Writing Narratives for the Crime Reduction Toolkit

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Introduction

This document provides step-by-step guidance, agreed by the What Works Centre for Crime Reduction (WWCCR), on the style, format and content required for the narratives on the [Crime Reduction Toolkit](#). These narratives are based on the EMMIE framework (Johnson et al., 2015) which, amongst other things, provides a method for critically appraising systematic reviews and meta-analyses in crime reduction.

The narratives summarize the evidence reported by systematic reviews, structured according to a standard format that follows the EMMIE framework (See [Appendix 3](#) for the narrative template). This document guides the reader through each of the sections that constitute this format, providing detailed instructions for the style and content that should be reported. The headings for the narrative cover: a section introducing the intervention examined by the review ('What is the focus of the review?')'; individual sections outlining the findings for each of the EMMIE dimensions; general considerations identified by the EMMIE coders; and a summary of the whole narrative.

Examples from existing narratives are provided for each section in boxes throughout the document.

Terminology/wording

Please adhere to the following rules about terminology when writing the narrative:

- When the narrative is based on one review, refer to this as Review (with a capital R). When using multiple reviews, refer to as Review 1 or Review 2 etc. so it is clear which review is being referred to.
- When referring to the number of included studies, use text rather than numbers when referring to fewer than 10 studies.
- Write in the past tense. For example, 'The Review found that' rather than 'The Review finds'.
- Wherever possible use language suitable for a UK audience. This may mean rephrasing the language used in the original review (e.g. 'reoffending' rather than 'recidivism' and 'young people/youths' rather than 'juveniles').
- When referring to primary studies included in a review (also known as 'included studies'), refer to 'primary studies'.
- When reporting findings, refer to 'statistically significant' findings rather than just 'significant' to avoid confusion.

Intervention name

Provide an intervention name: Be specific, for example, *"Closed Circuit Television surveillance cameras (CCTV)"* rather than "CCTV". Try to use the phrasing/ terminology that the original review has used but also be aware that some phrasing may need to be altered for a UK audience. For example, 'Aftercare programs for juvenile offenders' became 'Aftercare programmes for young offenders'.

The wording for the intervention name will be used as the title/heading for the review on the toolkit so it needs to be succinct and simple.

What is the focus of the review?

First paragraph:
Describe the intervention in a few sentences, in particular the focus of the intervention (i.e. reducing domestic violence, reducing reoffending in general). In this section you should include the key elements of the intervention so that the reader has a clear understanding of what the intervention actually is. If appropriate, use the wording from the review. Within this description, you should aim to specify what components of the intervention are common across the studies under review (i.e. it should be clear why this is considered a 'single' intervention).

If the review focuses on a particular population, provide details in this paragraph (for example, specify the age range of 'young people').

Second paragraph:
State the number of reviews covered in the narrative and the number of studies within the review(s).

Incorporate any of the following, if they apply:
- If a meta-analysis is used in the Effect section, then specify this here. i.e. "This narrative is based on one meta-analytic review covering X studies."
- If the narrative is primarily based on one review, with further reviews only providing additional evidence for particular sections then state this here (see CCTV example below).
- If the review has a broader focus than just crime (i.e. covers other outcomes such as health), be clear what crime reduction outcomes are of interest in this narrative summary. To do so, specify the nature of the crime outcomes that will be reported in the Effect section and elsewhere (see Drug Courts example below). If the outcome includes a measurement to identify victims (e.g. such as individuals who have experienced domestic violence who are subsequently to receive an intervention) then mention this here, and reiterate in the effect section.

- Refer to the geographical setting of the included studies use the following phrasing: "X of the primary studies in the review were based on evidence from [Add Country]".

CCTV
Closed circuit television (CCTV) surveillance cameras serve many functions and are used in both public and private settings. CCTV is viewed as a technique of "formal surveillance" and as such it might enhance or take the place of security personnel. CCTV cameras can be used to aid crime prevention, the detection of offenders, and crowd control or public order scenarios. The focus of this narrative is on CCTV and the prevention of personal and property crime.

This narrative is primarily based on one systematic review covering 41 studies. A second review (covering 13 studies) provided additional evidence in relation to the mechanisms and moderator sections below.

Drug Courts
The narrative is based on one systematic review covering 60 studies, which focuses on the effect of drug courts upon rates of reoffending (including arrests, appearances in court and convictions). All the primary research was carried out in the USA.

Third paragraph:
If the narrative/ intervention directly relates to another narrative on the Crime Reduction Toolkit, include a sentence alerting the reader to the relevant narrative. For example, Cognitive Behaviour Theory should include a reference/ link to the Cognitive Behaviour Theory for Domestic Violence (and vice versa).

