



THE CAMPBELL COLLABORATION

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# Protocol for a systematic review: Community-oriented policing's impact on interpersonal violent crime in developing countries

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## BACKGROUND FOR THE REVIEW

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Violence is a global public health problem with complex causes at the individual, family, community and societal levels (World Health Organization [WHO], 2002a). Violence can be divided into three broad categories according to the perpetrator of the violent act: interpersonal violence; self-directed violence; and collective violence (WHO, 2002b). This review will focus specifically on the category of interpersonal violence. Worldwide, the direct impact of interpersonal violence is estimated at 1400 deaths per day (WHO, 2002b) and the economic cost is estimated to be between \$95 billion and \$163 billion per year (Geneva Declaration Secretariat, cited in Willman & Makisaka, 2010). For victims, mortality, physical and psychological damage, disability, and social problems are immediate and long-lasting outcomes of violence (WHO, 2002a).

The World Health Organization (WHO) defines violence as: “The intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment or deprivation.” (WHO Global Consultation on Violence and Health, cited in WHO, 2002b, p. 5). Communities are at risk of violence when violence has historically been present in the area, when firearms are easily available and sections of the population have been trained in their use (United Nations Office on Drugs and Crime [UNODC] & the Latin America and the Caribbean Region of the World Bank, 2007). Weakness of state security institutions, including the criminal justice system and the military, is also associated with higher levels of violence at the societal level (UNODC, 2005). Rapid urbanization, low education levels, and high income inequality, especially when divided along religious, ethnic, or racial lines, further increase the risks of violence in a society (Willman & Makisaka, 2010).

Developing countries are particularly affected by violent crime, with interpersonal violence a leading cause of death and disability (Hofman, Primack, Keusch, & Hrynkow, 2005; Liebling & Kiziri-Mayengo, 2002; Morrison, Ellsberg, & Bott, 2007; Seedat, Van Niekerk, Jewkes, Suffla, & Ratele, 2009). Interpersonal violence can indirectly suppress growth in developing countries if local or international businesses refrain from investing socially or economically in developing areas plagued by violence (Akpokodje, Bowles, & Tigere, 2002). Fear of violence also prohibits development by preventing local citizens from traveling to work and school, encouraging capital flight, increasing brain drain as educated citizens leave troubled areas, and lowering social cohesion (Willman & Makisaka, 2010).

The World Health Organisation typology of violence categorises violent acts into self-directed violence, interpersonal violence and collective violence, and notes that whilst the nature of the violent act may be similar across categories, the causal mechanisms and motives for each category of violence are very different (WHO, 2002b). The nature of effective interventions will also differ across categories, and therefore the effectiveness of interventions would need to be reviewed separately for each category. Whilst collective violence is a clear threat to the stability and growth of developing countries, the complexities of the specific contexts of collective violence – such as war, state violence, genocide, or terrorist activity – mean that interventions to combat collective violence are likely to be dependent on socio-political context, and are considered to be outside the scope of the present review. Our review focuses on interpersonal violent crimes in developing countries. We define interpersonal violence as those acts of violence – such as assault, homicide, rape, kidnapping, sexual assault, and maltreatment – committed by one person or small group against another person or small group.

This review focuses on community-oriented policing interventions and their ability to prevent or reduce violence in developing countries. Despite the continuity implied by the terms “developing” and “developed,” we propose that there are significant and qualitative differences between community-oriented policing initiatives in established democracies and those that are implemented in developing countries. Variability in institutional histories and capacities of police agencies in developed and developing countries creates great contextual differences in the way community-oriented policing is conceptualized and implemented in developed versus developing democracies. We recognize that what might be deemed a successful community-oriented policing intervention in developed countries might be fundamentally inappropriate or interpreted quite differently in the context of policing in developing nations. These developing countries may have low police professionalism, poor relations between police and the public, under-equipped police services, an unstable political and/or socio-economic situation, and, in some cases, low community enthusiasm and participation (Eijkman, 2006; Frühling, 2007, 2011). Moreover, scholars argue that western models of community-oriented policing fail to be adaptable to local culture, histories and experiences, and are insensitive to social contexts (Brogden, 2002). Overall, we argue that the histories and structural context of policing in developed and developing countries are so fundamentally different that we plan to include only community-oriented policing interventions that target populations in developing countries. To date there are no published systematic reviews or meta-analyses examining the impact of community-oriented policing in developing countries. This review seeks to establish whether community-oriented

policing is a successful strategy to reduce interpersonal violent crime in developing countries.

Policing and police agencies in many emerging democracies and developing countries have very different histories to those in the developed world. In developed democracies, police reform has generally followed what Kelling and Moore describe as three major eras of policing: the political era, the professional era and the community policing era (see Kelling & Moore, 1988). Whilst policing scholars debate the detail of these eras in policing history (see Bayley, 1994; Skogan, 1990), they argue that policing in the 21st century is most likely characterized by a new era of policing (Bayley & Nixon, 2010; Mazerolle & Ransley, 2005; Stone & Travis, 2011). Policing in democratic societies has largely moved from being highly politicized agencies – responding to calls for service based on political demands, deriving their legitimacy from local political authorities, with a broad mandate to deal with a range of social issues from hunger to homelessness to riot control – to going through the professionalization of the occupation during the 1970s, to establishing the foundations for community-oriented policing during the late 1980s and early 1990s. We recognize the complexities of community-oriented policing and the initiatives (e.g. foot patrols, problem solving) that police implement in support of community-oriented policing (see Schols, 2011; Taye, 2011). Yet we argue that the types of initiatives that are implemented under the auspices of community-oriented policing evolved, in large part, from the failures of policing and crime control that were hallmarks of the professional era in developed democracies (see Bayley, 1994; Weisburd & Eck, 2004). We also note that different police agencies progressed through these eras at different time periods in developed democracies.

Many police departments throughout the western, developed world have changed their emphasis from an almost exclusive focus on crime control to more fully embrace crime prevention and problem-solving (but see Goldstein, 2003). This transformation process has led the police to become more consultative with community members and stakeholders, adopting a variety of new approaches to policing under the auspices of community-oriented policing (e.g. see Skogan & Hartnett, 1997). There is also a growing body of scientific evidence to suggest that, contrary to the performance of policing during the professional/reform era, the police can be effective at reducing crime problems when they adopt the key principles of community-oriented policing (see Sherman & Eck, 2002; Weisburd & Eck, 2004). There is evidence of the success of community-oriented policing practices including: foot patrols (Trojanowicz, 1986); directed patrols in crime hot spots (Koper, 1995; Sherman & Weisburd, 1995); specific deterrence for some categories of offenders such as employed domestic batterers (Sherman & Berk, 1984); proactive arrests particularly for traffic and disorderly conduct (Katz, Webb, & Schaefer, 2001; Weiss & Freels,

1996); drug market crackdowns (Kleiman, 1988; Sherman & Rogan, 1995; Weisburd & Green, 1995; Zimmer, 1990); drink-driving road blitzes (Homel, 1993); and problem-oriented policing (Braga et al., 1999; Kennedy, Piehl, & Braga, 1996; Sherman & Eck, 2002). Additionally, some elements of community-oriented policing activities such as door-to-door visits (Laycock, 1991; Skogan, 1990) and neighborhood watch (see Bennett, Farrington, & Holloway, 2009) are clearly effective.

Bayley (1994) uses the CAMPS acronym to describe community-oriented policing: *consultation* with citizens on crime problems; *adaption* of organizational structures from being controlled centrally to being decentralized; *mobilization* of police to include citizens in crime prevention and reduction initiatives; and the adoption of a *problem-solving* approach to crime control and prevention. Similarly, Kelling and Moore (1988) identify seven major characteristics of community-oriented policing: (1) the source of authority in community-oriented policing stems from the community; (2) the primary function of community-oriented police agencies is balanced between crime control, crime prevention and problem solving; (3) the organizational design of agencies adopting community-oriented policing is decentralized, task-oriented and uses matrix structures to prevent and respond to crime problems; (4) the relationship to the external environment is consultative, where the police defend values of law and professionalism, but listen to community concerns; (5) agencies adopting the community-oriented policing approach channel demand for police service through analysis of underlying problems rather than via emergency calls; (6) foot patrols and problem solving predominate as the preferred tactics and technology of community-oriented police agencies; and (7) organizational performance is measured by quality of life outcomes and citizen satisfaction, not by the number of arrests or other indicators of crime control (see also Skogan & Hartnett, 1997; Weisburd & Braga, 2006).

