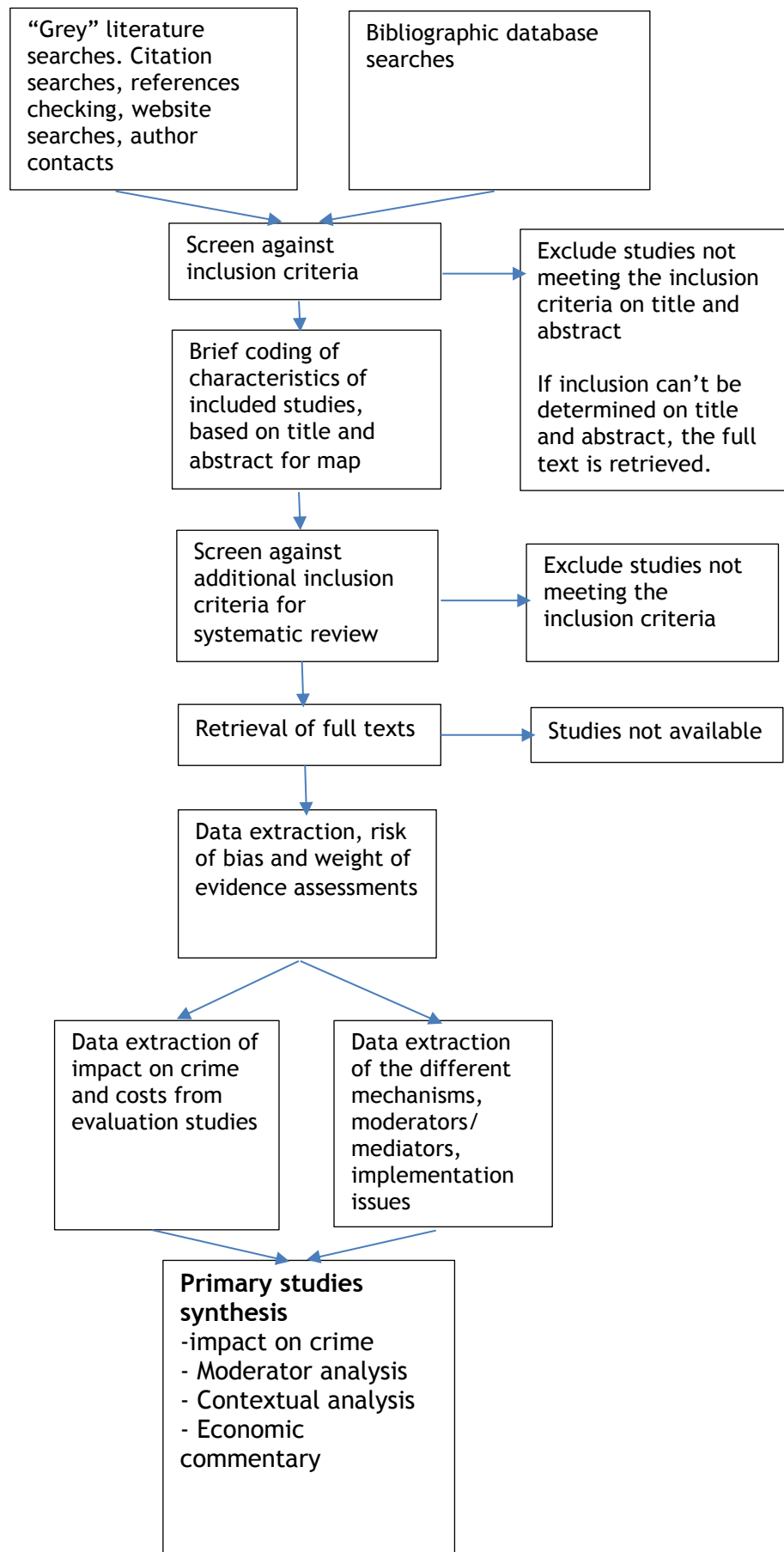
This stage of the review will focus exclusively on those primary studies identified in the systematic map (including those identified in the reference lists of eligible systematic or non-systematic reviews)

Evaluation studies that compare two different groups, that have assessed the effects of diversion before an arrest has taken place and measure outcomes after a period of time to follow up after the diversion has taken place.

Studies will be included to provide contextual information on the moderating factors that could affect the strength and direction of the effect, the mechanisms that underpin the programme, and any Implementation issues in these types of programmes to understand how the programme is supposed to work

It will also include an economic commentary, drawing primarily on economic evaluations identified in the systematic map that have assessed the impacts of pre-arrest diversion on resource use and/or costs, or their cost-effectiveness, compared with alternatives (see Section 2.4 'Economic commentary', below).

Figure 2.
Stages in review process and synthesis



User involvement

To ensure the relevance and usefulness of this project, a range of users/ stakeholders have been consulted in the process of scoping the review and developing the protocol. The user group represents a range of policy, practice and academic perspectives with an interest in the area of policing and mental health review (see Appendix 1.2 for details):

1. Policy and decision makers that are funding and/or implementing police responses to people with mental health needs
2. Individuals and organizations implementing and/or designing interventions to improve police responses to people with mental health needs
3. Academic researchers

There were two different user roles: a consultation role and an advisory role. The stakeholder consultation group provided verbal and email input at the initial stages of the project. Consultation with these members was principally undertaken on a one-to-one basis, via telephone, to identify and discuss key issues in the field (in terms of policy, practice and research). These discussions served to inform the development of the scope and direction of the map and review. On completion of the review, users groups will be invited to comment on the draft report and support dissemination.

2.2.1 Identifying and describing studies

Defining relevant studies: Inclusion and exclusion criteria

As illustrated in Figure 2, different sets of inclusion criteria will be applied to select studies into each stage of the review, as follows:

Eligibility criteria for the systematic map (stage 1)

Studies must meet all of the following inclusion criteria to be eligible for inclusion:

Published after 1995

- Studies published before 1995 will be excluded as being less relevant to current policy and practice.

Population

- People experiencing mental health problems who come into contact with the police or mental health care professionals working with police (including community mental health nurses, psychiatric staff, ambulance crew);
- Police officers; or
- Mental health care professionals working with police.

Intervention

- Any form of police first response intervention delivered to people with mental health problems. Interventions may be delivered either by police services alone or by multiple agencies including (but not limited to) police services.

Study type

- a) Systematic review that includes assessment of the outcomes, economic impacts
OR
- b) Primary study (reports empirical data, either numerical or textual, on the outcomes, economic impacts and/ or a process evaluation of an eligible intervention).

Comparator

- All comparators will be included in the map. These are likely to be police compared to other sectors, usual responses or no response.

Outcomes

- All outcomes as described in the study will be included in the map.

Geographical location

- Systematic review includes studies conducted in, OR primary study collected from, the UK or other OECD countries (i.e. those with similar economic, welfare and criminal justice systems to the UK): Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Luxemburg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, United States.

Eligibility criteria for the in-depth review of primary studies (stage 2)

Studies meeting the following will be selected from those identified in the systematic map with the inclusion criteria above, with the addition of the following criteria:

Intervention

- Police-delivered diversion of people experiencing mental health problems away from criminal justice settings into community-based mental health services before, and instead of, arrest or “booking” takes place.

Study type

- Systematic review that includes assessment of the outcomes, economic impacts
OR
- Experimental or quasi experimental primary study (reports empirical data, either numerical or textual, on the criminal justice , mental health outcomes, economic impacts
- Process evaluation primary study (reports empirical data, either numerical or textual, on moderating characteristics, programme mechanisms and implementation issues

Comparators

- No treatment or treatment as usual (control)

- Police-delivered diversion initiated subsequent to arrest
- An alternative (non-diversion) intervention delivered by police to individuals or groups.

Criminal justice Outcomes

- The outcomes will be measured after a period of time after the diversion has taken place.