EFFECT

How effective is it? (**E**MMIE-Effect X X✓✓)

First paragraph:
Summarise the impact that the intervention has had on crime outcomes. The first sentence *must* be a standard sentence taken from [Table 1 in Appendix 1](#), which shows ten possible combinations of outcomes that summarise the overall impact of the intervention *across* primary studies, and any reliable patterns observed for *individual* primary studies. Follow the instructions outlined in Appendix 1 to identify the appropriate Effect code. Once you have identified the code:

1) Copy and paste the appropriate symbols and then insert these into these brackets (**E**MMIE-Effect ADD SYMBOLS) that sit beside the title of the section.
2) Use the 'Interpretation' text (from the Table) as the first sentence in the Effect section. Insert the name of the intervention in the sentence in place of 'intervention'.

If the review reports multiple crime outcomes, list these after the standard sentence taken from the Table. For example, "The specific crime outcomes covered by the review are X, Y and Z".

Second paragraph:
First, focus on and describe the findings of the synthesis/meta-analysis. Specifically this should cover which crime outcomes were estimated (including types of crime or reoffending, where appropriate) and for which population groups. Any caveats associated with the estimates should be noted here too. Examples of phrasing to use:

- The meta-analysis/ Review 1 found that [intervention] led to a reduction/ increase in [crime outcomes] in [population] compared to [comparator].

- The evidence suggests that [intervention] had no overall impact on [crime outcomes] in [population] compared to [comparator].

- The review found that [crime outcomes] were most likely to remain unchanged after the implementation of [intervention].

- For a non-significant impact: "The review found that [intervention] had no (statistically) detectable effect on [crime outcome]".

If it is possible to draw out an easy-to-understand summary of the review findings then include this here. For example "The average reoffending rate for those receiving the [intervention] was [X] compared to [X] who did not receive the [intervention]" (see Victim Offender Mediation example).

> *Victim Offender Mediation*
> *The overall evidence is taken from Review 1, which showed that those offenders who participated in VOM had a 34% lower rate of reoffending than those who did not participate.*

- When reporting that a finding is statistically significant (or not), make sure that you use the phrasing 'statistically significant' rather than just 'significant' so as to avoid confusion.
- Specify the follow up period when reporting the short or long term effects of the intervention.

Second, focus on the **statistically significant** findings of the individual studies. Provide details of the number of studies, direction of effect and outcomes measured. For example, "X primary studies found that [intervention] led to a statistically significant increase in [crime outcome], X reported a reduction in [crime outcome] and X found no evidence of effect compared to [comparator]" (See Minimum legal drinking age laws example).

> *Minimum legal drinking age laws*
> *57 studies looked at the impact on alcohol related crashes. Just over half of these (34 studies) found higher minimum legal drinking age laws were associated with reductions in alcohol-related crashes. Just over a third (21 studies) found no relationship between MLDA and alcohol-related crashes. A minority (2 studies) observed an increase in alcohol-related crashes when the MLDA was increased, although statistical significance was not reported for one of these studies.*

Third, if there are additional reviews (i.e. Review 2 and Review 3) that provide evidence for the Effect section then these should also be reported in this section (see Firearm Laws example below). These should be included even if the additional reviews (i.e. Reviews 2, 3, etc) do not materially change the results or if the quality rating is not high. The justification for this is that they corroborate the evidence presented, thus implying greater reliability, and also present the fullest picture of the evidence to the readers.

> *Firearm laws*
> *Review 1 aggregated the results of effect size estimates from XX primary studies. This analysis showed that firearms laws led to a small but statistically significant reduction in crime. Review 2 did not synthesise the results, instead reporting effect sizes from individual primary studies. These studies showed both statistically significant increases and decreases in crime, with the authors declaring no overall effect when considering all primary study evidence.*

Fourth, if the review undertook an analysis of moderating factors/ subgroup analysis relating to study design then these need to be reported here. These would have been specified in the code EFFMOD-E in the EMMIE coding

spreadsheet. Use code EFFSTAT-E to inform the statements that you make (see examples below).