We argue that developed country police agencies have experienced all three eras of change and development over a period of nearly 100 years and are situated very differently to police agencies in emerging democracies. In contrast to developed democracies, developing countries have long histories of military rule, with no experience of a civilian police (Brogden, 2002). Indeed, these countries have experienced only great politicization of their policing services and have often skipped over the professionalization era in an effort to quickly establish community-oriented policing approaches as part of rapid state building activities (see for example Goldsmith & Dinnen, 2007; Goldsmith & Harris, 2010). These developing countries often lack the physical infrastructure and governance mechanisms that form an essential background to community-oriented policing in developed democracies.

We focus this review on the impact of community-oriented policing (COP) on interpersonal violent crime. For our review, we follow Weisburd, Bennett, Gill and Telep's (2012) definition of COP:

“...the intervention must involve a consultation or collaboration between the police and local citizens for the purpose of defining and/or dealing with local crime and disorder problems....Consultation with the public includes direct consultation with the public as a whole (all citizens within an area) or indirect consultation; for example, through a crime prevention partnership in which the public are represented by a selected or elected group of citizens...In other words, community involvement is the key distinguishing characteristic between COP and non-COP programs. We recognize that COP often overlaps considerably with other policing innovations like problem-oriented or hot spots policing, which have been the subject of Campbell systematic reviews in their own right, so the community element is the crucial dimension along which we distinguish the present review.” (Weisburd et al., 2012, p. 4).

In our review, we will follow Weisburd and colleagues' (2012) decision to identify community consultation as the characteristic that most clearly distinguishes community-oriented policing interventions from non-community-oriented policing interventions. We therefore accept, as a basic ingredient of community-oriented policing, any intervention that involves police–community consultation. In line with Weisburd et al. (2012), we will consider any intervention that involves the implementation of policing strategies and/or organizational change (e.g., decentralization, streamlining of management, increased responsibility at the street level, training of officers in community-oriented policing principles, and recruitment policies), as long as the primary aim of the program is to put the local community at the center of efforts to define and tackle crime problems.

We recognize that the exact mechanism of community consultation varies, but may include meetings, surveys, the creation of representative councils, directives to police to interact with citizens in non-confrontational settings, and the creation of a citizen liaison position within police. One example of a community-oriented policing initiative undertaken in a developing country is the *Fico Vivo* program, implemented in the state of Minas, Brazil, in an attempt to reduce the high rates of homicide, particularly among young people (Alves & Arias, 2012). Based on the success of *Operation Ceasefire* in Boston, USA, the *Fico Vivo* program built a targeted, community-oriented policing intervention which also provided social assistance to reduce the dependence of young people on criminal groups. One of the central processes of community consultation in the *Fico Vivo* program was the presence of trained officers in the target community for eight hours each day. The officers' aim was to establish ties within the

community and to develop an in-depth local knowledge of the area. The evaluation of this program used a time-series design measuring annual homicides in five targeted locations. Another example of a community-oriented policing intervention in a developing country is the *Safer Commune Program* implemented in 2001 in Chile (Ruprah, 2008). The program aimed to strengthen local capacity for crime prevention. It included the implementation of government and police–community consultation and participation, such as Citizen Security Committees, which were chaired by the local mayor and comprised of representatives from police, local government and the public. The evaluation report for the *Safer Commune Program* provided effect sizes for multiple measures of crime, reported as the difference in change over time between the treated municipalities and non-treated control municipalities (Ruprah, 2008).

Unlike the Weisburd et al. (2012) review of community-oriented policing, our review will consider all community-oriented policing activities targeting both people and/or places. That is, we will not limit our review to community-oriented policing interventions with outcomes that capture the impact of the intervention on just geographic units of aggregation (like beats, suburbs, neighborhoods, communities or regions). Community-oriented policing studies that capture the impact on individuals or places (or both) will be included in our review. We will include, and code for, all types of individuals: young people, women, and all categories of race and ethnicity. We will, of course, separate the outcomes by people or place at the meta-analytic stage of the review.

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## **OBJECTIVES**

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The primary objective is to provide a systematic review of the impact of community-oriented policing interventions designed to prevent and reduce interpersonal violent crime in developing countries. This review aims to determine whether community-oriented policing interventions are effective in reducing interpersonal violent crime in developing countries. The review also aims to determine the reasons why community-oriented policing interventions fail or succeed in developing countries.

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## METHODOLOGY

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### CRITERIA FOR INCLUSION AND EXCLUSION OF STUDIES IN THE REVIEW

#### Types of participants

The intervention must be implemented in a developing country, as defined by the World Bank (see Table 1) <sup>3</sup>. If the outcomes of interest are measured at an aggregate level, the units of analysis will be any geographic place (e.g. community, city, province, state, region, or country) within a developing country. If the outcomes of interest are measured at an individual level, the unit of analysis will be the individual. We will separate outcomes by unit of analysis in the meta-analysis stage of the review.

#### Types of interventions

To be eligible, the intervention must be implemented by public police and include some mechanism of community consultation. Interventions that do not explicitly contain a mechanism for community consultation will not be included, even if they are called community-oriented policing (e.g. increased foot patrols).

#### Comparison/ Study design

To be considered high quality, studies must use a quantitative evaluation design with a valid comparison group. Acceptable study designs include randomized trials, natural experiments, time-series designs, regression discontinuity designs, and any quasi-experimental design with a matched or non-matched comparison group.

We anticipate that some evaluations may be in the form of time-series designs, and may not include a valid comparison group. We will include time-series evaluations without a comparison group in our review; however, we note that the quality of these studies may be lower than that of studies that include a valid comparison group, and we will conduct subgroup analysis using study quality as a predictor variable during the synthesis stage.

Only studies that assign treatment and collect data at a similar geographic level (e.g. municipality) will be included.

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<sup>3</sup> <http://data.worldbank.org/about/country-classifications/country-and-lending-groups>



## Outcomes

The intervention must aim to impact interpersonal violent crime. We will only include evaluations of community-oriented policing initiatives that either: (1) are explicitly aimed at impacting interpersonal violent crime, as stated in the source document; or (2) record some type of interpersonal violent crime as an outcome.

We will focus on violence at the interpersonal level, including acts or omissions perpetrated by an individual or small group against another individual or small group. The category of interpersonal violence includes most behaviors typically considered violent crime across countries and jurisdictions, such as homicide, rape and assault.

We will consider any violent act that is classified as a crime in one of the countries under study to be an interpersonal violent crime, even if it is not considered as such in all of the countries under study. For example, domestic violence and child maltreatment are considered crimes in some countries but not others. For the purposes of this review, we will include domestic violence and child maltreatment under the definition of violent crime.

We will not include outcomes relating to self-directed harm (acts or omissions perpetrated by an individual against himself or herself) or collective violence (acts or omissions perpetrated by a state or large organized group against another state or large organized group). Specifically, we will not include the following outcomes: self-harm, suicide, terrorist activity, rioting, looting, smuggling, gang warfare, genocide, war or political conflict. We will exclude self-directed and collective violence because these forms of violence have different causal mechanisms to interpersonal violence, and therefore the impact of interventions would not be comparable. For example, a community-oriented policing intervention designed to reduce homicide rates in high-crime locations would not be expected to influence collective demonstrations against the local political authority.

We follow the World Health Organisation in their definition of collective violence as including:

*“... crimes of hate committed by organized groups, terrorist acts and mob violence. ... war and related violent conflicts, state violence and similar acts carried out by larger groups. ...attacks by larger groups motivated by economic gain – such as attacks carried out with the purpose of disrupting economic activity, denying access to essential services, or creating economic division and fragmentation.”* (WHO, 2002b, p.6)

We will therefore exclude human trafficking for sex purposes and extensive drug-related violence perpetrated by large organised drug gangs, as these violent acts are committed by

larger groups motivated for economic gain, and fall under the umbrella of collective violence. We will, however, include violent crime committed by an individual or small group against an individual or small group, if it falls outside of the framework of collective violence as defined by WHO (2002b). We anticipate that the distinctions between collective violence and interpersonal violence may at times be unclear, as the distinctions between large and small groups are fuzzy. We will assess each individual outcome in line with the typology developed by WHO (2002b).