Specific measures of this outcome construct may include:

Criminal justice outcomes

- Arrest (being taken into custody by police)
- Recidivism
- Criminal charges (e.g. filing of a criminal case)
- Incarceration
- Time to arrest
- Time to recidivism
- Time to incarceration
- Duration of incarceration
- Community safety

Mental health outcomes

- Mental health related quality of life measures
- Mental illness symptoms
- Substance addiction relapse
- Mental health service uptake

Types of study

Outcome evaluations:

Eligible studies will have measured the outcome(s) of interest among a group of participants exposed to pre-arrest diversion and an eligible comparator group. Individuals will be followed up after a period of time and criminal justice and/ or mental health outcomes measured.

Economic evaluations:

The following types of economic evaluation will be considered for inclusion: full economic evaluations and cost analyses that meet eligibility criteria set for the primary study synthesis in relation to participants, intervention and comparators, will be identified within the systematic map and used to inform development of an economic commentary (see Section 2.4 ‘Economic commentary’, below). Full economic evaluations are those that compare eligible interventions with comparators in terms of both their costs and effects, including cost-effectiveness analyses and cost-benefit analyses. Cost analyses are studies that compare eligible interventions with comparators in terms of their costs only. Data outputs from full economic evaluations and cost analyses include estimates of the impacts of interventions on resource use, costs and (in the case of full economic evaluations) estimates of intervention cost-effectiveness. The economic commentary will also draw on randomized trials reporting cost related information such as estimates of resource use or associated costs.

2.2.1.3. Search methods

The search strategy will have several components: the main effort is invested in the search of bibliographic databases and this is supplemented by a search of relevant websites, grey literature and hand searches of relevant journals. The map will be based on a literature search built around the terms for “police” and “people with mental health problems”.

Bibliographic databases

The search strategy for bibliographic databases will combine search terms that describe mental illness (population) with terms that describe police responses (intervention). Key terms identified from existing systematic reviews of police responses to people with mental illness will be used to develop a search string that will then be piloted and tested. The list of bibliographic databases to be searched is in Appendix 2.3.

2.1.4 Screening studies: applying inclusion and exclusion criteria

Results from the searches will be uploaded into the EPPI-Centre’s dedicated software EPPI-Reviewer 4 (Thomas J, Brunton J, Graziosi S (2010) and any duplicates will be removed.

Criteria for inclusion will be applied to the study records in EPPI-Reviewer that we have identified in the search by one reviewer. Eligibility for inclusion in the systematic map will be determined based on screening the title and abstract. For quality assurance, a sample of the titles and abstracts will be screened by two reviewers against the inclusion and exclusion criteria and compared. Discrepancies will be discussed and resolved by a third reviewer until a high level of consistency is reached. We will maintain a record of the selection process for all screened material and report this in a flow of studies diagram, detailing the numbers of records excluded and the reasons for exclusion at each stage. Studies that have insufficient information to determine inclusion will be marked for query and investigated further after the initial mapping stage, should time and resources allow. The eligibility of the studies for the systematic review will be determined based on screening the full text with the extended inclusion criteria described overleaf.

2.1.5 Characterising included studies for this systematic map

Studies that meet the inclusion criteria for the systematic map will be coded with a set of keywords by one reviewer. For quality assurance, two reviewers will independently extract data from a sample of studies and any coding disagreements will be identified and resolved by discussion to reach consensus. If the reviewers cannot reach consensus regarding coding for a specific study, judgement will be referred to a third reviewer.

The keywords will be used to map the characteristics of the studies based on the titles and abstracts of the reports (see Appendix 2.4.1 for details of the tool).

This stage will describe or ‘map’ the overall field of research in the area of criminal justice interventions for domestic violence. Keywords will encompass several dimensions of the studies reviewed including:

- Type of study: Systematic review, review, primary study.
- Geographical location
- Date of publication
- Characteristics of the participants, e.g. people with severe mental illness, people with dual diagnosis
- Type of intervention
- Name of programme or model of police response
- Outcomes measured
- Setting where the intervention takes place

7.2. Systematic review

2.2.1 Moving from broad characterisation (mapping) to in-depth review

As described above, all primary studies included in the systematic map of all police first response interventions will have been coded for key characteristics, including study design, types of participants, intervention and comparator type(s), and outcome measures. Individual primary studies that meet eligibility criteria for the in-depth systematic review can therefore be identified directly from the map. In addition, evidence tables and reference lists in reports of systematic reviews included in the map will be checked to identify any further individual primary studies meeting eligibility criteria for the systematic review.

For the in-depth systematic review, additional data will need to be extracted from primary outcome evaluation studies for use to inform the identification and description of different approaches to police pre-arrest diversion, risk of bias assessment, and synthesis of evidence for effectiveness. Studies that are linked to the primary study, such as a process evaluation report attached to the impact evaluation will be obtained and relevant information extracted as contributing to a single study.

We will extract data from eligible primary outcome evaluations on:

- Study Aims and Rationale
- Study design
- Actual sample characteristics
- Programme or Intervention description
- Comparator type (arrest, no treatment, diversion subsequent to arrest, alternative non-diversion intervention)
- Outcomes, Results & Conclusions
- Methods - treatment of groups
- Methods - sampling strategy
- Methods - recruitment and consent
- Methods - data Collection
- Methods - data analysis
- Length of time to follow up
- Programme completion/ attrition
- Risk of bias
- Weight of evidence
- Mechanisms and moderators
- Implementation
- Costs

2.2.2 Assessment of risk of bias in included studies

The primary studies included in the in depth review are likely to report a range of different study designs and outcomes measures. Each study will be assessed for the trustworthiness of their findings based on the efforts the researchers have made to minimise the risk of bias and the relevance of the study in answering the reviews question. Studies in the systematic review will be assessed for the overall weight of evidence, (Gough 2007). An assessment that takes into account the internal validity

of the study, the appropriateness of the study in answering this review's questions and the relevance of the study to this review

- Weight of evidence (A) the quality of the study in terms of accepted practice within the research design employed. For example, for randomised controlled trials The Cochrane risk of bias tool (Cochrane 2011) will be used to assess to what extent the study has minimised potential bias by randomization of groups and blinding of participants and researchers to allocation and treatment. Additional questions will be asked of quasi-experimental studies where randomization and blinding is not possible. Risk of bias will be assessed against the efforts made by researchers to ensure the equivalence of groups or what steps were taken to identify and minimize the influence of confounding factors and minimize sources of potential bias.
 - Weight of evidence (B) the appropriateness of the study design in being able to answer the questions in this review ,
 - (Weight of evidence C). The relevance of the study to this review's questions
- An overall weight of evidence score was then applied (weight of evidence D) taking into account and answers given in the previous questions and assigned a low overall score +, medium ++ or high +++.

In cases of disagreement, the reviewers will meet to establish consensus but where the two authors cannot reach consensus regarding categorisation for risk of bias for a specific study, they will refer judgement to a third reviewer.

7.3. Synthesis of evidence

7.3.1. Synthesis of effects data

Effect size calculation

Specialist software (EPPI Reviewer 4) will be used to convert study-level data derived from different measures of the same outcome construct (e.g. crime reduction) into a common metric—the effect size. We will calculate the effect sizes using the formulae described by Lipsey and Wilson (2001).

Studies that measure the effect of an intervention using continuous variables are likely to be studies that have a measure of time, such as days to recidivism, or measure changes on psychological scales. Effect sizes from these kinds of studies are presented as changes in mean scores or standardised mean differences. Effect sizes of 0 indicate no difference between the two groups (intervention and control).

Dichotomous variables measure the presence or absence of an event, e.g. arrest or no arrest. Effect sizes from these kinds of studies are often presented as odds ratios, relative risk ratios, and absolute risk differences. Dichotomous variables can be presented as tables comparing the event vs. no event for the number or proportions of the intervention and control group In this case we will calculate odds ratios from these tables to standardize the measures of effect across study types. Effect sizes of 1 indicate no difference between the two groups (intervention and control).

Unit of analysis issues

The unit of analysis in most primary studies is expected to be the individual; in the current context this is likely to be the person experiencing mental health problems, who has been assigned to a pre-arrest diversion intervention group or an eligible comparison group. However, it is likely that there will be studies in which groups, rather than individuals, are assigned to intervention or comparison groups. If the analysis is by group, for example a randomised controlled trial where the unit of analysis is by county or a precinct that is participating in implementing a diversion programme, then we will use the standard deviation adjusted for clustering to include the study in the meta-analysis (White and Thomas, 2005). If the standard deviation adjustment is not reported in the study we will adjust the standard deviations using the variance inflation factor, as described in the Cochrane Handbook (Borenstein 2009).