> *Victim Offender Mediation*
> *After analysing the effect sizes by the quality of study methodology, they found that studies of greater methodological quality had significantly lower effect sizes than lower quality studies (27% reduction compared to 52% reduction). Equally, those studies with longer follow-up periods had significantly lower effect sizes than those with shorter follow up periods.*
>
> *Aftercare programmes for juvenile offenders*
> *Statistically significant reductions in crime were reported when higher quality study designs (e.g. RCTs) were examined in the meta-analysis, but not when lower quality study designs were examined.*

Fifth, report relevant non-crime outcome measures if deemed to be relevant to crime reduction. For example, intermediate outcome measures judged relevant to achieving the sought-after crime reduction measure (such as behavioural changes that might lead to reductions in offending).

How strong is the evidence? (EMMIE - Quality of evidence ★★★☆)

This section provides an indication of the *quality* of the evidence relating to the effects of an intervention. This is assessed on a five-point scale (based on the EMMIE coding framework) and translated into a Q score (Quality score) represented by a star rating (zero to four stars). A numerical scoring should be automatically generated by the spreadsheet and this should be translated into stars and inserted in brackets against the heading

It is important to note that the quality score (e.g. stars) rates the quality of the *review* methods used to generate and synthesise the evidence, not the quality of the evidence reported in the primary studies. This means that a review scoring three or four stars may still express concerns about the quality of the evidence of the individual studies under review. It is also the case that a well-conducted review that *doesn't* use meta-analysis can only score a maximum of three stars (and more commonly two stars). Therefore reviews of two stars are not necessarily of poor quality.

In exceptional circumstances - for example, when it is difficult to determine the quality of the review evidence on intervention effects – the review author/s may be contacted as part of the EMMIE coding process. This will only be done to clarify methodological points, and the review author/s will not be permitted to comment on the interpretation of the results or the later dimensions of EMMIE. In this scenario it must be clearly specified in the general considerations section that the review author/s contributed additional information.

If the narrative covers more than one systematic review, then the Q scores may vary. Each review that has contributed to the Effect section also needs to have a Q score reported on the narrative. In such cases the scores for each review should be shown separately as, for example, in the case of the review of alcohol ignition interlocks, which covered three separate reviews and was reported as:

How strong is the evidence? (**E**MMIE - Quality of evidence: Review 1: ★★★☆, Review 2: ★☆☆☆, Review 3: ★☆☆☆)

Note that when synthesising evidence from multiple reviews, Review 1 should be the review with the highest Effect-Q score (see UPDATING AN EXISTING NARRATIVE/ USING MULTIPLE REVIEWS FOR A NARRATIVE).

First paragraph:
The first sentence is standard, reflecting the number of stars for the relevant review. These are set out in the Table in Appendix 2.

Second paragraph:
The quality of the review is then elaborated upon. Specify which elements of the review were sufficiently considered/executed well and which were not. This narrative summary should be based on the Effect-Q codes. The suggested phrasing to use is: "The evidence is taken from a systematic review covering X studies which demonstrated a high quality design in terms of [add elements]. However, the review did not sufficiently consider [add elements]." These elements can be taken from the Effect Quality section of the EMMIE coding tool and, where possible, should be stated as simply as possible for a lay audience. Examples of phrasing for different scores are outlined below.

One star:

> *Psychological treatment of adults convicted of sex offences against children*
>
> *The evidence reported here is taken from a systematic review covering 14 studies, which demonstrated high quality in terms of having a transparent and well-designed search strategy, and featuring valid statistical analysis. The Review did not sufficiently assess the risk of bias in the analysis, consider the validity of the way outcomes were measured and/or combined, separate analysis for distinct evaluation research designs or quantify an overall effect for unanticipated outcomes such as displacement caused by the intervention or conduct.*

Two stars:

> *Early childhood visits*
>
> *Review 1 had a well-designed search strategy and statistically analysed differences in the effect size between different study designs. However, the review did not take into account potential issues with publication bias, statistical dependency or weighting by size of the study sample.*

Three stars:

> *Aftercare programmes for young offenders*
>
> *This evidence is taken from a meta-analytic review covering 30 studies, which demonstrated a high-quality design in terms of having a transparent and well-designed search strategy, featured a valid statistical analysis, sufficiently assessed the risks associated with publication bias, and conducted analysis to assess the effect of distinct evaluation research designs. However, the review did not sufficiently consider the influence of statistical outliers, and did not quantify an overall effect for any unanticipated outcomes caused by the intervention.*

Four stars:

> *Alley Gating*
>
> *The review considers many elements of validity, conducting relevant statistical analyses and using multiple coders to ensure the accuracy of information collected. It considered the possibility of publication bias, as well as ensuring that only studies of comparable quality were pooled to create an overall effect size. The authors also conducted analyses of possible displacement and diffusion of benefits following the intervention.*

Third paragraph: Describe the quality of the primary studies as described by the review authors. Use code Otherbias-E.