Only interventions that aim to impact interpersonal violent crime will be included in the review; thus, it would make sense to limit the review to interventions that measure interpersonal violent crime as an outcome. However, the difficulties associated with recording and accessing data on violence in developing countries may restrict primary studies' range of outcome measures, so that they are only able to provide a proxy measure (such as aggression) even when the intervention is explicitly intended to impact interpersonal violent crime. The measures may include levels of specific violent crimes (e.g. homicide, robbery), aggregate violent crime rates, or self-reported victimization. Homicide data are recognized as the most reliable internationally, as homicides are regularly reported to the police in most countries (UNODC, 2007; UNODC & the Latin America and the Caribbean Region of the World Bank, 2007). Therefore, officially recorded homicides will be coded as a preferred outcome measure. Other official statistics will be recorded, although these suffer from reporting biases and can therefore be misleading as outcome statistics. Self-reported victimization surveys are also good data sources, particularly international ones such as the United Nations Office on Drugs and Crime biannual crime trends surveys, because they use a standard definition across countries (UNODC, 2007). Where possible, we will code an outcome measure that is roughly comparable across countries: either homicide rates, or self-reported victimization.

### **Exclusion criteria**

Studies that were published prior to 1975 or report on interventions that took place prior to 1975 are not eligible for review. Whilst the era of community policing is generally recognised as beginning in the 1980s, we extend the timeframe of our search to include earlier interventions that may be precursors to the general trend. We do however, limit the search to no earlier than 1975 to ensure that the interventions found are relevant to current policing practice.

We will exclude community-oriented policing interventions that are not implemented by public police, or do not explicitly include some mechanism for community consultation.

We will exclude evaluations of interventions implemented in countries categorized as developed by the World Bank.

We will exclude evaluations where two treatment programs are compared to one another with no baseline business-as-usual comparison group.

We will exclude outcomes relating to self-directed harm, or collective violence (acts or omissions perpetrated by a state or large organized group against another state or large organized group).

We will exclude interventions that were implemented as part of a response to an on-going or recent violent conflict that is considered a substantively different intervention context to the majority, or that developed from a specific conflict or election context, or that were aimed at preventing political violence.

### **Settings and timeframe**

We will include only interventions that were reported on in 1975 or later. We will include only interventions implemented in countries defined by the World Bank as developing.

### **SEARCH STRATEGY FOR IDENTIFICATION OF RELEVANT STUDIES**

The search used for this review was part of a wider search for policing interventions that sought to reduce violence in developing countries, funded by a grant from Global Development Network via 3ie's Open Window Round 3 (SR3/1277) to Professor Lorraine Mazerolle at the University of Queensland.

Our search strategy will include published and unpublished literature made available between 1 January 1975 and 31 December 2012. We anticipate that most of the studies written in a language other than English will be in either Spanish or Portuguese, and so limit our search to studies written in English, Spanish, or Portuguese. The geographic location of studies will be limited to countries classified as “developing” according to World Bank country classifications (<http://data.worldbank.org/about/country-classifications/country-and-lending-groups>). The relevant regions and countries used in our keyword search are shown in Table 1.

**Table 1. Countries classified as "developing" and their corresponding region (World Bank, 2011)**

<b>Regions</b>	<b>Countries</b>
East Asia and Pacific	American Samoa; Cambodia; China; Fiji; Indonesia; Kiribati; Korea, Dem. Rep.; Lao, People's Dem. Rep; Malaysia; Marshall Islands; Micronesia, Fed. Sts; Mongolia; Myanmar (also searched as Burma); Palau; Papua New Guinea; Philippines; Samoa; Solomon Islands; Thailand; Timor-Leste; Tuvalu; Tonga; Vanuatu; Vietnam
Europe and Central Asia	Albania; Armenia; Azerbaijan; Belarus; Bosnia and Herzegovina; Bulgaria; Georgia; Kazakhstan; Kosovo; Kyrgyz Republic; Latvia; Lithuania; Macedonia, Former Yugoslav Rep.; Moldova; Montenegro; Romania; Russian Federation; Serbia; Tajikistan; Turkey; Turkmenistan; Ukraine; Uzbekistan
Latin America and the Caribbean	Antigua and Barbuda; Argentina; Belize; Bolivia; Brazil; Chile; Colombia; Costa Rica; Cuba; Dominica; Dominican Republic; Ecuador; El Salvador; Grenada; Guatemala; Guyana; Haiti; Honduras; Jamaica; Mexico; Nicaragua; Panama; Paraguay; Peru; St Kitts and Nevis; St Lucia; St Vincent and the Grenadines; Suriname; Uruguay; Venezuela, RB
Middle East and North Africa	Algeria; Djibouti; Egypt, Arab Rep.; Iran, Islamic Rep.; Iraq; Jordan; Lebanon; Libya; Morocco; Syrian Arab Rep.; Tunisia; West Bank and Gaza; Yemen, Rep.
South Asia	Afghanistan; Bangladesh; Bhutan; India; Maldives; Nepal; Pakistan; Sri Lanka
Sub-Saharan Africa	Angola; Benin; Botswana; Burkina Faso; Burundi; Cameroon; Cape Verde; Central African Republic; Chad; Comoros; Congo, Dem. Rep.; Congo, Rep.; Cote d'Ivoire (also searched as Ivory Coast); Eritrea; Ethiopia; Gabon; Gambia, The; Ghana; Guinea; Guinea-Bissau; Kenya; Lesotho; Liberia; Madagascar; Malawi; Mali; Mauritania; Mauritius; Mayotte; Mozambique; Namibia; Niger; Nigeria; Rwanda; Sao Tome and Principe; Senegal; Seychelles; Sierra Leone; Somalia; South Africa; Sudan; Swaziland; Tanzania; Togo; Uganda; Zambia; Zimbabwe

The search and document retrieval strategy was intended to capture a range of published and unpublished literature across disciplines and involved 5 steps.

1. Keyword search of online journal databases

Search keywords were piloted and refined to ensure optimum sensitivity and specificity. A list of keywords is provided in Table 2. These keywords were revised according to the results of a pilot search and feedback from the project advisory group. A list of search locations is provided in Table 3. As with the keywords, the list of databases was refined according to the results of a pilot search and feedback from reviewers and the project advisory group.

## 2. Hand search of relevant journals not indexed on databases

Preliminary investigations conducted by our research team suggest that some journals dealing with the subject matter of interest to this review are not indexed in major online databases, particularly journals focused on a particular developing country. Therefore, these journals will be hand searched. These journals are included in Table 3.

## 3. Hand search of publications sections of relevant agency websites

A list of relevant agencies was determined in discussion with the project advisory group, and the agency websites were searched for relevant publications. A list of these agencies is provided in Table 3.

## 4. Hand search of reference lists of relevant documents

The research team will check the references of each eligible study included in the review to determine if there are other studies of interest that had not been retrieved in the original search. Any new literature of interest will be obtained and assessed for eligibility.

## 5. Contacting prominent scholars and policymakers for feedback on completeness of list

Once we have completed the list of eligible studies it will be sent to the project Advisory Group to determine whether or not we missed any important sources.

## **Search keywords**

The search will be undertaken by formulating a list of keywords, presented in Table 2, grouped under four broad categories: interventions, outcomes, locations, and evaluations. These keywords were refined in consultation with the project advisory group.

The combination of keywords in searches will be dependent on the search protocol of each database. Where possible, compound terms (e.g. law enforcement) will be considered as a single term and entered into searches in quotes (i.e. "law enforcement"), ensuring that the database searches for the entire term, rather than separate words. In addition, terms with multiple iterations from a stem word (e.g. violence, violent) will be entered as word\* (e.g. violen\*). Keywords will be combined using Boolean operators "AND" and "OR". Terms will be combined with "OR" within each group and "AND" between groups, for example: (police OR policing OR "law enforcement") AND (violen\* OR robbery OR rape OR assault OR maltreatment OR homicide). While the larger commercial databases such as Scopus and Web of Knowledge allow the entry of all keywords, the combining of searches using a "search history" function, and the use of specific search fields (e.g. title/abstract/topic), others are

more limited. We will use Google Scholar to search some websites (e.g. African Development Bank, AusAID, USAID) using the “site” function.

