

# ACF1 Another Chance Fund

## Evaluation protocol

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Project title <sup>1</sup>	<b>Another Chance Fund Focused Deterrence programme: a multicentred randomised controlled trial</b>
Developer (Institution)	Leicester, Leicestershire and Rutland Violence Reduction Network; Greater Manchester Combined Authority; West Midlands Police; and Nottingham Violence Reduction Unit
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Trial design	Multi-centre, two-arm, stratified randomised controlled trials with random allocation of individuals
Trial type	Efficacy/effectiveness
Evaluation setting	Community
Target group	14 to 40 year olds at risk of involvement in violence or already involved in violence.
Number of participants	Predicted to be approximately 2,500 individuals
Primary outcome and data source	Violence against the person; police records
Secondary outcome and data source	Time to offence (police records); co-offending (police records).

<sup>1</sup> Please make sure the title matches that in the header and that it is identified as a randomised trial as per the CONSORT requirements (CONSORT 1a).

### Protocol version history

Version	Date	Reason for revision
1.0	24/3/2023	
2.0	16/5/2023	Revisions in response to peer reviewer comments

*Any changes to the design or methods need to be discussed with the YEF Evaluation Manager and the developer team prior to any change(s) being finalised. Describe in the table above any agreed changes made to the evaluation design. Please ensure that these changes are also reflected in the SAP (CONSORT 3b, 6b).*

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## Study rationale and background

### Background

Focused deterrence is frequently cited as one of the most promising violence interventions ([Abt, 2019](#); [College of Policing, 2023](#)). The Youth Endowment Fund Toolkit describes it as the most impactful violence prevention intervention available and YEF have high confidence in its impact assessment ([Youth Endowment Fund, 2023](#)). However, it is important to note that YEF toolkit confidence ratings relate to the quality of the review undertaken, not the quality of the underlying evidence. As such, it is important to look at the underlying evidence for focused deterrence, which we do below.

Focused deterrence has been implemented in dozens of cities across the world, primarily in the US. Typically, the intervention is delivered at the group level with a focus on groups or gangs in urban centres who are involved in perpetrating serious violence. These groups are predominantly male and in late adolescence or early adulthood ([Braga, Weisburd and Turchan, 2018](#)).

### Focused deterrence interventions

Focused deterrence interventions have evolved in different ways to place different levels of emphasis on its **three core components: enforcement, support and community influence**. To be a focused deterrence programme, each of these three components must be present, but the extent to which each is prioritised varies locally. Models of focused deterrence have tended to prioritise the enforcement or the support component with community influence playing a minor role. Programmes like Group Violence Intervention are synonymous with an enforcement-led approach, while programmes that emphasise support, such as the Cincinnati Initiative to Reduce Violence are typically grouped as ‘public health approach’ models of focused deterrence. In practice, these interventions can be diverse but share a common framework and set of components. Within these three core components, there are also varieties. For example, **enforcement** may involve a sanction, the threat of a sanction or the disruption of gang-related activity in an indirect way. In this component, actors are typically police, but can include other services who pull enforcement ‘levers’. **Support** may include direct addressing of occupational, psychological and interpersonal needs, encouragement and reward for desistance or replacing antisocial identity through creation of prosocial opportunities and turning points. This is typically delivered by statutory and voluntary sector organisations. **Community influence** may include the signalling of non-violent norms within a community, exemplifying the potential for desistance, legitimising the focused deterrence intervention or proactively supporting the enforcement and support activities. Community influence is often conveyed through respected community leaders who speak for and on behalf of a community while individuals with lived experience of violence and desistance from crime can also be involved in the programme, for example as navigators, and exemplify the potential for desisting from violence.

Because of its multifaceted nature, the intervention is often delivered as a collaboration between police, other statutory agencies and community members/groups with police agencies often taking the lead. Focused deterrence interventions begin with a message to

target populations about the goals of the intervention (to prevent violence) and how the three components will be used. This messaging is often but not exclusively delivered in the form of a 'call-in' attended by the target population as a group, delivery teams, statutory services and community members, where attendees are addressed collectively ([Scott, 2017](#)) or as individuals ([Hamilton, Rosenfeld and Levin, 2018](#)).