If there are multiple reviews contributing to the Effect section of the narrative, then the quality of these reviews should also be summarised, but in less detail.

MECHANISM

How does it work? (**EM**MIE-Quality of evidence ★★★☆)
This section should summarise what the review(s) say(s) about how an intervention is assumed to bring about the desired effects. A numerical scoring should be automatically generated by the spreadsheet and this should be translated into stars and inserted in brackets against the heading. If there are multiple reviews, the review with the largest Q-score should be discussed first (see UPDATING AN EXISTING NARRATIVE/ USING MULTIPLE REVIEWS FOR A NARRATIVE).

In a similar way to that discussed in the Effect section, evidence under each of the remaining elements (MMIE) might come from more than one review. Again, the practice here is to list the Q scores for each of the reviews that contribute information to the section separately. Only report the quality (star rating) for those reviews that contribute. For example, if Review 1 and 3 contributed to the Mechanism section but Review 2 did not:

How does it work? (**EM**MIE-Quality of evidence: Review 1 ★★★☆,
Review 3: ★★★☆)

First paragraph: Provide a narrative summary of the potential mechanisms that explain how the intervention is expected to produce its effects. These should be identified in Mechstat-E. Elaborate on the following:

- No stars: If the review does not include reference to mechanisms then use the following phrasing: "The review does not explain or test the mechanisms through which [intervention] might reduce crime".

- One star: General statement of assumed theory. Provide a narrative summary of the assumed theory. Suggested phrasing "[intervention] is assumed to reduce crime by…"

- Two or more stars: "The review suggested a number of mechanisms by which [intervention] might have an effect on crime. Review 1 [specify mechanism]…". When there are multiple mechanisms, use bullet points to specify what these are.

Second paragraph, make it clear whether the review tested or analysed the mechanisms.

If the Review did test the mechanisms. Suggested phrasing:
- "The Review authors used data on [X] to suggest that this mechanism was plausible."

- "The Review provided a robust analysis of whether the mechanisms are operating as expected."

If the review did not test the mechanisms. Suggested phrasing:
- "However, information was not available from the primary studies to test whether these mechanisms were responsible for the outcome patterns observed."

- "However, this assumption was not empirically tested, as the original studies did not provide the necessary information to do so."

- "However, this is not considered to be a full test of the theory of change."

For CCTV:
In both Reviews 1 and 2 the authors note that CCTV might reduce crime by: a) deterring criminals by increasing their perception of the risk of getting caught; b) increasing the actual risk of getting caught; c) encouraging the public use of an area thus affecting the criminals' perceptions of risk (by increasing informal surveillance by the public); d) encouraging potential victims to take additional precautions; e) signalling improvements in the area to the public which encourages community pride; f) supporting the effective deployment of security staff to incidents more effectively.

Review 2 notes that possible increases in crime could occur if: a) the police became overly reliant on the cameras and reduced their own vigilance, or b) due to the presence of cameras fewer people used the area, which reduced levels of natural surveillance.

However, none of these potential mechanisms are empirically tested and the authors note that this should be done. Review 2 reported that CCTV did not encourage or discourage use of the area, which suggested no change in natural surveillance.

MODERATORS

In which contexts does it work best? (EMMIE-Quality of evidence★★★)

If the review(s) report different results for specific subgroups of recipients, or different conditions, summarise these findings here. Again, report the number of studies on which these estimates are based and provide primary quality (star) ratings for each review that contributes to this section (as noted above re: mechanisms). A numerical scoring should be automatically generated by the spreadsheet for each review and this should be translated into stars and inserted in brackets against the heading.

Moderators refer to pre-existing conditions that support the activation of the causal mechanisms through which an intervention is expected to produce the desired effect. Note that for Moderators, any subgroup analyses reported in this section should only refer to the context of implementation and not research design. The latter should be discussed in the Effect section. Examples of context include type of place, country, type of crime, year of intervention or population. In essence, the Moderators section discusses variation by *pre-existing* conditions only – i.e. *not* those which are introduced by the implementation or evaluation of the intervention. If the review, for example, undertakes sub-group analysis of the impact of the intervention on different types of crime outcome (e.g. serious vs non-serious crimes), then this should be reported in the Moderators section.

First paragraph:
Provide a narrative summary of whether the review referred to relevant contextual conditions.

- No stars: For reviews without any reference to moderators, use the following phrasing: "The review did not examine under what conditions or for what population groups the intervention might work best."