**Table 2. Keywords for the systematic literature search**

<b>Intervention keywords</b>	<b>Outcome keywords</b>	<b>Location keywords</b>	<b>Evaluation filters</b>
“Law enforcement”	Violen* (violence, violent)	“Developing country”	Intervention*
Police	Robber*	Region-specific keywords <sup>4</sup>	Evaluat*
Policing	Rape	Country-specific keywords <sup>5</sup>	Compar*
	Assault*	“Third world”	Impact
	Maltreatment	“Low income countr*”	Assess*
	Homicide*	“Imic”	Effect*
	Murder*	“Transitional countr*”	
	Kill*	“Emerging economy*”	
	Mugging*		
	“Sex crime*”		
	“Wife beat*”		
	“Spouse beat*”		
	Batter*		

### **Search locations**

We will use electronic databases/resources accessible online and through the University of Queensland Library. As we consider it important to locate “grey” literature or material that is not formally published, such as working papers, unpublished dissertations, and government, non-government and technical reports, we will also search relevant websites such as the various Development Bank sites, AusAID and USAID. The databases and websites to be searched are listed in Table 3.

<sup>4</sup> The regions listed in Table 1.

<sup>5</sup> The countries listed in Table 1.

**Table 3. Online databases and websites used in the 3ie funded systematic search**

Type of Source	Search Locations
Journals & Books	Africa-Wide Cambridge University Library & Dependent Libraries Catalogue Criminal Justice Abstracts via EBSCO Directory of Open Access Journals JSTOR OpenGrey ProQuest (Databases selected: British Periodicals; Index Islamicus; PAIS International; ProQuest Research Library; ProQuest Social Science Journals; Social Services Abstracts; Sociological Abstracts; Worldwide Political Science Abstracts) PsychInfo ScienceDirect Scopus Web of Knowledge Wiley Online Library
Reports	African Development Bank website Asian Development Bank website AusAID website British Library for Development Studies database ELDIS IDEAS: International economics research database Inter-American Development Bank website International Initiative for Impact Evaluation (3ie) database JOLIS: World Bank Group and International Monetary Fund online database United Nations Development Programme website United Nations Office on Drugs and Crime website USAID website WHO Collaborating Centre for Violence Prevention website ( <a href="http://www.preventviolence.info">www.preventviolence.info</a> ) WHO Global Health Library
Dissertations	ProQuest Digital Dissertations index ProQuest Dissertations & Theses at the University of Queensland

### Non-English search

Our search of languages other than English will be limited to Spanish and Portuguese. Keywords (shown in Table 4) were translated by the Institute of Modern Languages at the University of Queensland ([www.iml.uq.edu.au](http://www.iml.uq.edu.au)) and will be used to search two Spanish databases: Clase and Periódica, both of which are accessed through the library at the Universidad Nacional Autónoma de México (<http://dgb.unam.mx/index.php/catalogos>).

We will conduct separate searches for each keyword category using the “palabra clave” (keyword) field, and then combine each search using the “refinar búsqueda” (refine search)

function. While the keywords we will use are Spanish, preliminary investigation showed that the search produces records in both Spanish and Portuguese. Relevant articles will be translated into English.

**Table 4. Keyword Spanish translations**

<b>Keyword category</b>	<b>English keyword</b>	<b>Spanish translation</b>
Intervention	Police	Policía
	Policing	Mantenimiento del Orden/Vigilancia
Outcome	Violence	Violencia
	Rape	Violación
	Robbery	Robo
	Assault	Agresión/asalto/ataque/Agresión sexual
	Maltreatment	Maltrato
	Homicide	Homicidio
Evaluation filters	Intervention	Intervención
	Evaluation	Evaluación
	Comparison	Comparación
	Impact	Impacto

## **SCREENING AND CODING OF STUDIES**

### **Title and abstract screening**

Trained research assistants will use a set of preliminary eligibility criteria to assess, on the basis of titles and abstracts, whether the studies returned from the systematic search are suitable for inclusion in the systematic review. The preliminary criteria are: (1) does the article discuss policing AND (2) does the article discuss violence AND (3) does the article concern a developing country? At this stage a very broad definition of the above criteria will be applied, allowing for only obviously irrelevant sources to be excluded. For example, studies that are returned from the search keyword “rape” but actually concern crop production, will be removed. Similarly, studies concerning interventions in the United States that appear because of the search term “Georgia” will also be removed. The decision on each abstract will be double-checked by a second screener. Screening discrepancies will be resolved by discussion between reviewers, in consultation with a third reviewer if required.



## Detailed coding of studies

Trained research assistants will use a standardized coding sheet, along with a detailed coding companion document (available in Section 8) to code in detail the documents that have been screened as potentially eligible. The coding sheet will be implemented as a Microsoft Access database. The coding sheet will contain information on study eligibility criteria, search information, reference information, intervention information, population under study, unit of analysis, quality of research design, outcomes reported, effect size data, authors' conclusions, and authors' comments on factors impacting the success or failure of the intervention. Table 5 shows a summary of the fields to be coded. Half of the studies will be double coded by a second reviewer to ensure accuracy and consistency of information capture; however, for those studies where data can be extracted to calculate an effect size, all coding and effect size data will be checked by a second reviewer. Coding discrepancies will be resolved by discussion between reviewers, in consultation with a third reviewer if required.

**Table 5: Summary of coding fields**

Study ID	Evaluated by
Document ID	Unit of treatment assignment
Author name & publication date	Unit of analysis
Full reference (APA style)	Conflict context Y/N
Coder initials	Political activity context Y/N
Date coded	Other contextual information
Unique study Y/N	Implemented as planned Y/N
Developing country Y/N	Agency partnerships successful Y/N
After 1975 Y/N	Issues in implementation Y/N
Intervention Y/N	Ethical issues Y/N
Aimed at violent crime Y/N	Monitoring of treatment delivery Y/N
Policing intervention Y/N	Treatment integrity Y/N
Community-oriented policing Y/N	Intent to treat analysis Y/N
Impact evaluation Y/N	Differential attrition Y/N
Document type	Sample bias Y/N
Country of intervention	Randomized Y/N
Language	Type of comparison group
Research timeframe	Problem with research standards Y/N
Problem addressed by intervention	Age
Intervention name	Gender

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Intervention strategy (brief)	SES
Full description of intervention strategy	Other characteristics of sample
Theoretical background to intervention	Outcome category
Comparison group details	Conceptual definition of outcome
Police led Y/N	Operational definition of outcome
Other components of intervention	Data source
Funded by	Authors' conclusions
	Effect size

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## **ASSESSMENT OF STUDY QUALITY**

Based on preliminary findings, we do not anticipate that the search will identify many Randomized Control Trials of community-oriented policing interventions. Therefore, study quality assessment tools based strictly on the quality of randomization will not be appropriate for this review. We will assess study quality based on the following coding fields: Monitoring of treatment delivery, Treatment integrity, Intent to treat analysis, Differential attrition, Sample bias, Randomized, Type of comparison group, and Problem with research standards. We will not allocate a score or index, as extreme failure in one area of study quality can be more serious than minor breaches of quality across multiple arenas. Rather we will make a critical qualitative decision for each study as to whether there is a clear risk of bias such that the study quality is sufficiently low to warrant being labelled as a “low quality study”. Moderator analyses of study quality will be conducted to determine whether low quality studies should be analysed separately from other studies in the final meta-analyses.

## **STATISTICAL PROCEDURES AND CONVENTIONS**

### **Data extraction for meta-analysis**

For the studies that quantitatively evaluate community-oriented policing interventions, effect size data or data that can be used to calculate a standardized effect size will be recorded in free-text format as part of the standardized coding sheet. A second reviewer will double-check the coding and data extraction for every study that contains effect size data. All relevant data will be input into Comprehensive Meta-Analysis software (BioStat, 2005) to calculate standardized effect sizes and their standard errors.

## **Effect size metric and calculations**

For continuous outcomes we will use Hedges'  $g$  as the measure of effect size, as it includes an adjustment for estimator bias in smaller samples (Borenstein, 2009). If binary outcomes are found we will calculate a log odds ratio as the measure of effect size. For studies that report before and after crime numbers or rates for intervention and control areas, where the unit of analysis is the geographic area and therefore  $n=1$  for both treatment and control, we follow Bowers (2011) and Farrington (2007) in calculating log odds ratios.