### **Theoretical rationale for focused deterrence**

There is no consensus over how focused deterrence interventions theoretically achieve reductions in violence and because the intervention involves several interacting components, achieving a narrow, falsifiable theory of how it reduces violence is challenging. However, common explanations for how or why focused deterrence can be effective focus on the three components of deterrence: certainty, swiftness and severity ([Nagin, 2013](#)). Clear messaging from authority and community figures about the threat of enforcement and disruption consequences for continuing to engage in violence are supported by a change in enforcement practice and visibility. A reduction in violence across an individual's network further reduces the opportunity for violence. Once the deterrence activity has had an effect, support activities addressing psychological, interpersonal and occupational needs create the opportunity for desistance 'turning points' ([Sampson and Laub, 1993](#)). Alongside these direct activities, vocalising community norms about unacceptability of violence has been suggested as influential. Unfortunately, accounts from the target population are almost entirely absent from the literature. Qualitative work that describes the experience being involved in the intervention would help refine understanding of the intervention mechanisms.

### **Existing evidence base for the effectiveness focused deterrence**

The evidence base for focused deterrence is based on weak study designs. A recent systematic review included more than 24 efficacy/effectiveness evaluations. That review concluded that focused deterrence is an effective and valuable intervention to reduce serious violence but that the evidence base could be more rigorous and that there needs to be a better understanding of the causal contribution of each component of the intervention ([Braga et al, 2019](#)). None of the studies included in the review used a randomised controlled trial design, none were pre-registered or pre-specified, and most had too small sample sizes to make reliable population inferences. Studies also varied in terms of the outcomes used, levels of aggregation, and inferences being made. Because of these issues and despite the positive assertions of the review authors, collectively, the evidence base for focused deterrence neither justifies its status as an effective intervention nor is there convincing evidence of the generalisability of evidence generated in a US context, with its outlying availability of firearms and rates of firearm-related homicides, to a UK context.

The treatment unit in prior research was typically groups, which ranged in size from "small groups that self-identify as gangs up through large, highly organized, and structured gangs" ([Scott, 2017](#): 24). The typical outcome was counts of police-recorded violent offending, ranging from narrowly defined (e.g. firearm-related homicide only) to broadly defined (e.g. all violent crime). Comparison groups used in different studies depended on the outcome being analysed, but included non group-affiliated homicides, near-equivalent and non-

equivalent comparison zones within cities and comparison cities. Follow-up periods for the evaluations ranged from 6 to 65 months.

By extension, their study designs and the way in which these interventions are deployed, evaluations have very small sample sizes and are generally under-powered to detect population treatment effects ([Braga & Weisburd, 2014](#)). Because they are typically post hoc evaluations of routine practice intervention conditions, the interventions that were evaluated have tended to be allocated based on highest and most immediate risk rather than random allocation and rely on quasi-experimental designs that rely on stronger assumptions than experiments. These features make the findings highly susceptible to a range of biases, including false positive results as a consequence of being statistically under-powered and incorrectly attributing regression to the mean as treatment effects. Furthermore, as noted in a systematic review of focused deterrence ([Braga et al, 2019](#)), there appears to be a significant publication bias that, when adjusted, diminishes the effects of these quasi-experimental studies. Accordingly, the claims for a strong evidence base of the effectiveness of focused deterrence are overstated. We add that achieving robust randomised designs of interventions that use groups as the treatment unit in the UK would require unprecedented coordination of intervention and evaluation activity across extremely large populations to allow for sufficient numbers of groups to run a cluster-randomised trial. Although Braga and Weisburd ([2014](#)) advocated for this approach almost a decade ago, such an ambitious project has not yet been implemented.

### **Focused deterrence in the UK**

Focused deterrence has been implemented and evaluated three times in the UK: (1) The Community Initiative to Reduce Violence in Glasgow; (2) Operation Shield in London; and (3) CIRV Northampton. The Glasgow and Northampton models are best characterised by a support-led public health approach model of focused deterrence and were delivered by police teams working in collaboration with statutory and voluntary sector and community partners. Operation Shield was designed to be more enforcement-focused and was led by police with community partners.

The evaluation results of the Glasgow intervention were inconclusive or at least theoretically confusing: there were observed relative reductions in the number of possession of offensive weapon crimes but no change in police-recorded serious violence ([Williams, Currie, Linden & Donnelly, 2014](#)). The evaluation of Operation Shield in London did not proceed to an impact evaluation because of implementation failures ([Davies, Grossmith & Dawson, 2016](#)). The evaluation of CIRV Northampton ([Kerr, Wishart, Rantanen et al., 2021](#)), did not include a robust impact evaluation. However, two further evaluations of focused deterrence are underway led by the Metropolitan Police Service and are employing a randomised controlled trial design but the results of these studies are not yet available.