Dealing with missing data

We will contact included study authors to try to obtain any relevant missing data. The potential impact on results of missing data will be discussed and be examined by sensitivity analyses.

Methods for dealing with dependent effect sizes

We will include only one effect estimate per study in a single meta-analysis. It is likely that some primary studies will have measured a single outcome construct (e.g. crime reduction) in more than one way (e.g. recidivism and days of incarceration). In this situation, we will select a single measure from each study using the following rules:

- Prioritizing objective, crime reduction measures (such as official reports of arrest and arrest rates) over subjective, self-report measures (such as officer self-reported number of arrests).
- If multiple, objective crime-reduction measures are presented in a single study then we will prioritize outcomes using the hierarchy below. This uses the Sequential intercept model (Munetz & Griffin 2006) to prioritize measurements of re-entry into the criminal justice system (such as arrest and time to arrest) and subsequent points that mark an individual's movement towards incarceration.
 - Arrest (being taken into custody by police)
 - Time to arrest
 - Criminal charges (e.g. filing of a criminal case)
 - Incarceration
 - Time to incarceration
 - Duration of incarceration
 - Recidivism (where an individual repeats an offense after already having had contact with the criminal justice system)
 - Time to recidivism

- Community safety (rates of crime and disorder, experiences of crime, and fear of crime in the community).
- If multiple mental health outcomes are presented, then we will prioritize using the following hierarchy:
 - Service utilization (emergency departments, mental health counseling)
 - Mental health medication
 - Functioning and quality of life measures
 - Substance addiction relapse

Detection of heterogeneity

Statistical heterogeneity measures the degree of variability between effect sizes estimated among different included studies beyond that which could be expected due to chance alone. Statistical heterogeneity may result from variability in the participants, interventions and/or outcomes studied, and/or from variability in study design and methods. If included studies are too different from each other, naïve interpretation of the summary result obtained from meta-analysis of effects data may generate spurious inferences. A statistical measure of heterogeneity (I^2) will be calculated using the EPPI reviewer 4 meta-analysis software.

The I^2 statistic describes approximately the proportion of variation in point estimates due to heterogeneity rather than sampling error (chance). We will consider I^2 values less than 30% as indicating low heterogeneity, values in the range 30% to 60% as indicating moderate heterogeneity, and values greater than 60% as indicating substantial heterogeneity. We will attempt to identify any significant determinants of heterogeneity (such as those listed above) if the I^2 values is categorised at moderate or high.

Assessment of publication bias

A funnel plot will be used to assess publication bias (Higgins and Green, 2011). The effect sizes of included studies will be plotted against a measure of standard error. Individual effect sizes plotted asymmetrically around the mean will alert us to the possible presence of publication bias. Alternative explanations for asymmetry in the funnel plot will also be explored (Egger et al. 1997 cited in Higgins and Green, 2011) to inform the judgements and inferences that can be drawn from the analysis.

Data synthesis

A statistical meta-analysis of comparable measures of effects will be undertaken where it is appropriate to do so to determine the summary effect size. The effect sizes will be weighted to give greater influence to larger studies using an inverse variance weight (Lipsey & Wilson, 2001). EPPI Reviewer 4 software will be used for the overall meta-analysis.

A random effects model and a fixed effect model of meta-analysis will be compared for the impact on the overall effect size. If point estimates are similar between random- and fixed-effects models, we will present the random-effects analysis only, if point estimates differ importantly between random- and fixed-effects models, we will present both analyses. If the participants, contexts and outcomes are not sufficiently similar to conduct a meta-analysis, a narrative synthesis will be developed to describe, textually, the impacts and the factors that may explain the strength and direction of the effect of police pre-arrest diversion approaches, contexts and groups.

Sub-group analysis and investigation of heterogeneity

Additional moderator analysis will be conducted in EPPI-Reviewer 4 to investigate effects in subgroups where sufficient data are available, i.e. three or more comparable studies, and to explore possible explanations for statistically significant heterogeneity. Moderators are factors or characteristics that can influence the strength and direction of the effect, e.g. characteristics of participants, or type of mental health problem. The review will undertake moderator analyses for the following,

- Comparisons between different models of pre-arrest diversion.

Different models of diversion may include police officers with specialist training in understanding and dealing with mental health issues, and techniques for mediation and de-escalation or they may include officers with no specialist training. Different models may include different types of mental health care staff that attend the incident with the police officers. The different combinations of police and mental health care staff and levels of training may impact on how successful the pre-arrest diversion team are in identifying and responding appropriately to people with mental health problems.

- Comparisons between different population groups.

Ethnicity, gender, and co-diagnosis with other health issues are variables anticipated to mediate the effect of the intervention. There is indicative evidence that ethnicity (Anderson et al., 2014), gender (Becker et al., 2011; Crocker et al., 2009), and co-diagnosis with substance abuse (McCabe et al., 2012) are moderating factors in the frequency and nature of police encounters with people with mental health issues.

Further moderator analyses will be undertaken if additional variables are identified in the process of interacting with the literature.

Sensitivity analysis

A sensitivity analysis will also be conducted in EPPI-Reviewer 4 to assess the relative impacts of different study designs on the overall results. If the interpretation of the overall results differs depending on which types of study design are included in the analyses, then we will not present the overall mean effect size but instead report

separate results for the different study designs, with an emphasis in our conclusions on study designs that have better internal validity.

7.4. Economic commentary

An economic commentary will be developed alongside – and placed in the context of evidence generated from – the synthesis of effects data (Shemilt et al., 2013, Shemilt et al., 2011). This integrated component of the systematic review will draw primarily on identified economic evaluations that have assessed the impacts of police-delivered pre-arrest diversion for people experiencing mental health problems on resource use and/or costs, or their cost-effectiveness, versus eligible comparators. The economic commentary will summarise what is known from different studies, conducted in different settings, about these economic impacts of pre-arrest diversion, to inform an understanding of the structure of resource allocation decisions and key economic trade-offs likely to be faced in choosing between this type of intervention and (i) ‘no treatment’ (treatment as usual), (ii) post-arrest (“post-booking”) diversion, and (iii) alternative police first response interventions delivered to people experiencing mental health problems. Types of economic evaluations eligible for inclusion in this component of the review are described in Section 2.1.2 (‘Types of studies’). To inform the economic commentary, evidence from economic evaluations conducted alongside outcome and/or process evaluations meeting eligibility criteria for the main review will be analysed in conjunction with relevant data (e.g. on intervention effects) extracted from linked study reports.

Given that pre-arrest diversion into treatment is expected to impact on resource use (and associated costs are expected to accrue) within and across the criminal justice and mental health care systems, the economic commentary will adopt a multi-sector perspective that includes both systems, to summarise the key characteristics and results of included economic evaluations. It will encompass consideration of both incremental resource use and costs used to implement pre-arrest diversion, and (where available) the monetized value of the effects of the intervention (e.g. changes in costs incurred within the criminal justice system as a result of crime reduction; changes in value deriving from beneficial effects, such as intangible costs of crime and changes in participants’ mental health outcomes). The EMMIE 5 point rating scale for economic data (Manning et al 2015) will be applied to inform assessment of the degree to which all relevant direct and indirect costs and benefits have been captured among included economic evaluations. Unadjusted estimates of costs and/or cost-effectiveness will be presented alongside information on the currency and price year used, and also (where appropriate and feasible) adjusted to a common currency and price year in order to facilitate comparison between studies (Shemilt et al, 2010).

7.5. Deriving conclusions/ implications

Evidence from the systematic reviews and the impact studies will be presented in evidence tables showing where there is evidence to indicate which interventions “work”, those shown to be promising, and those that do not show evidence of effectiveness and how these relate to the different approaches, implementation issues, and economic data, where available.