We will input all effect size data into Comprehensive Meta-Analysis software (BioStat, 2005) to allow the calculation of standardized effect sizes and their standard errors, and the conversion between effect size types, to ensure that a common metric is used. Should an outcome be measured across different studies using binary data in some studies and continuous data in others, we will convert all effect sizes and their variances for this outcome to a common metric. For example, log odds ratios will be converted first to Cohen's  $d$  and then to Hedges'  $g$ , and the meta-analysis will be conducted on all outcomes using Hedges'  $g$  as the effect size of choice. Following Borenstein (2009), we argue that this approach whilst imperfect is preferable to conducting two separate meta-analyses. If this approach is required, we will conduct a sensitivity analysis to compare the results with those obtained by conducting separate meta-analyses.

Community-oriented policing studies frequently use an interrupted time-series design with observations at multiple time points before and after the implementation of an intervention in an area. Some studies use comparison groups in addition to multiple time points. For studies that collect data at multiple time points, we assume an underlying uniform distribution for violent crime, and a step function for the effect of the intervention on the outcome. We will therefore calculate an average effect size for the time points before the intervention, and an average effect size for the time points after the intervention, and compare the two. We recognize that there are many other ways to deal with this type of time series data; however, given the research questions and the likely nature of the intervention effect, we believe that this method is the most defensible and parsimonious.

Only studies that assign treatment and collect data at a similar geographic level (e.g.. municipality) will be included.

## **Criteria for determination of independent findings**

There are two issues of independence that will need to be addressed in this review. The first is that documents may report on multiple studies, which may in turn report multiple

outcomes. Documents will be allowed to contribute multiple effect sizes, but only one effect size for each outcome. If a study reports multiple effect sizes for the one outcome, the mean effect size for that outcome will be calculated using Comprehensive Meta-Analysis 2.0 (Biostat, 2005).

The second issue of independence is that multiple documents may report on the same data. In these instances, we will seek to identify which documents are related, and use all sources to contribute to the one calculation of effect size.

### **Method of synthesis**

If the search results in the identification of suitable data for meta-analysis, we will use meta-analysis to synthesize the results of the included evaluations for each equivalent outcome reported. We will only combine results of evaluations if the outcomes are conceptually equivalent. For example, if studies report on homicide, rape and an aggregate measure of violent crime, we will conduct three separate meta-analyses – one for each outcome – as we do not consider that these three outcomes are conceptually equivalent. We will conduct separate meta-analyses for outcomes measured at different levels of analysis (eg individual, municipality, country).

We will use a random-effects model and inverse variance weighting to combine study results, given the likely heterogeneity in the interventions and populations studied. We will examine sources of heterogeneity in the intervention impact, including intervention strategy, location, implementing agency, population under study, and evaluation quality using moderator or subgroup analysis (analogue to the ANOVA) for categorical outcomes and meta-regression for continuous predictors.

We will present the results of the meta-analysis in forest plots, including confidence intervals for individual studies and the overall effect. We will test and adjust for publication bias using a range of approaches suggested in Rothstein, Sutton, and Borenstein (2005); depending on the data collected, this may include funnel plots and trim-and-fill analysis. We will use Comprehensive Meta-Analysis 2.0 software (Biostat, 2005) for calculations and production of figures.

### **Moderators of effect size**

We will code a range of study-level moderators that we expect would have an impact on the effect size. Specifically, we will code for: intervention strategy, population under study (offenders/general population; gender specific), theoretical background to the intervention,

contextual variables, geographic region, implementation success, and study design characteristics. We will also code indicators of study quality. If there is sufficient information available, we will test the effect of key moderators on the outcomes, using analogue to the ANOVA for categorical predictors and meta-regression for continuous predictors. We anticipate that we will perform moderator analysis on study quality, publication status, year, study design, geographic region, geographic level of analysis, single versus multiagency strategy, and the type of community-oriented policing strategy used.

### **Treatment of qualitative research**

If the search does not result in data suitable for quantitative synthesis, we will revisit the coding stage and code documents which report on qualitative evaluations of community-oriented policing interventions, and then conduct a narrative review of these studies.

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## **SOURCES OF SUPPORT**

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### **Internal funding**

In-kind support from The University of Queensland Institute for Social Science Research (ISSR) and Queensland University of Technology, Mathematical Sciences.

### **External funding**

From the Global Development Network via 3ie's Open Window Round 3 (SR3/1277) and the Australian Research Council (ARC) Centre of Excellence in Policing and Security (CEPS).

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## **DECLARATIONS OF INTEREST**

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None of the authors have any known conflicts of interest.

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## **TIMEFRAME FOR REVIEW**

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Search for published and unpublished studies	January 2013
Relevance assessments and coding	January–February 2013
Statistical analysis	February 2013
Initial results available for presentation	February 2013
Preparation of report	February 2013
Submission of completed report	February 2013

This review is conducted as part of a larger project that includes a systematic review of policing interventions targeting violent crime in developing countries, funded from the Global Development Network via 3ie's Open Window Round 3 (SR3/1277). Consequently, many of the tasks listed have been completed. However, we will revise all work in accordance with feedback received on this protocol.

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## **PLANS FOR UPDATING THE REVIEW**

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The authors plan to update the review every five years.

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## REFERENCES

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- Akpokodje, J., Bowles, R., & Tigere, E. (2002). *Evidence-based approaches to crime prevention in developing countries – A scoping review of the literature*. York, UK: Centre for Criminal Justice Economics and Psychology, University of York.
- Alves, M. C. & Arias, E. D. (2012). Understanding the Fica Vivo programme: two-tiered community policing in Belo Horizonte, Brazil. *Policing and Society: An International Journal of Research and Policy*, 22(1), 101–113.
- Bayley, D. H. (1994). International differences in community policing. In D. P. Rosenbaum (Ed.), *The challenge of community policing: Testing the promises* (pp. 278–281). Thousand Oaks, CA: Sage Publications.
- Bayley, D. H., & Nixon, C. (2010). The changing environment for policing, 1985–2008. *New Perspectives in Policing* (September 2010). Program in Criminal Justice Policy and Management, Harvard Kennedy School & the National Institute of Justice. Retrieved from [http://www.hks.harvard.edu/var/ezp\\_site/storage/fckeditor/file/pdfs/centers-programs/programs/criminal-justice/NPIP-The-Changing-Environment-for-Policing-1985-2008.pdf](http://www.hks.harvard.edu/var/ezp_site/storage/fckeditor/file/pdfs/centers-programs/programs/criminal-justice/NPIP-The-Changing-Environment-for-Policing-1985-2008.pdf)
- Bennett, T., Farrington, D., & Holloway, K., (2009). The effectiveness of neighborhood watch. *The Campbell Collaboration Library of Systematic Reviews* (18). <http://campbellcollaboration.org/lib/project/50/>
- Borenstein, M. (2009). Effect sizes for continuous data. In *The handbook of research synthesis*. 2<sup>nd</sup> edition. Cooper, H., Hedges, L.V., & Valentine, J.C. (Eds) (pp. 221–235). Russell Sage Foundation: New York, New York.
- Bowers, K., Johnson, S., Guerette, R.T., Summers, L., and Poynton, S. (2011). Spatial displacement and diffusion of benefits among geographically focused policing initiatives. *Campbell Systematic Reviews* 2011.3. DOI: 10.4073/csr.20011.3
- Braga, A. A., Weisburd, D. L. , Waring, E. J., Mazerolle, L. G., Spelman, W., & Gajewski, F. (1999). Problem-oriented policing in violent crime places: A randomized controlled experiment. *Criminology*, 37(3), 541–580.
- Brogden, M. (2002). Implanting community policing in South Africa: A failure of history, of context, and of theory. *Liverpool Law Review*, 24(3), 157–179.
- Eijkman, Q. (2006). To be held accountable: Police accountability in Costa Rica. *Police Practice and Research*, 7(5), 411–430.
- Farrington, D. P. and B. C. Welsh (2002). Improved street lighting and crime prevention. *Justice Quarterly*. 19: 313-342.
- Frühling, H. (2007). The impact of international models of policing in Latin America: The case of community policing. *Police Practice and Research*, 8(2), 125–144.