- One star: Provide a summary of the basic description of possible relevant conditions, "The review notes that the effect of the intervention might differ for…" Make it clear that the review did not analyse or test these moderating variables.

- Two or more stars: Provide a detailed description of the moderators and the results from the review analysis of these (and the influence on the direction and magnitude of the effect - see CCTV example below). When there are multiple moderators, use bullet points to specify what these are.

CCTV:
There is good evidence that CCTV effectiveness varies considerably by context.

In the reviewed studies (review 1), for every 100 crimes:
> *An average of 51 crimes were prevented within a car park context (based on 6 studies).*
> *An average of 19 crimes were prevented within a UK-based context (based on 34 studies).*

The effect of the following were non-significant; city and town centres (20 studies); public housing (8 studies); public transport (4 studies); non-UK studies (7 studies).

CCTV, therefore, appears most effective in a car park setting, and appears to be more effective in the UK than the other locations tested (largely the USA). Further evidence (review 2) suggests that CCTV can also be effective in the outskirts (suburbs) of a city (preventing 31 crimes for every 100).

IMPLEMENTATION

What can be said about implementing this initiative?

(EMM**I**E-Quality of evidence ★★☆☆)

Once more, a numerical scoring should be automatically generated by the spreadsheet and this should be translated into stars and inserted in brackets against the heading. The scores should be reported separately for each review that contributes evidence.

This section should summarise what was learned from the review(s) regarding the implementation of an intervention. How is it done? What is necessary for successful implementation? What factors were shown to facilitate or impede implementation?

Provide a summary of the implementation issues identified in the review. This section should provide a more detailed description of the intervention (see codes Impnecimp-e and Impnecrep-e) as well as identifying whether the authors identified/ tested any issues that facilitated or hindered the implementation of the intervention. Use numbering/ bullet points to separate and specify the different implementation issues.

First paragraph:

Provide a narrative summary of whether the review referred to implementation issues.

- No stars: For reviews without any reference to implementation, use the following phrasing: "The review gave no account of how the intervention was implemented, nor of any implementation challenges encountered by the primary studies."

- One star: Provide a summary of possible implementation issues.

- Two or more stars: Provide detailed description of the implementation issues, barriers and facilities as reported by the authors.

CCTV:
Both reviews note that the types of camera tested in the studies varied (e.g. pan, tilt, zoom cameras). The technical specification of cameras (e.g. their positioning or ability to record at night) should be considered during implementation. Most of the successful CCTV systems involved active monitoring of live footage from the cameras, typically by security personnel (i.e. not the police). The effective operation of the control room is therefore an important factor. Success also appears to be related to stronger public support, less political resistance and better funding. Public support can vary by context - for example, cameras attract more support in car parks. Implementation should be based on a careful analysis of the local crime problem - projects should have clear objectives and project managers with relevant knowledge should communicate with police.

Review 2 reported on the degree of coverage of the cameras. Overall, the effectiveness of a scheme was correlated (r= 0.63, p=0.021) with how much of an area the cameras covered. This suggests that having a high degree of coverage of the cameras is an important factor in gaining successful outcomes.

CCTV also appeared more successful when combined with other interventions (improved lighting, fencing, better parking payment schemes, security personnel, youth inclusion). For example, in review 2, the authors looked at the impact of the implementation of CCTV where other schemes were operating. The schemes that showed the largest desirable effects of CCTV on crime also included improvements in lighting.

ECONOMIC CONSIDERATIONS

How much might it cost? (EMMIE-Quality of evidence ★★★★)

The score for Quality should be taken from the code EconomicsQScore of the EMMIE coding spreadsheet. A numerical scoring should be automatically generated by the spreadsheet and this should be translated into stars and inserted in brackets against the heading. A separate Q score should be reported for each review that contributes evidence to this section.

This section should summarise key information on the costs of intervention. For example, the review may provide estimates of the cost of implementation, cost effectiveness analysis, or cost benefit analysis. Please summarise what is reported in the review and including any caveats, as appropriate.

First paragraph:
Provide a narrative summary of whether the review referred to economic issues/ undertook an economic analysis.

- No stars: "The Review did not mention the costs or benefits of CBT, and no formal economic analysis was provided."
- One star: "The Review estimated direct costs/ benefits, using the data available for the primary studies" or " Whilst the review did not undertake an economic analysis, some mention of costs was reported in the primary studies."

- Two or more stars: "The Review estimated and analysed a range of economic costs where data was provided by the primary studies."

Second paragraph:
Where appropriate**,** provide a description of the economic data reported in the review from the primary studies or the analysis conducted by the review.