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Appendices

Appendix 1.1: Authorship of this report

Appendix 1.2 Details of user involvement

Appendix 2.1: Inclusion and exclusion criteria

Appendix 2.2: Search strategy for electronic databases

Appendix 2.3. Bibliographic databases

Appendix 2.3.1. Websites searched

Appendix 2.4 Draft Key-wording tool for the map

Appendix 2.4.1. Draft coding tool for the in depth reviews

Appendix 2.4.2. Quality appraisal tools

Appendix 1.1: Authorship of this report

The authors of the protocol are Carol Vigurs, Karen Schucan Bird, Katie Quy and David Gough.

Appendix 1.2 Details of user involvement

Details of the membership of the Advisory Group

Name	Title	Organisation
Professor Ian Cummins	Senior Lecturer in Social Work	University of Salford
Dr Victoria Herrington	Director Research and Learning	Australian Institute of Police Management
Dr Yasmeen Krameddine	Postdoctoral fellow Department of Psychiatry	University of Alberta

Details of the membership of the stakeholder consultation group

Name	Title	Organisation
Sarah Brennan	Chief Executive	YoungMinds
Dr Wendy Dyer	Senior Lecturer in Criminology	University of Northumbria
Ms Stephanie Kilili	Policy advisor	Office of the Durham Police and Crime Commissioner
Simon Thorneycroft	Mental health coordinator	Office of the Police and Crime Commissioner for Dorset

Appendix 2.1: Inclusion and exclusion criteria for the map

Criteria	Inclusion	Exclusion
1. Language	Published in English	Published in any language other than English
2. Focus of report/ population of study	Adults (aged 16 or over) have come into contact with the police OR Police officers who have come into contact with people with mental health difficulties, or crisis	Populations that are not adults with mental health difficulties NOR Police officers experiencing mental health difficulties. Population groups who are under 16.
3. Intervention	Victims or perpetrators with mental illness , crisis or disorder that have come in contact with the police Includes multi-agency interventions include an element of involvement from the criminal justice system. Include specific following interventions: -Street Triage -Crisis Intervention Teams - Multi-agency working - Co-responder programmes - Appropriate adult - Diversion schemes	Victims or perpetrators with mental illness , crisis or disorder that have NOT come in contact with the police Exclude interventions delivered by other criminal justice agencies, e.g, the prison service, the probation service Exclude interventions delivered by other public sectors (e.g. NHS), or the voluntary or third sector only that do not include police
4. Study type	Systematic review (i.e. describes search strategies and inclusion criteria used) that includes outcome, economics and/ or process evaluation	Literature review without explicit methods detailing search strategy and inclusion criteria, or quality assessment of included studies

	<p>OR</p> <p>Primary study that examines the impact of police approaches to interactions with people with mental health difficulties</p>	<p>Systematic review of primary studies that do not include empirical data</p> <p>Exclude primary studies without empirical data, either numerical or textual</p> <p>Commentaries, position papers, policy documents (i.e. reports without empirical data), methodological papers (e.g. validation of measurement tools), historical analyses (before WW II), student textbooks without explicit reference to empirical research.</p> <p>Exclude studies that do not tell us about the impact of police interventions with people with mental health difficulties</p> <ul style="list-style-type: none"> • Exclude prevalence studies- those that only identify or describe the prevalence of people with mental health difficulties that have contact with the police service.
<p>5. Geography</p>	<p>Systematic review includes studies OR primary study where data has been collected from OECD countries (Australia, Austria, Belgium, Canada, Chile, Czech Republic,</p>	<p>Systematic review includes studies from non-OECD countries. Primary studies collect data from non-OECD countries.</p>

	Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Luxemburg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States)	
6. No Abstract		<p>If no abstract is provided, please undertake a quick Google search for the abstract.</p> <p>Exclude studies where it is not possible to easily locate an abstract or summary of the report.</p>

Appendix 2.2: Search strategy for electronic databases

ASSIA

ti(Police OR policing OR "law enforcement" OR officer* OR YOT OR YOTS OR constable*) OR ab(Police OR policing OR "law enforcement" OR officer* OR YOT OR YOTS OR constable*) OR

su(police OR "police officers" OR "community management" OR arrests OR "police-citizen interactions" OR "crisis intervention")

AND

ti(crisis OR crises OR mentally OR Mental* OR psychiatr* OR vulnerab* OR homeless* OR suicid* OR mind OR "at risk") OR ab(crisis OR crises OR mentally OR Mental* OR psychiatr* OR vulnerab* OR homeless* OR suicid* OR mind OR "at risk") OR

su("mental health" OR "psychiatric disorders" OR "mental health services" OR "mental illness" OR suicide OR "mentally ill people" OR vulnerability OR "mental states" OR "emotional disturbance" OR "therapeutic communication" OR sectioning OR "at risk")

Proquest – Criminal justice abstracts, Psychology Journals

ti(Police OR policing OR "law enforcement" OR officer* OR YOT OR YOTS OR constable*) OR ab(Police OR policing OR "law enforcement" OR officer* OR YOT OR YOTS OR constable*)

OR

SU.EXACT("Police") OR SU.EXACT("Law enforcement") OR

SU.EXACT("Community policing")

And

ti(crisis OR crises OR mentally OR Mental* OR psychiatr* OR vulnerab* OR homeless* OR suicid* OR mind) OR mentally OR Mental* OR psychiatr* OR vulnerab* OR homeless* OR suicid* OR mind)

OR

SU.exact("mental health care") OR SU.exact("mental disorders") OR

SU.EXACT("Suicides & suicide attempts") OR OR SU.EXACT("Behavior

disorders") OR SU.EXACT("Psychiatry") OR SU.EXACT("Personality disorders")

OR SU.EXACT("Crisis intervention")

Appendix 2.3. Bibliographic databases

The bibliographic databases relevant to criminal justice field that will be searched are listed below

Criminology

Criminal Justice Abstracts (CJA)
National Criminal Justice Reference Service Abstracts Database (NCJRS)
Campbell Library C2 SPECTR
National Police Library

Psychology

PsycArticles
PsycINFO
MEDLINE

Social Science

ASSIA
EconLit
Social Policy and Practice
Social Science Citation Index

Systematic reviews

Cochrane Central Register of Controlled Trials
Cochrane Database of Systematic Reviews
DARE (Database of Abstracts of Reviews of Effectiveness)
WP1 database

Grey literature and website searching

Our comprehensive search strategy will include “grey” literature to capture data that may not be available in peer reviewed periodicals.

Grey literature databases

- 1) CrimDoc Criminology Library Grey Literature
- 2) Google and Google Scholar
- 3) SCOPUS
- 4) Social Programs That Work

Appendix 2.3.1. Website searches

We will screen reports and documents published on the following websites:

The Australian Institute of Police Management <http://www.aipm.gov.au/>
The Barrow Cadbury Trust <http://www.barrowcadbury.org.uk/>
The Centre for Problem Oriented Policing <http://www.popcenter.org/>
The Center for Evidence Based Crime Policy <http://cebcp.org/>
The Department of Health <https://www.gov.uk/government/organisations/department-of-health>
Her Majesty's Inspectorate of Constabulary (HMIC) <http://www.hmic.gov.uk/>
Home Office <https://www.gov.uk/government/organisations/home-office>
MIND www.mind.org.uk
The National Alliance on Mental Illness <http://www.nami.org/>
Ministry of Justice <https://www.justice.gov.uk/>
National Police Chief's Council <http://www.npcc.police.uk/>
National Offender Management Service <http://www.justice.gov.uk/about/noms>
NICE National Institute for Health and Care Excellence <http://www.nice.org.uk/>
National Institute of Justice, <http://www.nij.gov/Pages/welcome.aspx>
The Police Executive Forum <http://www.policeforum.org/>
Rethink mental Illness <http://www.rethink.org/>
Revolving Doors Agency <http://www.revolving-doors.org.uk/about-us/>
The United States Department of Justice <http://www.justice.gov/cjs/>
Young Minds <http://www.youngminds.org.uk/>

In addition, bibliographies of included studies will be scanned for other potentially relevant studies. As bibliographic databases do not always have more recent journals indexed, key journals below will be hand searched for relevant articles.