### **The Another Chance Fund Focused Deterrence programme**

In 2021, Youth Endowment Fund developed the Agency Collaboration Fund: Another chance, which is one of a suite of large-scale projects aiming to improve the evidence base

around multi-agency collaborations to prevent violence. The fund aims to address three key questions: Which partnership models work best to support children and young people and how? How do local conditions and contexts affect change? Which agency collaboration activities, interventions and approaches are most effective at preventing children and young people from becoming involved in violence?

Along with a programme focusing on diversion from criminal justice, a programme focusing on focused deterrence was launched. The fund was only open to applications from Violence Reduction Units and Police and Crime Commissioners (where a police force area was not covered by a VRU) for a defined geographic or municipal area.

Partnerships were required to include as a minimum:

- A Violence Reduction Unit and/or Office of Police & Crime Commissioner
- The local police force
- The local authority
- Probation services
- A lead voluntary and community sector organisations

In their applications, sites were asked to describe programme team diversity, partnership characteristics, letters of support, staffing expectations, a description of existing violence prevention partnerships, evidence of a local violence prevention issue with specific reference to group-related violence in the area, a proposed delivery model, an age-appropriate strategy, evidence of their ability to deliver at required scale and commitment to lasting system change, enhanced intelligence gathering processes, a description of overlapping projects, a commitment to data archiving from the project and pre-specified conditions around partnership maturity and data sharing.

Applications were submitted in March 2022 and a short list of sites entered a co-alignment phase of three months wherein they began to develop interventions based on a focused deterrence framework (see below). Simultaneously, the evaluation team was appointed following a competitive process. Following reviews of site suitability (e.g. sufficiently high levels of violence; number of intervention-eligible individuals; multi-agency buy-in), the shortlist was reduced to three and additional sites were recruited. Over a further six months, the final sites entered a Preparation phase where they developed interventions with the aim of beginning interventions in Spring 2023. Simultaneously, the evaluation team worked with the sites to ensure consistency with the YEF framework, to support the development of interventions with the capacity for rigorous evaluation through randomised controlled trials and to develop formative and summative evaluation strategies.

The result of this activity is a multicentred, two-arm randomised controlled trial implemented across five cities in England: Manchester, Leicester, Nottingham, Coventry and Wolverhampton. Four teams have been funded to develop and then deliver a focused deterrence intervention based on a nine-point set of principles developed by Youth Endowment Fund (YEF) ([Youth Endowment Fund, 2022](#)) that underpin all focused deterrence interventions. Three of the teams – Leicester, Nottingham and Manchester – are not police agencies but are based in, or centred around, regional Violence Reduction Units.

One team, which is responsible for interventions in Wolverhampton and Coventry, is police-led.

### **The YEF Focused Deterrence framework**

In 2021, in preparation for the Another Chance Fund grant round, YEF recognised that a multi-agency collaboration to develop an intervention requires a set of guiding principles. Accordingly, they developed a framework that is the core set of components of focused deterrence. It comprises of a list of essential delivery criteria, which YEF-funded partnerships must offer, as well as a list of flexible delivery criteria that may vary between places, depending on local context. The development of this framework was informed by a review of the evidence base ([Gaffney, Farrington and White, 2021a](#)), a series of interviews with professionals involved in delivering focused deterrence approaches in the UK, US, and Scandinavia, and iterated and refined with a YEF advisory group made up of experts in the field. Throughout the development phase of the Another Chance project, the developing programmes were assessed by the evaluation team and YEF on the extent to which their emerging programmes encapsulated the nine components. This 'framework' approach was preferred over a more formal manualised version of a programme as the former approach allows for contextual variation across sites. These permitted variations between sites reflect the history of focused deterrence programmes and enhance the feasibility of all five sites being able to deliver interventions that were acceptable to local services and communities and is more reflective of how future development and implementation of focused deterrence interventions would be likely to emerge in England and Wales. This decision represents a trade-off between homogeneity of intervention, as is typical in pharmacological trials, and the practicalities of community violence interventions that are resistant to high-fidelity implementation because of the complex nature of the intervention, target populations and delivery contexts.

### **Target population**

The population involved in this study – 14 to 40 year olds – is noteworthy because the upper limit of the age profile exceeds that of the YEF remit, which is to focus on violence involving children and young people. A further component of YEF's remit is to evaluate the most promising interventions to prevent violence, of which focused deterrence is one (Abt, 2018). However, the age profile for focused deterrence interventions typically is those in adulthood and arguably the intervention will have differing effects at different ages. To ensure that both components of the YEF remit can be addressed, a pragmatic decision was made to widen the age limit to include children and adults and to examine differences in intervention effects and experiences in children and adults as part of the formative evaluation.