CCTV
There is no information on costs of CCTV in either review but the authors of review 1 highlight some sources of data regarding the costs of implementation: a) One study estimated that more than £250 million (approximately $500 million) of public money was spent on CCTV over the 10-year period of 1992 to 2002 in the UK; b) according to another report, between 1999 and 2001 alone the British government made available £170 million (approximately $340 million) for "CCTV schemes in town and city centres, car parks, crime hot-spots and residential areas"; c) Estimates from the USA, suggest that figures range from $25 million spent on cameras in buses and subway stations in New York City, to $5 million spent in Chicago on a 2,000- camera system throughout the city center, to more than $10 million spent in Baltimore.

The reviews also note that re-deployable CCTV cameras - that can be moved easily between different locations – might be a less costly option. Information on the monetary costs or benefits of intervention are not discussed.

Note that in the CCTV example, the Q score is zero although there is some text concerning costs. This is acceptable and is useful when there is some relevant information even though quality is low. When using narrative sections like this keep evidence brief and ensure it is made clear that it might not be particularly reliable information.

General considerations

Provide here, in bullet format, any other relevant details (e.g. study design, other non-crime outcomes considered) that are not covered in the above that may be of interest to practitioners.

This is the place to highlight any critical issues about the review. This is where you can identify your concerns about the review (such as all studies being from the USA so caution should be taken when applying to other geographical contexts, or that the outcome types used, such as self-report data, are potentially problematic and misrepresent the effect…etc.). The coder can use their judgement/ critical interpretation of the review to highlight issues that the reader should note. Examples:

- When the majority of studies are from one geographical region "The majority of the evidence is based in the USA so caution should be taken when applying to other geographical contexts".

The general considerations section should aim to identify up to three key points (see Victim Offender Mediation example below), though for some reviews there may be no General Considerations required.

Victim Offender Mediation

Due to the voluntary nature of participation in most VOM programs, there is an inherent self-selection bias that makes interpretation of results difficult. The addition of measures that assess the offender's motivation for participation may provide a means to control for differences in motivation and openness to mediation.

Summary

A short summary of the narrative should be provided in a text box. This is meant to be an accessible and easy to read summary based on the full narrative. This should follow the same format above, providing a summary statement for each of the EMMIE statements. This should begin with a concise statement on the overall effect size (Effect). There is no formula for how to write up this summary so long as the narrative covers each of the EMMIE elements. Provide a summary of the theory of how the intervention is expected to work (Mechanism), any moderating factors identified/ tested (Moderators). The main implementation issues should be identified (Implementation) and costs outlined (Economics). If particular sections are not addressed by the review/ scored low then these could be phrased as 'Additional evidence is required to identify the moderating influence of [X] or "Further studies are needed to examine the implementation issues surrounding [intervention]".

The summary for CCTV is as follows.

> There is evidence that CCTV modestly reduces crime overall. There is also strong evidence that it is particularly effective in reducing crime in car parks. In looking at crime type specifically, the most significant reductions were for vehicle crime and there was no evidence of an effect on violent crime. Implementing CCTV with wider coverage, and in combination with other interventions, such as street lighting, can increase effectiveness. This overview does not consider the effect of CCTV on detection, public order or other uses.

Resources

Provide the reference(s) of the review(s) on which the summary is based and a URL to the study where possible. Use open access links as a preference.

If the authors were contacted for further information, then report this here. For example, "Review authors were contacted to provide further detail for clarification of the methods".

For CCTV:
Review 1*:* Welsh, Brandon C. and Farrington, David P. (2009) 'Public Area CCTV and Crime Prevention: An Updated Systematic Review and Meta-Analysis', *Justice Quarterly*, 26: 4, 716 — 745
http://www.tandfonline.com/doi/abs/10.1080/07418820802506206#.U6sE3a gWfio

Review 2*:* Farrington David P, Gill Martin, Waples, Sam J and Argomaniz, Javier (2007) The effects of closed-circuit television on crime: Meta-analysis of an English national quasi multi-site evaluation. *Journal of Experimental Criminology,* 3, 21-38 http://link.springer.com/article/10.1007/s11292-007-9024-2#page-1

UPDATING AN EXISTING NARRATIVE/ USING MULTIPLE REVIEWS FOR A NARRATIVE

The following rules and guidance apply to narratives that are based upon two or more systematic reviews:

1. Clearly label and distinguish between the reviews in the text of the narrative by numbering the reviews e.g. 'Review 1' and 'Review 2'. Ensure that you make it very clear in the Resources section at the bottom of the narrative which review is which (see example below).