- Mental Health and Criminal Justice
- Policing: A journal of Policy and Practice
- Police Practice and Research: An International Journal

Appendix 2.4.1 : Draft coding tool

Section A: Administrative details

A.1 Name of the reviewer	A.1.1 Details
A.2 Date of the review	A.2.1 Details
<p>A.3 Please enter the details of each paper which reports on this item/study and which is used to complete this data extraction.</p> <p><i>(1): A paper can be a journal article, a book, or chapter in a book, or an unpublished report.</i></p> <p><i>(2): This section can be filled in using bibliographic citation information and keywords 1, 2, and 4 from the EPPI-Centre Core Key wording Strategy (V0.95)</i></p>	<p>A.3.1 Paper (1) <i>Fill in a separate entry for further papers as required.</i></p> <p>A.3.2 Unique Identifier:</p> <p>A.3.3 Authors:</p> <p>A.3.4 Title:</p> <p>A.3.5 Source (Website owner):</p> <p>A.3.6 Status (published or unpublished):</p> <p>A.3.7 Language:</p> <p>A.3.8 Identification of report:</p> <p>A.3.9 Paper (2)</p> <p>A.3.10 Unique Identifier:</p> <p>A.3.11 Authors:</p> <p>A.3.12 Title:</p> <p>A.3.13 Source:</p> <p>A.3.14 Status:</p> <p>A.3.15 Language:</p> <p>A.3.16 Identification of report:</p>
<p>A.4 Main paper. Please classify one of the above papers as the 'main' report of the study and enter its unique identifier here.</p> <p><i>NB (1): When only one paper reports on the study, this will be the 'main' report.</i></p> <p><i>NB (2): In some cases the 'main' paper will be the one which provides the fullest or the latest report of the study. In other cases the decision about which is the 'main' report will have to be made on an arbitrary basis.</i></p>	<p>A.4.1 Unique Identifier:</p>

<p>A.5 Please enter the details of each paper which reports on this study but is NOT being used to complete this data extraction. <i>NB A paper can be a journal article, a book, or chapter in a book, or an unpublished report.</i></p>	<p>A.5.1 Paper (1) <i>Fill in a separate entry for further papers as required.</i></p> <p>A.5.2 Unique Identifier:</p> <p>A.5.3 Authors:</p> <p>A.5.4 Title:</p> <p>A.5.5 Source:</p> <p>A.5.6 Status:</p> <p>A.5.7 Language:</p> <p>A.5.8 Identification of report:</p> <p>A.5.9 Paper (2)</p> <p>A.5.10 Unique Identifier:</p> <p>A.5.11 Authors:</p> <p>A.5.12 Title:</p> <p>A.5.13 Source:</p> <p>A.5.14 Status:</p> <p>A.5.15 Language</p> <p>A.5.16 Identification of report:</p>
<p>A.6 If the study has a broad focus and this data extraction focuses on just one component of the study, please specify this here.</p>	<p>A.6.1 Not applicable (whole study is focus of data extraction)</p> <p>A.6.2 Specific focus of this data extraction (please specify)</p>

Section B: Context and aims

<p>B.1 What was the aim of the review Please write in authors' description if there is one. Elaborate if necessary, but indicate which aspects are reviewers' interpretation. Other, more specific questions about the research</p>	<p>B.1.1 Explicitly stated (please specify)</p> <p>B.1.2 Implicitly stated (please)</p> <p>B.1.3 Not state / Unclear (please specify)</p>
<p>B.2 What is the purpose of the study?</p> <p>B.2.1. Please use this code for studies in which the aim is to produce a description of a state of affairs or a particular phenomenon, and/or to document its characteristics. In these types of studies there is no attempt to evaluate a particular intervention programme</p>	<p>B.2.1 Description</p> <p>B.2.2 Exploration of relationships</p> <p>B.2.3 What works?</p> <p>B.2.4 Costs</p> <p>B.2.5. Methods development</p> <p>B.2.6 Reviewing/synthesising research</p>

<p>(according to either the processes involved in its implementation or its effects on outcomes), or to examine the associations between one or more variables. These types of studies are usually, but not always, conducted at one point in time (i.e. cross sectional). They can include studies such as an interview of head teachers to count how many have explicit policies on continuing professional development for teachers; a study documenting student attitudes to national examinations using focus groups; a survey of the felt needs of parents using self-completion questionnaires, about whether they want a school bus service.</p> <p>B.2.2 Exploration of relationships Please use this code for a study type which examines relationships and/or statistical associations between variables in order to build theories and develop hypotheses. These studies may describe a process or processes (what goes on) in order to explore how a particular state of affairs might be produced, maintained and changed.</p> <p>B.2.3 What works? A study will only fall within this category if it measures effectiveness - i.e. the impact of a specific intervention or programme on a defined sample of recipients or subjects of the programme.</p> <p>B.2.4. Costs A study will fall into this category if there is a measure of an economic outcome, such as resource use, cost or cost-effectiveness.</p> <p>B.2.5 Methods development Studies where the principle focus is on methodology.</p> <p>B.2.5 Reviewing/synthesising research</p>	
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<p>Studies which summarise and synthesise primary research studies.</p>	
<p>B3. Do authors report how the study was funded?</p>	<p>B.3.1 Explicitly stated (please specify) B.3.2 Implicit (please specify) B.3.3 Not stated/unclear (please specify)</p>
<p>B4. When was the study carried out?</p> <p>If the authors give a year, or range of years, then put that in. If not, give a 'not later than' date by looking for a date of first submission to the journal, or for clues like the publication dates of other reports from the study.</p>	<p>B.4.1 Explicitly stated (please specify) B.4.2 Implicit (please specify) B.4.3 Not stated/unclear (please specify)</p>
<p>B5. What are the study research questions and/or hypotheses?</p> <p>Research questions or hypotheses operationalise the aims of the study. Please write in authors' description if there is one. Elaborate if necessary, but indicate which aspects are reviewers' interpretation</p>	<p>B.5.1 Explicitly stated (please specify) B.5.2 Implicit (please specify) B.5.3 Not stated/ unclear (please specify)</p>

Section C.: Actual sample

if there are several samples or levels of sample, please complete for each level

<p>C1. What was the total number of participants in the study (the actual sample)?</p> <p><i>if more than one group is being compared, please give numbers for each group</i></p>	<p>C.1.1 Not applicable (e.g. study of policies, documents etc.)</p> <p>C.1.2 Explicitly stated Intervention</p> <p>C.1.3 Explicitly stated control</p> <p>C.1.4 Implicit (please specify)</p>
<p>C.2 What is the gender of the individuals in the actual sample?</p> <p><i>Please give the numbers of the sample that fall within each of the given categories. If necessary refer to a page number in the report (e.g. for a useful table).</i></p> <p><i>If more than one group is being compared, please describe for each group.</i></p>	<p>C.2.1 Not applicable (e.g. study of policies, documents etc.)</p> <p>C.2.2 Single sex (please specify)</p> <p>C.2.3 Mixed sex (please specify)</p> <p>C.2.4 Not stated/unclear (please specify)</p> <p>C.2.5 Coding is based on: Authors' description</p> <p>C.2.6 Coding is based on: Reviewers' inference</p>
<p>C.3 What is the socio-economic status of the individuals within the actual sample?</p> <p><i>If more than one group is being compared, please describe for each group.</i></p>	<p>C.3.1 Not applicable (e.g. study of policies, documents etc.)</p> <p>C.3.2 Explicitly stated (please specify)</p> <p>C.3.3 Implicit (please specify)</p> <p>C.3.4 Not stated/unclear (please specify)</p>
<p>C.4. What is the ethnicity of the individuals within the actual sample?</p> <p><i>If more than one group is being compared, please describe for each group.</i></p>	<p>C.4.1 Not applicable (e.g. study of policies, documents etc.)</p> <p>C.4.2 Explicitly stated (please specify)</p> <p>C.4.3 Implicit (please specify)</p> <p>C.4.4 Not stated/unclear (please specify)</p>
<p>C.5. Other characteristics of the sample</p>	<p>C.5.1. (Add)</p>