- Frühling, H. (2011). A realistic look at Latin American community policing programmes. *Policing and Society*, 22(1), 76–88.
- Goldsmith, A., & Dinnen, S. (2007). Transnational police building: critical lessons from Timor-Leste and Solomon Islands. *Third World Quarterly*, 28(6), 1091–1109.
- Goldsmith, A., & Harris, V. (2010). Police/Military cooperation in foreign interventions: Timor-Leste and the Solomon Islands. In F. Lemieux (Ed.), *International police cooperation: Emerging issues, theory and practice* (pp. 221–237). Devon, UK: Willan Publishing.
- Goldstein, H. (2003). On further developing problem-oriented policing: The most critical need, the major impediments and a proposal. In J. Knutsson (Ed.), *Crime Prevention Studies: Vol 15. Problem-oriented policing: From innovation to mainstream* (pp. 13–48). Monsey, NY: Criminal Justice Press.
- Hofman, K., Primack, A., Keusch, G., & Hrynkow, S. (2005). Addressing the growing burden of trauma and injury in low- and middle-income countries. *American Journal of Public Health*, 95(1), 13–17.
- Homel, R. (1993). Random breath testing in Australia: Getting it to work according to specifications. *Addiction*, 88(Supplement), 27S–33S.
- Katz, C., Webb, V., & Schaefer, D. (2001). An assessment of the impact of quality-of-life policing on crime and disorder. *Justice Quarterly*, 18(4), 825–876.
- Kelling, G., & Moore, M. (1988). From political to reform to community: The evolving strategy of police. In J. R. Greene & S. Mastrofski (Eds.), *Community policing: Rhetoric or reality* (pp. 3–25). New York: Praeger.
- Kennedy, D. M., Piehl, A. M., & Braga, A. A. (1996). Youth violence in Boston: Gun markets, serious youth offenders, and a use-reduction strategy. *Law and Contemporary Problems*, 59(1), 147–196.
- Kleiman, M. (1988). Crackdowns: The effects of intensive enforcement on retail heroin dealing. In M. Chaiken (Ed.), *Street-level drug enforcement: Examining the issues* (pp. 3–34). Washington, DC: National Institute of Justice, US Department of Justice. Retrieved from [http://www.popcenter.org/problems/burglary\\_home/PDFs/Kleiman\\_1988.pdf](http://www.popcenter.org/problems/burglary_home/PDFs/Kleiman_1988.pdf)
- Koper, C. S. (1995). Just enough police presence: Reducing crime and disorderly behavior by optimizing patrol time in crime hot spots. *Justice Quarterly*, 12(4), 649–672.
- Laycock, G. (1991). Operation Identification, or the power of publicity? *Security Journal*, 2(2), 67–72.
- Liebling, H., & Kiziri-Mayengo, R. (2002). The psychological effects of gender-based violence following armed conflict in Luwero district, Uganda. *Feminism & Psychology*, 12(4), 553–560.



- Mazerolle, L., & Ransley, J. (2005). *Third party policing*. Cambridge Studies in Criminology Series. Cambridge, UK: Cambridge University Press.
- Morrison, A., Ellsberg, M., & Bott, S. (2007). Addressing gender-based violence: A critical review of interventions. *The World Bank Observer*, 22(1), 25–51.
- Rothstein, H. R., Sutton, A. J., & Borenstein, M. (2005). *Publication bias in meta-analysis: Prevention, assessment, and adjustments*. West Sussex, United Kingdom: Wiley.
- Ruprah, I. J. (2008). *An impact evaluation of a neighbourhood crime prevention program: Does Safer Commune make Chileans safer?* Inter-American Development Bank Office of Evaluation and Oversight working paper OVE/WP-09/08.
- Seedat, M., Van Niekerk, A., Jewkes, R., Suffla, S., & Ratele, K. (2009). Violence and injuries in South Africa: Prioritising an agenda for prevention. *Lancet*, 374, 1011–1022.
- Sherman, L. W., & Berk, R. A. (1984). The specific deterrent effects of arrest for domestic assault. *American Sociological Review*, 49(2), 261–272.
- Sherman, L. W., & Eck, J. E. (2002). Policing for crime prevention. In L. W. Sherman, D. P. Farrington, B. C. Welsh, & D. L. MacKenzie (Eds.), *Evidence-based crime prevention* (pp. 295–329). London: Routledge.
- Sherman, L. W., & Rogan, D. P. (1995). Deterrent effects of police raids on crack houses: A randomized, controlled experiment. *Justice Quarterly* 12(4), 755–781.
- Sherman, L. W., & Weisburd, D. (1995). General deterrent effects of police patrol in crime “hot spots”: A randomized, controlled trial. *Justice Quarterly*, 12(4), 625–648.
- Schols, J. (2011). *Agents of change: A case study of community policing in La Antigua Guatemala* (Master’s thesis, University of Utrecht). Retrieved from <http://igitur-archive.library.uu.nl/student-theses/2011-1130-200340/Schols%2c%20J.pdf>
- Skogan, W. (1990). *Disorder and decline: Crime and the spiral decay in American neighborhoods*. New York: Free Press.
- Skogan, W., & Hartnett, S. (1997). *Community policing, Chicago style*. New York: Oxford University Press.
- Stone, C., & Travis, J. (2011). Toward a new professionalism in policing. *New Perspectives in Policing* (March 2011). Program in Criminal Justice Policy and Management, Harvard Kennedy School & the National Institute of Justice. Retrieved from [http://www.hks.harvard.edu/var/ezp\\_site/storage/fckeditor/file/pdfs/centers-programs/programs/criminal-justice/ExecSessionPolicing/NPIP-TowardsaNewProfessionalisminPolicing-03-11.pdf](http://www.hks.harvard.edu/var/ezp_site/storage/fckeditor/file/pdfs/centers-programs/programs/criminal-justice/ExecSessionPolicing/NPIP-TowardsaNewProfessionalisminPolicing-03-11.pdf)
- Taye, K. A. (2011). *Assessing factors that affect the implementation of community policing in Awassa, Federal Democratic Republic of Ethiopia* (Master’s thesis, University of South Africa). Retrieved from

[http://uir.unisa.ac.za/bitstream/handle/10500/4039/dissertation\\_atte\\_t.pdf?sequence=1](http://uir.unisa.ac.za/bitstream/handle/10500/4039/dissertation_atte_t.pdf?sequence=1)

- Trojanowicz, R. (1986). Evaluating a neighborhood foot patrol program: The Flint, Michigan project. In D. Rosenbaum (Ed.), *Community crime prevention: Does it work?* (pp. 157–178). Beverly Hills, CA: Sage Publications.
- United Nations Office on Drugs and Crime (2005). *Crime and development in Africa*. Vienna: Author.
- United Nations Office on Drugs and Crime. (2007). *Crime and development in Central America: Caught in the crossfire*. Vienna: Author.
- United Nations Office on Drugs and Crime and Latin America and the Caribbean Region of the World Bank. (2007). *Crime, violence, and development: Trends, costs, and policy options in the Caribbean*. Report No. 37820. Retrieved from [https://www.unodc.org/pdf/research/Cr\\_and\\_Vio\\_Car\\_E.pdf](https://www.unodc.org/pdf/research/Cr_and_Vio_Car_E.pdf)
- Weisburd, D., & Braga, A. (2006). Introduction: Understanding police innovation. In D. Weisburd & A. Braga (Eds.), *Police innovation: Contrasting perspectives* (pp. 225–244). Cambridge: Cambridge University Press.
- Weisburd, D., Bennett, T., Gill, C. E. , & Tekep, C. W. (2012). Title registration for a review proposal: Community-oriented policing to reduce crime, disorder and fear and increase legitimacy and citizen satisfaction in neighborhoods. *Campbell Collaboration Library of Systematic Reviews*. Retrieved from <http://campbellcollaboration.org/lib/download/1879/>
- Weisburd, D., & Eck, J. E. (2004). What can police do to reduce crime, disorder, and fear? *Annals of the American Academy of Political and Social Science*, 593(1), 42–65.
- Weisburd, D., & Green, L. (1995). Policing drug hotspots: Findings from The Jersey City DMA Experiment. *Justice Quarterly*, 12(4), 711–735.
- Weiss, A., & Freels, S. (1996). The effects of aggressive policing: The Dayton traffic enforcement experiment. *American Journal of Police*, 15(3), 45–64.
- Willman, A., & Makisaka, M. (2010). Interpersonal violence prevention: A review of the evidence and emerging lessons. *World development report 2011 Background Paper*. Conflict, Crime and Violence Team, World Bank.
- World Health Organization (2002a). *The world health report 2002: Reducing risks, promoting healthy life*. Geneva: Author. Retrieved from <http://www.who.int/whr/2002/en>
- World Health Organization (2002b). *World report on violence and health*. Geneva: Author.
- Zimmer, L. (1990). Proactive policing against street-level drug trafficking. *American Journal of Police*, 9(1), 43.