2. Explicitly state that the narrative is based on multiple reviews in the second paragraph of the <u>What is the focus of the review?</u> section. If the reviews do not contribute to all sections of the narrative, specify which sections of EMMIE they provide evidence for.

3. For each of the EMMIE sections, add the star/ rating score for each review that contributes to that section. List the Review with the highest quality rating first (see example below) and then list the remaining reviews, in descending order of quality.

How does it work? (**EM**MIE-Quality of evidence: Review 2: ★★★☆, Review 1: ★☆☆☆)

4. When using multiple reviews to score the EMMIE-E section (i.e. **E**MMIE-Effect : X X ✓✓), adhere to the following rules:
    a. To populate the outer symbols (cross and tick) of the rating (that reflect the direction of the summary effect/ meta-analysis), use the meta-analysis from the review with the highest Effect-Q score.
    b. To populate the inner symbols (cross and tick) of the rating (that reflect the direction of the statistically significant findings from primary studies), use all of the reviews that contribute evidence on effect.

5. If two or more reviews contributing to the EMMIE-E section are of equal quality (scoring the same on the EFFECT-Q Score), then prioritise the review with the following:
    a. Largest number of primary studies
    b. Greatest statistical power (e.g. highest overall number of controls/ experimentals)
    c. Greatest generalizability (e.g. different contexts, different times, different countries)

6. If the new review evaluates the effectiveness of the intervention for a particular crime type (e.g. violent crime) and the original narrative refers to general crime, then report the findings of the new review in the Moderator

section. Use the scoring of the Effect section Effect Q, for the rating of the moderator section for this new review.

7. This narrative guidance has evolved over time. If you are updating an existing narrative, make sure that the revised narrative complies with the narrative guidance provided in this document. That is, revise the original wording if the original narrative needs to be re-written to improve clarity and understanding.

Frequently Asked Questions

The review reports the findings for many different outcomes, not only crime. Should I include all the findings? Yes, report other outcomes if/ where relevant in the general considerations section. Only report the findings for the crime reduction outcomes in the Effect section (specifying how many of the primary studies in the review included these outcomes). Be sure to explain that the narrative primarily focuses on the crime outcomes, as specified in the second paragraph of the [What is the focus of the review?](#) section.

What findings should I base my EMMIE effect code and interpretation on? Only statistically significant findings should be used to inform these.

A new review doesn't add anything substantial to the existing narrative. Should I still include it in an update of the narrative? Yes. The justification for this is that the new review corroborates the evidence presented, thus implying greater reliability, and also presents the fullest picture of the evidence to the readers.

Can I add extra resources to the reference list beyond the reviews on which the narrative is based? Only in exceptional circumstances where it is felt that additional references are necessary to supplement the information reported in the narrative. An example might be an important cost-benefit study which for some reason was not included in the systematic review.

Appendix 1: EFFECT codes and their interpretation

Table 1 – EFFECT codes (based on **XX✓✓**) and their interpretation

	Rating	Interpretation
1	**X X** ✓ ✓	Overall, the evidence suggests that the intervention has increased crime
2	**X X** ✓ ✓	Overall, the evidence suggests that the intervention has increased crime, but there is also some evidence that it has reduced crime
3	X **X** ✓ ✓	There is some evidence that the intervention has increased crime, but *overall* the intervention has not had a statistically significant effect on crime
4	X X ✓ ✓	No evidence to suggest that the intervention has had a statistically significant impact on crime
5	X **X** ✓ ✓	There is some evidence that the intervention has either increased or reduced crime, but *overall* it has not had a statistically significant effect on crime (or this was not tested).
6	X X ✓ ✓	There is some evidence that the intervention has reduced crime, but *overall* the intervention has not had a statistically significant effect on crime
7	X **X** ✓ ✓	Overall, the evidence suggests that the intervention has reduced crime, but there is some evidence that it has increased crime
8	X X ✓ ✓	Overall, the evidence suggests that the intervention has reduced crime
9	X X ✓ **✓**	Overall, the evidence suggests that the intervention has reduced crime, but there is no evidence of significant changes for individual studies
10	**X** X ✓ ✓	Overall, the evidence suggests that the intervention has increased crime, but there is no evidence of significant changes for individual studies.

How to decide which Effect code to use in the narrative:

Black ticks indicate statistically significant reductions in crime, while black crosses indicate statistically significant increases in crime (i.e. a backfire effect).

The first (i.e. outer left-hand) cross is in emboldened black if there is statistically significant evidence that the intervention ***increased crime overall*** i.e. the results of a meta-analysis are statistically significant in demonstrating a 'backfire effect'.