Section D: Programme or Intervention description

<p>D.1 Country where intervention carried out (ADD)</p> <p>Add child codes for new countries (as selectable) or select country code</p>	<p>D.1.1 Details</p>
<p>D.2 Location of intervention (ADD)</p> <p>Please use if the study takes place in a correctional institution e.g. Young Offender Institution</p>	<p>D.2.1 Correctional Institution (complete D3)</p> <p>D.2.2 Not in correctional institution (complete D4)</p> <p>D.2.3. Not clear</p>
<p>D.3 Type of Interventions (in Correctional institutions).</p>	<p>D.3.1.ADD</p>
<p>D.3.1. Comparison Programme or intervention description</p> <p>What programme or intervention does the control group receive?</p>	<p>No intervention</p> <p>Usual care/ treatment as usual</p> <p>Alternative treatment</p>
<p>D.6 If a programme or intervention is being studied, does it have a formal name?</p>	<p>D.5.1 Not applicable (no programme or intervention)</p> <p>D.5.2 Yes (please specify)</p> <p>D.5.3 No (please specify)</p> <p>D.5.4 Not stated/ unclear (please specify)</p> <p>D.5.1 Not applicable (no programme or intervention)</p>
<p>D.6 Content of the intervention package</p> <p>TREATMENT INGREDIENTS</p>	<p>D.6.1 Details</p>
<p>D.7 Type/ Aim(s) of the intervention (theory of change)</p>	<p>D.7.1. (add)</p>
<p>D.8 Year intervention started</p> <p>Where relevant</p>	<p>D.8.1 Details</p>
<p>D.9 Duration of the intervention</p> <p>Choose the relevant category and write in the exact intervention length if specified in the report.</p>	<p>D.9.1 Not stated</p> <p>D.9.2 Not applicable</p> <p>D.9.3 Unclear</p> <p>D.9.4 One day or less (please specify)</p> <p>D.9.5 1 day to 1 week (please specify)</p>

<p>When the intervention is ongoing, tick 'OTHER' and indicate the length of intervention as the length of the outcome assessment period</p>	<p>D.9.6 1 week (and 1 day) to 1 month (please specify). D.9.7 1 month (and 1 day) to 3 months (please specify) D.9.8 3 months (and 1 day) to 6 months (please specify). D.9.9 6 months (and 1 day) to 1 year (please specify) D.9.10 1 year (and 1 day) to 2 years (please specify) D.9.11 2 years (and 1 day) to 3 years (please specify) D.9.12 3 years (and 1 day) to 5 years (please specify) D.9.13 more than 5 years (please specify) D.9.14 Other (please specify)</p>
<p>D.10 Intensity of the Intervention</p>	<p>D.10.1 Daily D.10.3 2-4 per week D.10.2 1-2 per week D.10.4 less than weekly (give frequency) D.10.5 Unclear/ not stated not applicable</p>
<p>D.11 Person providing the intervention (tick as many as appropriate)</p>	<p>D.11.1 Counsellor]D.11.2 Health professional (please specify) D.11.3 parent D.11.4 peer D.11.5 Psychologist D.11.6 Researcher D.11.7 Social worker D.11.8 Teacher/lecturer D.11.9 Probation service D.11.10 Prison staff D.11.11 Court worker D.11.12 Police Officer Therapist D.11.13 Other (specify) D.11.14 Unstated/ not clear</p>
<p>D.12 Was special training given to people providing the intervention?</p>	<p>D.12.1 Not stated D.12.2 Unclear D.12.3 Yes (please specify) D.12.4 No not applicable</p>
<p>D.13 What treatment/ intervention did the control/comparison group receive? D.13.1 No control group</p>	<p>D.13.1 No control group D.13.2 treatment as usual (please specify) D.13.3 alternative intervention (please specify)</p>

Use this code if participants acted as own control e.g. in pre-post-test design	D.13.4 Not stated/ unclear no treatment
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Section E: Results & Conclusions

<p>E.1 What are the results of the study as reported by authors?</p> <p>Please give as much detail as possible and refer to page numbers in the report(s) of the study, where necessary (e.g. for key tables).</p> <p>Please use facility for extracting data/ outcomes where appropriate</p>	<p>E.1.1. Official records recidivism</p> <p>E.1.2. Other (please add)</p>
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Section F: Study Method

<p>F.1 Study Timing</p> <p>Please indicate all that apply and give further details where possible</p> <p>F.1.1 Cross-sectional</p> <p>-If the study examines one or more samples but each at only one point in time it is cross-sectional</p> <p>F.1.2 Retrospective</p> <p>If the study examines the same samples but as they have changed over time, it is a retrospective, provided that the interest is in starting at one time point and looking backwards over time</p> <p>F.1.3 Prospective</p> <p>-If the study examines the same samples as they have changed over time and if data are collected forward over time, it is prospective provided that the interest is in starting at one time point and looking forward in time</p>	<p>F.1.1 Cross-sectional</p> <p>F.1.2 Retrospective</p> <p>F.1.3 Prospective</p> <p>F.1.4. Longitudinal</p> <p>F.1.5. Not stated/ unclear (please specify)</p>
<p>F.2 when were the measurements of the variable(s) used as outcome measures made, in relation to the intervention</p> <p>Use only if the purpose of the study is to measure the effectiveness or impact of an intervention or programme i.e. its</p>	<p>F.2.1 Not applicable (not an evaluation)</p> <p>F.2.2 Before and after</p> <p>F.2.3 Only after</p> <p>F.2.4 Other (please specify)</p> <p>F.2.5 Not stated/unclear (please specify)</p>

<p>purpose is coded as 'What Works' in Section B2 –</p> <p>If at least one of the outcome variables is measured both before and after the intervention, please use the 'before and after' category.</p>	
<p>F.3 What is the method used in the study?</p> <p>NB: Studies may use more than one method please code each method used for which data extraction is being completed and the respective outcomes for each method.</p> <p>A=Please use this code if the outcome evaluation employed the design of a randomised controlled trial. To be classified as an RCT, the evaluation must:</p> <p>D). compare two or more groups which receive different interventions or different intensities/levels of an intervention with each other; and/or with a group which does not receive any intervention at all</p> <p>AND</p> <p>ii) allocate participants (individuals, groups, classes, schools, LEAs etc.) or sequences to the different groups based on a fully random schedule (e.g. a random numbers table is used). If the report states that random allocation was used and no further information is given then please keyword as RCT. If the allocation is NOT fully randomised (e.g. allocation by alternate numbers by date of birth) then please keyword as a non-randomised controlled trial</p> <p>B=Experiment with non-random allocation to groups</p> <p>B=Please use this code if the evaluation compared two or more groups which receive different interventions, or different intensities/levels of an intervention to each other and/or with a group which does not receive any intervention at all BUT DOES NOT allocate participants (individuals, groups, classes, etc.) or sequences in a fully random manner. This keyword</p>	<p>F.3.1 A=Random experiment with random allocation to groups</p> <p>F.3.2 B=Experiment with non-random allocation to groups</p> <p>F.3.3 C=One group pre-post test</p> <p>F.3.4 D=one group post-test only</p> <p>F.3.5 E=Cohort study</p> <p>F.3.6 F=Case-control study</p> <p>F.3.7 G=Statistical survey</p> <p>F.3.8 H=Views study. F.3.9 I=Ethnography</p> <p>F.3.10 J=Systematic review</p> <p>F.3.11 K=Other review (non-systematic)</p> <p>F.3.12 L=Case study</p> <p>F.3.13 M= Document study</p> <p>F.3.14 N=Action research</p> <p>F.3.15 O= Methodological study</p> <p>F.3.16 P=Secondary data analysis</p>

should be used for studies which describe groups being allocated using a quasi-random method (e.g. allocation by alternate numbers or by date of birth) or other non- random method.

F.3.3 C=One group pre-post-test

C=Please use this code where a group of subjects is tested on outcome of interest before being given an intervention which is being evaluated. After receiving the intervention the same test is administered again to the same subjects. The outcome is the difference between the pre and post test scores of the subjects.