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## APPENDIX A: CODING GUIDE

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*The codesheets are implemented in Microsoft Access. The following protocol and guide will be given to every person coding:*

Use this document together with the review protocol to help you fill out the coding sheet.

### Before coding

1. Open the review database and open the Coding form
2. The form is divided into two main areas – the top section relates to the document as a whole and the sub-form relates to each individual study in the document.
3. Note that documents can report on multiple studies and that studies can report on multiple outcomes.
4. The form should either display an icon in the PDF button on the top left, or indicate that the document needs to be ordered. For documents with a PDF icon, double-click on the PDF icon at the top left and select an attachment to open. For documents that were ordered, check if the document has arrived and if so, use the physical copy.
5. The first 6 fields of the form are not editable, but provide information on the document to be coded.
6. Coding begins at “Coder”
7. Start coding the document using the guidelines below.
8. Note: if you cut and paste information from the source document, please paste the text in between “ ” so that we do not accidentally plagiarise a document when summarising.
9. Start coding the document using the guidelines below.

### Document ID

These numbers are unique identifiers for each document assigned at the end of the systematic search phase of the review.

### Full reference

The document’s full reference in APA format

### Coder

Select your name from the drop down list

### Date coded

Click in this field for today’s date

### Document Eligibility

These questions determine whether the document is eligible for inclusion in the systematic review. The answers to these questions combine to automatically determine eligibility for inclusion.

## **Unique**

This question is a filter to prevent coding of multiple documents that are reporting on the same intervention. Put yes or no. If no, put the Study ID of the document reporting on the same intervention as this one. Please note that it does not count as the same intervention if it is implemented in a different place.

## **After 1975**

Put yes or no. Documents published before 1975 are not eligible for this review. Documents published after 1975 but reporting on an intervention that took place before 1975 are also not eligible; however, don't feel the need to go looking for this information yet if it's not immediately apparent.

## **Developing country**

Put yes or no. The intervention has to take place in a developing country to be eligible. Developing countries for the purposes of coding include any countries except for the United States, Canada, the United Kingdom, Australia, New Zealand, Japan, and Western Europe (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Monaco, the Netherlands, Norway, Spain, Switzerland, and Vatican City). Do not confuse with the country where the study was published.

## **Intervention**

Put yes or no. Is this document reporting on an intervention? An intervention is some kind of strategy, funding change, organisational change, campaign, training, or directive that is different from business as usual. If the document is merely describing the way things are, and does not report on any specific action that is different, it is not eligible. If the document is talking about change in general terms, or suggesting an intervention, but is not actually reporting on a specific intervention that has actually taken place, it is not eligible.

## **Aimed at violent crime**

Put yes or no. There are two ways of determining whether the intervention is aimed at preventing/reducing violent crime. First, check whether the outcomes of the intervention include some measure of violent crime (including violent crime broadly, homicide, assault, rape, robbery, domestic violence, or other forms of interpersonal violence). Note that self-directed violence (self harm, suicide) and collective violence (protesting, looting, war, state violence, terrorism) do not count under our definition of violent crime. The violent act does not have to be illegal in the study country to be included in our definition (e.g. if the intervention aims to prevent rape but rape is not illegal in the country, it is still eligible for inclusion). If the document reports a violent crime outcome, the answer to this question is yes. If the document does not report a violent crime outcome, look at the introductory text of the document to see whether the authors say the intervention is aimed at violent crime. If they explicitly say the intervention is intended to impact some kind of violent crime, put yes. If they don't explicitly say that one of the aims is to impact violent crime, and they don't measure violent crime as an outcome, put no – the study is not eligible for inclusion in this review.

## **Policing intervention**

Put yes or no. Did the intervention involve public police, alone or in partnership with another party?

### **Community-oriented policing**

Put yes or no. To be eligible, the intervention has to be implemented by public police and include some mechanism of community consultation: regular meetings, citizen surveys, the appointment of a community liaison officer, etc.

### **Impact evaluation**

Tick the box for yes. There must be a quantitative evaluation of the impact of the intervention. This can include impact on interpersonal violent crime in aggregate, or a particular subset of interpersonal violent crime, or other factors included in the outcomes section. Do not include documents that say they are evaluations but are actually process evaluations; that is, they report on how successful the implementation of the intervention was, but do not actually provide any comparative outcome data. Impact evaluations report statistics (eg. p values, r, d, g, t, F, Chi2) or report data summarised for the control and intervention groups, such as frequency tables, before and after means, and contingency tables.

### **Study info overview**

These questions provide information about the document that will help us to determine whether the features of the study impact the outcomes of interventions. Only eligible impact evaluations will be coded further.

#### **Study name**

If the document contains an eligible study, enter a “Study name”. This will automatically generate a new record for the study. If the study is not named in the document, invent an appropriate name eg “Author year study 1”.

#### **Coded by**

Select your name from the drop down list

#### **Date coded**

Click in this field for today’s date

### **Study info tab**

#### **Country of intervention**

Write the name of the country in which the intervention was implemented (note: do not confuse with the country in which the study was published; they may be different, e.g. a DFID study implemented in Congo but published in the United Kingdom).

#### **Language**

Write the name of the language of publication when we first retrieved it (i.e. some documents will have been sent to the translators – if you are reading the English translation but the original document was in Spanish, put Spanish).

#### **Research timeframe**

Write the years in which the study was running. If in doubt, the document should include information on what year the intervention was first implemented; write that in.

## **Intervention info tab**

These questions provide information about the intervention that will help us determine whether the features of the interventions impact their outcomes.

### **Intervention name**

Many intervention strategies have a name, e.g. “Project Peace”. Write in the name of the intervention. If you can’t find one, write “none”.

### **Intervention strategy**

Most interventions fall under a broad definition of some kind of strategy, e.g. community-oriented policing, alternative dispute resolution, prison reform, diversion, training, citizen education, organisational restructuring, intelligence led policing, etc. Try to identify a broad definition for this intervention. If the authors have identified what type of strategy it is, use their terms.

### **Full description**

Write a full description of the intervention strategy (but limit to two or three sentences). Where possible, use the exact words used to describe the intervention in the text.

### **Theoretical background**

If the authors have identified a particular theoretical background to the intervention (e.g. zero tolerance, restorative justice, procedural justice, empowerment, etc.) write it here. If they haven’t, write “no information”.

### **Comparison group**

Describe what happened to the group / area that did not receive the intervention (the “business as usual” condition). If there is no information in the document about what usually happens in the absence of the intervention, write “no information”. Note: if the comparison group is not “business as usual”, but is an alternative intervention, the document is not eligible for review. Write “alternative intervention”, and stop coding.

### **Police led**

Write yes or no. This question asks whether the police actors were leading the intervention. If the funding is provided by, or primarily to, public police; or if the actions are primarily police orientated; or if you have some other reason to think the police actors were leading the intervention (e.g. the authors said so); put yes. If the policing component was a small part of the intervention (e.g. it was a health intervention that included some training of police officers) or there were no clear leaders (e.g. a multi sector intervention where no sector was clearly leading the intervention), put no.

### **Other components**

Write what other actors were involved in the intervention. Use broad terms, e.g. health system, education system, government, NGO, volunteers, etc.

### **Funded by**

Write what agency is funding the intervention. Use broad terms, e.g. federal government, local government, NGO, foreign government aid program (Foreign government here refers to the government of a country other than the country in which the intervention was actually

implemented. For example, the United Kingdom’s Department for International Development funding police training in Nigeria would count as a foreign government aid program).

### **Evaluated by**

Write what agency was responsible for evaluating the program. Use broad terms, e.g. local university, foreign university, local government, foreign government aid program, NGO.