The second (i.e. inner) cross is in emboldened black if any of the ***primary*** studies covered by the review achieve statistically significant increases in crime as a result of the intervention. This can happen if there is a significant overall effect or not.

The first (i.e. inner) tick is in emboldened black if any of the ***primary*** studies covered by the review achieve statistically significant decreases in crime as a result of the intervention.

The second (i.e. outer) tick is in emboldened black if there is statistically significant evidence that the intervention ***decreased crime overall*** i.e. the results of a meta-analysis are statistically significant in demonstrating an overall reduction in crime as a result of the intervention.

Note therefore that the two outer symbols (ticks or crosses) refer to ***overall*** effects and the two inner symbols refer to significant effects from ***primary studies***. Thus, two bold ticks (or crosses) do not necessarily mean a greater effect than one tick (or cross).

Where the findings from more than one review are synthesized, the symbols should synthesize the evidence across them. Hence, as long as one (or more) review(s) has completed the appropriate statistical analyses (comparing changes in a treatment group over time to those in an appropriate control group using an appropriate statistical test) the findings should be reflected in the ticks/crosses. This might for instance lead to an inner symbol being emboldened. If there is more than one review that includes a statistical meta-analysis and one suggests an overall effect of intervention, while the other does not, the decision of whether to award an outer tick (or cross) should be informed by the review that is the most recent and most reliable.

Note that options 9 and 10 in Table 1 above are unlikely to be commonly used codes, and will be used most often when a systematic review reports overall effect sizes without giving details of effects from primary studies.
[Move back up to the Effect section.](#)

Appendix 2: Star ratings for Effect-Q

Table 2 – Star ratings for Effect-Q

Star rating for Effect Q	Associated text
★★★★	The review was sufficiently systematic that most forms of bias that could influence the study conclusions can be ruled out.
★★★☆	The review was sufficiently systematic that many forms of bias that could influence the study conclusions can be ruled out.
★★☆☆	The review was sufficiently systematic that some forms of bias that could influence the study conclusions can be ruled out.
★☆☆☆	The review was sufficiently systematic that few forms of bias that could influence the study conclusions can be ruled out.
☆☆☆☆	Text to reflect specific review

The scoring for the review (the number of stars) should be automatically generated in the EMMIE coding spreadsheet under EffectQSCORE.

Appendix 3: Narrative Template

What is the focus of the intervention?

EFFECT
How effective is it? (**E**MMIE-Effect : X X ✓✓)

How strong is the evidence? (**E**MMIE-Quality of evidence ★★★★)

MECHANISM
How does it work? (**EM**MIE-Quality of evidence ★★★★)

MODERATORS
In which contexts does it work best? (EM**M**IE-Quality of evidence★★★★)

IMPLEMENTATION
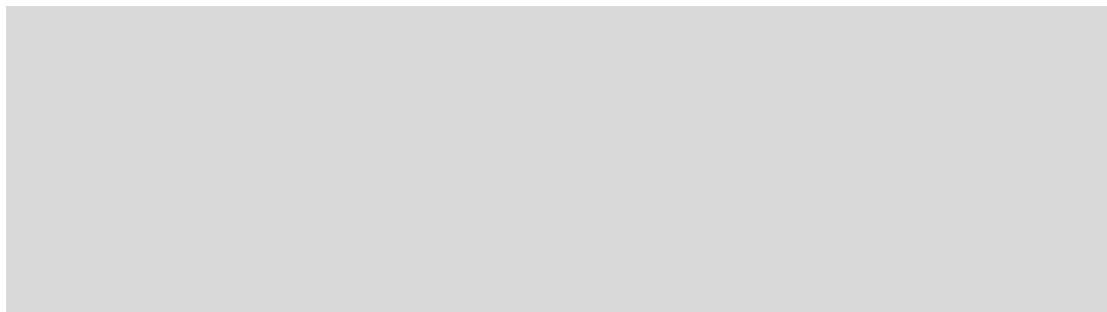**What can be said about implementing this initiative?**

(EMM**I**E-Quality of evidence ★★★★)

ECONOMIC CONSIDERATIONS
How much might it cost? (EMMI**E**-Quality of evidence ★★★★)

General considerations

Summary

Resources

*****Review 1**:

References

Johnson, S. D., Tilley, N., & Bowers, K. J. (2015). Introducing EMMIE: an evidence rating scale to encourage mixed-method crime prevention synthesis reviews. *Journal of Experimental Criminology*, *11*(3), 459-473.

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