F.3.4 D=one group post-test only

D=Please use this code where one group of subjects is tested on outcome of interest after receiving the intervention which is being evaluated

F.3.5 E=Cohort study

E=Please use this code where researchers prospectively study a sample (e.g. learners), collect data on the different aspects of policies or practices experienced by members of the sample (e.g. teaching methods, class sizes), look forward in time to measure their later outcomes (e.g. achievement) and relate the experiences to the outcomes achieved. The purpose is to assess the effect of the different experiences on outcomes.

F.3.6 F=Case-control study

F=Please use this code where researchers compare two or more groups of individuals on the basis of their current situation and look back in time to examine the statistical association with different policies or practices which they have experienced (e.g. group size; etc.).

F.3.7 G=Statistical survey

G= please use this code where researchers have used a questionnaire to collect quantitative information about items in a sample or population e.g. parents views on education

F.3.8 H=Views study

H= Please use this code where the researchers try to understand

phenomenon from the point of the 'worldview' of a particular, group, culture or society. In these studies there is attention to subjective meaning, perspectives and experience'. F.3.9

I=Ethnography

I= please use this code when the researchers present a qualitative description of human social phenomena, based on fieldwork

F.3.10 J=Systematic review

J= please use this code if the review is explicit in its reporting of a systematic strategy used for (I) searching for studies (i.e. it reports which databases have been searched and the keywords used to search the database, the list of journals hand searched, and describes attempts to find unpublished or 'grey' literature; (ii) the criteria for including and excluding studies in the review and, (iii) methods used for assessing the quality and collating the findings of included studies.

F.3.11 K=Other review (non-systematic)

K= Please use this code for cases where the review discusses a particular issue bringing together the opinions/findings/conclusions from a range of previous studies but where the review does not meet the criteria for a systematic review (as defined above)

F.3.12 L=Case study

L= please use this code when researchers refer specifically to their design/ approach as a 'case study'. Where possible further information about the methods used in the case study should be coded

F.3.13 M= Document study

M=please use this code where researchers have used documents as a source of data e.g. newspaper reports

F.3.14 N=Action research

N=Please use this code where practitioners or institutions (with or without the help of researchers) have used research as part of a process of development and/or change. Where

<p>possible further information about the research methods used should be coded</p> <p>F.3.15 O= Methodological study O=please use this keyword for studies which focus on the development or discussion of methods; for example discussions of a statistical technique, a recruitment or sampling procedure, a particular way of collecting or analysing data etc. It may also refer to a description of the processes or stages involved in developing an 'instrument' (e.g. an assessment procedure).</p> <p>F.3.16 P=Secondary data analysis P= Please use this code where researchers have used data from a pre-existing dataset e.g. The British Household Panel Survey to answer their 'new' research question.</p>	
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Section G: Methods-treatment of groups

<p>G.1 .If Comparisons are being made between two or more groups*, s please specify the basis of any decisions made for making these comparison Please give further details where possible</p> <p>*If no comparisons are being made between groups please continue to Section I (Methods - sampling strategy)</p>	<p>G.1.1 Not applicable (not more than one group)</p> <p>G.1.2 Prospective allocation into more than one group e.g. allocation to different interventions, or allocation to intervention and control groups</p> <p>G.1.3 No prospective allocation but use of pre-existing differences to create comparison groups e.g. receiving different interventions or characterised by different levels of a variable such as social class</p>
<p>G.2 How do the groups differ?</p>	<p>G.2.1 Not applicable (not in more than one group)</p> <p>G.2.2 Explicitly stated (please specify)</p> <p>G.2.3 Implicit (please specify)</p> <p>G.2.4 Not stated/ unclear (please specify)</p>
<p>G.3 Number of groups For instance, in studies in which comparisons are made between group, this may be the number of groups into which the dataset is divided for analysis</p>	<p>G.3.1 Not applicable (not more than one group)</p> <p>G.3.2 One</p> <p>G.3.3 Two</p> <p>G.3.4 Three</p>

(e.g. social class, or form size), or the number of groups allocated to, or receiving, an intervention	G.3.5 Four or more (please specify) G.3.6 Other/ unclear (please specify)
G.4 If prospective allocation into more than one group, what was the unit of allocation?	G.4.1 Not applicable (not more than one group) G.4.2 Not applicable (no prospective allocation) G.4.3 Individuals G.4.4 Groupings or clusters of individuals (e.g. classes or schools) please specify G.4.5 Other (e.g. individuals or groups acting as their own controls - please specify) G.4.6 Not stated/ unclear (please specify)
G.5 If prospective allocation into more than one group, which method was used to generate the allocation sequence?	G.5.1 Not applicable (not more than one group) G.5.2 Not applicable (no prospective allocation) G.5.3 Random G.5.4 Quasi-random G.5.5 Non-random G.5.6 Not stated/unclear (please specify)
G.6 If prospective allocation into more than one group, was the allocation sequence concealed?	G.6.1 Not applicable (not more than one group) G.6.2 Not applicable (no prospective allocation) G.6.3 Yes (please specify) G.6.4 No (please specify) G.6.5 Not stated/unclear (please specify)
G.7 Study design summary In addition to answering the questions in this section, describe the study design in your own words. You may want to draw upon and elaborate on the answers already given.	G.7.1 Details

Section H: Methods - Sampling strategy

H.1 What is the sampling frame (if any) from which the participants are chosen? E.g. Court records etc.	H.1.1 Not applicable (please specify) H.1.2 Explicitly stated (please specify) H.1.3 Implicit (please specify) H.1.4 Not stated/unclear (please specify)
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<p>H.2 Which method does the study use to select people, or groups of people (from the sampling frame)? E.g. selecting people at random, systematically - selecting, for example, every 5th person, purposively, in order to reach a quota for a given characteristic.</p>	<p>H.2.1 Not applicable (no sampling frame) H.2.2 Explicitly stated (please specify) H.2.3 Implicit (please specify) H.2.4 Not stated/unclear (please specify)</p>
<p>H.3 How representative was the achieved sample (as recruited at the start of the study) in relation to the aims of the sampling frame?</p>	<p>H.3.1 Not applicable (e.g. study of policies, documents, etc.) H.3.2 Not applicable (no sampling frame) H.3.3 High (please specify) H.3.4 Medium (please specify) H.3.5 Low (please specify) H.3.6 Unclear (please specify)</p>
<p>H.4 If the study involves studying samples prospectively over time, what proportion of the sample dropped out over the course of the study? If the study involves more than one group, please give drop-out rates for each group separately. If necessary, refer to a page number in the report (e.g. for a useful table).</p>	<p>H.4.1 Not applicable (e.g. study of policies, documents, etc.) H.4.2 Not applicable (not following samples prospectively over time) H.4.3 Explicitly stated (please specify) H.4.4 Implicit (please specify) H.4.5 Not stated/unclear (please specify)</p>
<p>H.5 For studies that involve following samples prospectively over time, do the authors provide any information on whether, and/or how, those who dropped out of the study differ from those who remained in the study?</p>	<p>H.5.1 Not applicable (e.g. study of policies, documents, etc.) H.5.2 Not applicable (not following samples prospectively over time) H.5.3 Not applicable (no drop outs) H.5.4 Yes (please specify) H.5.5 No</p>
<p>H.6 If the study involves following samples prospectively over time, do authors provide baseline values of key variables, such as those being used as outcomes, and relevant socio-demographic variables?</p>	<p>H.6.1 Not applicable (e.g. study of policies, documents, etc.) H.6.2 Not applicable (not following samples prospectively over time) H.6.3 Yes (please specify) H.6.4 No</p>

Section I: Methods - recruitment and consent

<p>I.1 Which methods are used to recruit people into the study? e.g. Voluntary, court-mandated</p>	<p>I.1.1 Not applicable (please specify) I.1.2 Explicitly stated (please specify) I.1.3 Implicit (please specify) I.1.4 Not stated/unclear (please specify)</p>
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	I.1.5 Please specify any other details relevant to recruitment and consent
I.2 Were any incentives/ disincentives (such as penalties for non-participation) provided to recruit people into the study?	I.2.1 Not applicable (please specify) I.2.2 Explicitly stated (please specify) I.2.3 Not stated/unclear (please specify)
I.3 Was consent sought? Please comment on the quality of consent, if relevant.	I.3.1 Not applicable (please specify) I.3.2 Participant consent sought I.3.3 Other consent sought I.3.4 Consent not sought I.3.5 Not stated/unclear (please specify)