### **Unit of treatment assignment**

Write individual, geographic area, group, or other. This question is asking at what level the treatment was assigned; e.g. if some individuals received the intervention but others didn’t, write individual; if some areas received the intervention but others didn’t, write geographic area. Write the specific geographic area, e.g. town, city, beat, neighbourhood, etc.

### **Unit of analysis**

Write individual, geographic area, group, or other. This question is asking at what level the data were collected; were data collected from individuals, or do we have e.g. crime rates in an area?

## **Intervention context tab**

These questions help us to determine whether the context in which the intervention is implemented has an effect on its success.

### **Conflict**

Put yes or no. Do the authors explicitly mention that the intervention takes place in the context of current conflict? If conflict is mentioned as part of the country’s recent history, but not talked about in the immediate context of the intervention, put no. If the authors do not explicitly mention anything about conflict, put no. If the authors explicitly mention that the intervention is taking place in the midst of a war, genocide, rebellion, etc., put yes.

### **Political activity**

Put yes or no. Do the authors explicitly mention that the intervention takes place in the context of political change, e.g. transition to democracy, elections, governmental change, etc.? Again, it must be explicitly stated by the authors, and in the immediate context of the intervention (not a historical context).

### **Other contextual information**

Write in anything the authors have mentioned about the intervention context that may affect the way the intervention was implemented, or may make it difficult to compare the outcomes of this intervention to interventions in other contexts (e.g. during reconstruction after a natural disaster). If the authors haven’t mentioned anything, put “none”.

## **Implementation success tab**

These questions are intended to capture information about whether the intervention was implemented as intended.

### **Implemented as planned**

Put yes or no. Did the authors mention any problems with the implementation of the intervention, e.g. funding didn't reach the right people, activities were not carried out, changes in project staff caused delays, etc.; if so, put yes.

### **Agency partnerships**

Put yes if the authors say that the agencies who were supposed to contribute did contribute everything they had agreed to ; put no if the authors mention any problems with the partnerships; put unclear if nothing is mentioned ; put not applicable if the intervention was implemented by only one agency.

### **Issues in implementation**

Write in what, if any, problems the authors identified in implementing the intervention. If none, put "none".

### **Ethical issues**

Write yes or no. This question is asking whether there are any ethical issues with the intervention itself. You may have to apply some judgment here. For example, if the intervention aims to control crime by severely restricting individual freedoms, if it seems to impinge on human rights, etc., then there may be ethical issues in implementing the intervention in other places. An example would be an intervention that locks up everyone under 15 to stop juvenile crime. Slight incursions on individual freedoms do not count as ethical issues because most interventions include some degree of restriction of freedoms. For example, a juvenile curfew doesn't count as ethically problematic under this definition. Yes means there are problems with the ethics of this intervention.

### **Quality tab**

These questions are asking about the quality of the evaluation studies.

### **Monitoring of treatment delivery**

Put yes or no. Does the paper identify any strategies for monitoring how the intervention was delivered (making sure that all participants who were supposed to receive the intervention received the intervention)? If the paper includes some figures on how the intervention money was spent, or on the activities undertaken by people working in the program, this counts as monitoring of treatment delivery and you should put yes.

### **Treatment integrity**

Put yes or no. Did the evaluators check that the people who were not supposed to be receiving the intervention did not receive the intervention? If there was potential for treatment contamination (e.g. the intervention was delivered in a geographic area but people from the control areas could have travelled into the area to access it) and the authors don't mention any strategies for trying to control this potential, put no.

### **Intent to treat analysis**

Put yes or no. In the analysis, were the groups separated by how they were assigned (intent to treat – put yes) or whether or not they actually received the treatment (put no)?



### **Differential attrition**

Put yes or no. Attrition is the loss of participants from a study. Differential attrition is where one group (treatment or control) loses substantially more participants than the other group; so much so that there is a possibility the attrition could be affecting the results. If there is substantial difference in attrition, or if the authors mention that participants dropped out for particular reasons in one group but not the other, put yes.

### **Sample bias**

Put yes or no. Was the sample selected randomly? If so, put no. Was the sample selected on the basis of the dependent variable (e.g. high crime areas selected for a crime reduction intervention)? If so, put yes. If the sample was selected by convenience (e.g. because the area had the resources to fund the intervention), put “unclear”.

### **Randomised**

Put yes or no. Were participants (or areas) allocated to treatment and control at random?

### **Type of comparison group**

Describe the comparison group, e.g. nonparticipants in the program, randomly selected controls, matched controls, pre-test.

### **Research standards**

Put yes or write in the problem. This is a catch-all question for any serious failings in intervention or evaluation design that are not captured by the other quality questions. If there are no obvious serious issues with the study, put yes. If the study is clearly affected by some kind of bias not captured in the other questions, write what the bias is. Examples are: pre post test without a comparison group (stop coding if this is the case), statistical tests that don't match the data collected, outcomes that are measured but not reported, participants are systematically different in treatment and control groups, other events systematically co-occurring with the treatment that could have affected the outcome, outcomes are measured differently in treatment and control groups, etc.

### **Sample tab**

These questions cover characteristics of the sample under study that may differ between studies.

#### **Age**

Put the general age range of the people under study (that is, wherever the data were collected from): adult, elderly, children, or all. If the intervention is delivered at an aggregate level (e.g. towns) and data collected at this aggregate level, just put all.

#### **Gender**

Put males, females, or all.

#### **SES**

SES stands for socio-economic status. The intervention may have been targeted at “low SES” or “low income” participants. Put low, high, or all.

## **Other**

Put any other distinctive characteristics of the sample, e.g. offenders, victims, police officers, etc. Don't worry about general sample descriptors, only put in things that obviously make this sample different from the general population. If none, put "none".

## **Outcomes tab**

This section is about the particular outcomes reported in the study. Only report outcomes that are evaluated, i.e. for which there is data for both treatment and comparison groups – don't include process-related outcomes for which there is no comparative data. Fill out this section for every outcome, including non violent crime outcomes.

### **Outcome**

Put the general outcome category, e.g. violent crime, aggregate crime, disorder, satisfaction, etc.

### **Conceptual definition**

Write in the definition used by the authors. If the authors don't provide a definition, write in whatever they've called the outcome.

### **Operational definition**

Write in exactly how the outcome was measured; is it a count, sum, average, etc.; if it's officially recorded information e.g. crime, what was the source, and in what timeframe; if it's a survey measure, write in the exact wording of the items; and any other information on the measurement.

### **Data source**

Write official data, self-report, observations, etc.: where did the data come from?

### **Authors' conclusions**

Write in what the authors concluded about the impact of the intervention on this outcome. Use their exact words where possible. Fill out this section for every outcome, including non-violent crime outcomes.

### **Was a standardised effect size reported?**

Select yes or no. A standardised effect size is a value which is comparable across studies and not a function of the sample size (unlike, for example, a  $t$ ,  $\text{Chi}^2$  or  $F$  statistic). Standardised effect sizes include: standardised mean difference ( $g$  or  $d$ ), odds ratio (OR), risk ratio (RR), correlation coefficient ( $r$ ).

### **Effect size page number**

Enter the page number on which the effect size is found. Please note: use the page number of the original document, not the page number of the pdf.

### **Effect size measure**

Write in the type of effect size calculated eg. standardised mean difference ( $g$  or  $d$ ), odds ratio (OR), risk ratio (RR), correlation coefficient ( $r$ ).

**Effect size**

Write in the value of the standardised effect size reported

**Are data available to calculate an effect size?**

Yes or no. An effect size can be calculated from mean and standard deviations, *t* or *F* value,  $\text{Chi}^2$ , frequencies or proportions, pre and post etc. If no, we will need to contact the author/s to request missing information.

**Data to calculate effect size**

Write in all of the statistics reported for this outcome. If the effect size estimates for this outcome are particularly complex (eg a regression table), place a note in this field to direct us to the correct page of the document (eg "See regression table 2 on page 37"). Please note: use the page number of the original document, not the page number of the pdf. This data will be entered into Comprehensive Meta Analysis to calculate a standardised effect size.

**Outcome coded by**

Select your name from the drop down list

**Date outcome coded**

Click in this field for today's date

**Another outcome?**

If the study contains another outcome, click the "Add another outcome" button at the bottom of the tab.

If there are no further outcomes to code, are there any more studies in the document? If yes, click the "Add another study" button at the bottom of the form. If no, click the right arrow button at the top of the form to bring up the next document.