Section J: Methods - Data Collection

J.1 Which methods were used to collect the data? <i>Please indicate all that apply and give further detail where possible</i>	J.1.1 Criminal Justice System records J.1.2 Focus group interview J.1.3 One-to-one interview (face to face or by phone) J.1.4 Observation J.1.5 Self-completion questionnaire (unspecified) J.1.6 self-completion report or diary J.1.7 Examinations J.1.8 Clinical test J.1.9 Practical test J.1.10 Psychological test (unspecified) J.1.11 Hypothetical scenario including vignettes J.1.12 Secondary data such as publicly available statistics J.1.13 Other documentation J.1.14 Not stated/ unclear (please specify) J.1.15 Please specify any other important features of data collection J.1.16 Coding is based on: Author's description J.1.17 Coding is based on: Reviewers' interpretation
J.2 Details of data collection instruments or tool(s). <i>Please provide details including names for all tools used to collect data, and</i>	J.2.1 Explicitly stated (please specify) J.2.2 Implicit (please specify) J.2.3 Not stated/ unclear (please specify)

<p><i>examples of any questions/items given. Also, please state whether source is cited in the report</i></p>	
<p>J.3 Do the authors' describe any ways they addressed the repeatability or reliability of their data collection tools/methods?</p> <p><i>e.g. test-re-test methods</i></p> <p><i>(where more than one tool was employed, please provide details for each)</i></p>	<p>J.3.1 Details J.3.2. No</p>
<p>J.4 Do the authors describe any ways they have addressed the validity or trustworthiness of their data collection tools/methods?</p> <p><i>E.g. mention previous piloting or validation of tools, published version of tools, and involvement of target population in development of tools.</i></p> <p><i>(Where more than one tool was employed, please provide details for each)</i></p>	<p>J.4.1 Details No</p>
<p>J.5 Was there a concealment of which group that subjects were assigned to (i.e. the intervention or control) or other key factors from those carrying out measurement of outcome - if relevant?</p> <p><i>Not applicable - e.g. analysis of existing data, qualitative study.</i></p> <p><i>No - e.g. assessment of reading progress for dyslexic pupils done by teacher who provided intervention</i></p> <p><i>Yes - e.g. researcher assessing pupil knowledge of drugs - unaware of whether pupil received the intervention or not.</i></p>	<p>J.5.1 Not applicable (please say why) J.5.2 Yes (please specify) J.5.3 No (please specify)</p>

Section K: Methods - data analysis

<p>K.1 Which methods were used to analyse the data? <i>Please give details of approach methods including statistical methods.</i></p>	<p>K.1.1 Explicitly stated (please specify) K.1.2 Implicit (please specify) K.1.3 Not stated/unclear (please specify) K.1.4 Please specify any important analytic or statistical issues</p>
<p>K.2 Did the study address multiplicity by reporting ancillary analyses, including sub-group analyses and adjusted analyses, and do the authors report on whether these were pre-specified or exploratory? <i>A Priori context-based moderator analysis/subgroup analysis</i> <i>Post-Hoc context-based moderator analysis/ subgroup analysis</i></p>	<p>K.2.1 Yes (please specify) K.2.2 No (please specify) K.2.3 Not applicable</p>
<p>K.3 Do the authors describe strategies used in the analysis to control for bias from confounding variables? <i>Sufficient assessment of the risk of bias (at least two necessary for sufficient consideration)</i> <i>o Assessment of potential publication bias</i> <i>o Consideration of inter-rater reliability</i> <i>o Consideration of the influence of outliers</i> <i>Attention to the validity of the constructs, with only comparable outcomes combined.</i></p>	<p>K.3.1 Yes (please specify) K.3.2 No K.3.3 Not applicable</p>
<p>K.4 For evaluation studies that use prospective allocation, please specify the basis on which data analysis was carried out. <i>'Intention to intervene' means that data were analysed on the basis of the original number of participants, as recruited into the different groups.</i> <i>'Intervention received' means data were analysed on the basis of the number of participants actually receiving the intervention.</i></p>	<p>K.4.1 Not applicable (not an evaluation study with prospective allocation) K.4.2 'Intention to intervene' K.4.3 'Intervention received' K.4.4 Not stated/unclear (please specify)</p>

<p>K.5 Were appropriate steps taken to establish reliability/validity of analysis</p> <p><i>E.g. assumptions for statistical analysis met</i></p> <p><i>triangulation in qualitative analysis</i></p>	<p>K.5.1 Not appropriate/needed</p> <p>K.5.2 Yes appropriate steps taken (please specify)</p> <p>K.5.3 No appropriate steps not taken (please specify)</p> <p>K.5.4 No stated/ unclear</p>
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Section M. Mechanism/s or mediator/s activated

<p>M.1. Do the authors test for mechanisms and/or mediators? (see aims of intervention)</p>	<p>M.1.2. No</p> <p><input type="checkbox"/> M.1.1. Yes – please specify</p>
<p>M.2. Do authors discuss potential mediators and mechanisms to explain variation in their results? (see discussion section)</p>	<p>M.2.1. No</p> <p>M.2.2 Yes – please specify</p>

Section Q1: CA Weight of Evidence - for systematic reviews

<p>A. Soundness of studies (internal methodological coherence), based upon the study only</p>	
<p>A.1. Did the review ask a clearly-focused question?</p>	<p>A.1.1 Yes</p> <p>A.1.2. No (give details)</p>
<p>A.2. Did the reviewers conduct an exhaustive and purposive search to try and identify all relevant studies? (for systematic reviews)</p> <p>I.e. did they use appropriate search terms, did they capture all important terms with no major omissions, and did they search at least three databases?</p>	<p>A.2.1. Yes</p> <p>A.2.2. No (please give details)</p>
<p>A.3. Did the reviewers assess the quality of the included studies? (2)</p> <p>If question three was a ‘No’ a study could not be judged to be high on weight of evidence A.</p>	<p>A.3.1. Yes</p> <p>A.3.2. No (please give details)</p>
<p>A.4. If the results of the studies have been combined, was it reasonable to do so?</p>	<p>A.4.1. Yes</p> <p>A.4.2. No (please give details)</p> <p>A.4.3. Not combined, and not appropriate to combine results</p>
<p>A. Overall weight of evidence for A (1-3 low, 4-6 medium, 7-8 high)</p>	<p>A. High</p> <p>A. Medium</p> <p>A. Low</p>
<p>B. Appropriateness of the review design and analysis used for answering the question(s) in our review</p>	

B.1. Did the review include the right type of study?	B.1.1. Yes (B.1.2. No (please give details)
B.2. Does the review design and analysis able to identify all the relevant factors/ variables for answering this review question? Was there enough detail to determine mechanisms, mediators and moderators?	B.2.1. Yes B.2.2. No (please give details)
B. Overall weight of evidence for B - included the right type of study, population, impacts etc.	B. High B. Medium B. Low
C. Relevance of the study topic (from the sample, measures, scenario, or other	
C.1. Are the impact measures relevant?	C.1.1. Yes (C.1.2. No (please give details)
C.1.2. Were the interventions included relevant to the UK context	C.1.2.1 Yes (please give details) (please give details) C.1.2.2. No
C.1.3. Is the topic relevant?	C.1.3.1. Yes (please give details) C.1.3.2. No
C. Overall weight of evidence for C	C. High C. Medium C. Low
D. Overall weight of evidence - taking into account A,B,C	D. High D. Medium D. Low

Section Q2: CA Weight of Evidence - for primary studies

A. Soundness of studies (internal methodological coherence), based upon the study only	
A. Overall weight of evidence for A	A. High A. Medium A. Low
B. Appropriateness of the study design and analysis used for answering the question(s) in our review	
B. Overall weight of evidence for B - included the right type of study, population, impacts etc.	B. High B. Medium B. Low
C. Relevance of the study topic (from the sample, measures, scenario, or other	
C. Overall weight of evidence for C	C. High C. Medium C. Low
D. Overall weight of evidence - taking into account A,B,C score	D. High +++ D. Medium ++ D. Low +