### **Realist randomised controlled trial**

The evaluation design of this study is a realist randomised controlled trial consisting of a summative and formative evaluation. The summative evaluation is a multi-centred, two-arm randomised controlled trial and the formative evaluation is a realist evaluation of the delivery and fidelity of the programme combined with a longitudinal qualitative account of the intervention experience.

### **Randomised controlled trials**

This evaluation includes some of the only randomised controlled trials of a focused deterrence intervention. No feasibility study or pilot of a randomised controlled trial has been undertaken and also, because this is among the first evaluations to use individuals as the treatment groups, no estimate of effect is available. As described below, the evaluation design incorporates a pseudo-pilot after six months of delivery, at which point outcome and process data will be examined to provide the estimates and knowledge that a typical pilot and feasibility studies would provide. This examination of the data will also provide an opportunity to examine differences in delivery and intervention experience across groups.

### **Summative evaluation through a multi-site trial**

A randomised controlled trial was selected as this design gives the best chance of inferring causal effects from the evaluation and is consistent with the goals of YEF to fund the most rigorous evaluations. As noted above, the focused deterrence literature consists almost entirely of under-powered quasi-experimental designs that were often deployed after the treatment had been allocated, making them susceptible to regression to the mean effects and other biases. A multi-centred randomised controlled trial design has been selected for pragmatic reasons, specifically to generate the largest possible sample size giving sufficient statistical power to detect modest effects and reflecting the similarities in intervention theory of change, population, intervention, comparison strategies and outcomes. Power calculations for the evaluation are described in detail below.

A core assumption of multi-site trials is that there is homogeneity in what is delivered in each site (and what is experienced by the control group), the population to whom it is delivered and how that is evaluated. More so than pharmacological interventions or manualised behavioural interventions, multi-agency interventions in the community exist and are developed in a complex environment with a range of stakeholders who have competing and interacting priorities, resources and statutory responsibilities. In recognition of this, a goal of the Another Chance programme is to learn if multi-site interventions can be built and evaluated rigorously. In doing so, the nine-point YEF Focused Deterrence framework serves as the scaffolding for the focused deterrence intervention but allows sufficient opportunity for site-level contextual factors to emerge. This need for flexibility presents a challenge to the assumptions of multi-site trials as achieving a homogeneous intervention is likely to be extremely difficult. As will be notable below, the seven interventions being evaluated have heterogeneity in different aspects of what is being delivered, the context of violence in the areas, the partnerships that have been developed to deliver the intervention, the extent of community buy-in and the level of human and financial resource committed to the intervention. These will be documented in detail as part of the formative evaluation and the assumptions of homogeneity will be examined therein. As will be detailed in the statistical analysis plan, mitigation for insufficient homogeneity to group all sites into a single trial will involve the use of meta-analysis techniques, which relax the assumption of homogeneity but are likely to suffer from insufficient statistical power.

### **Formative evaluation**

The formative evaluation will use a realist approach to explain how the study worked, in what context and with what populations. The use of high-quality logic models and context-



mechanism-outcome (CMO) configurations are important to ensure the evaluability of the intervention. The evaluation will focus on three mechanisms of Focussed Deterrence: deterrence, support and the interaction between deterrence and support, and the outcomes will focus on violent offending and involvement in group violence. Although there are three components to focused deterrence (enforcement, support and community influence), community influence is not in doubt but the roles of support and enforcement are more contentious. As the dimensionality caused by a fourth, fifth or even sixth mechanism caused by the inclusion of community influence would result in an untenable number of configurations, we have chosen to focus on the most contentious and obvious mechanisms: enforcement, support and the interaction between the two.

The contexts will be finalised once delivery begins and clear contextual differences emerge (likely to be police-led vs statutory-led interventions). The evaluation will employ a mixed-methods design combining qualitative and quantitative methods, including semi-structured cross-sectional and longitudinal interviews, observations, survey questionnaires, and routine outcome performance monitoring using administrative data. Sampling for interviews and observations will vary, with the researchers aiming for a higher number of individuals included in the first round of cross-sectional interviews and retaining as many as possible for repeat interviews. Surveys with intervention participants will be administered predominantly online or in person.

#### **Divergence from focused deterrence evaluation literature**

Our divergence from group treatment units to using individuals as the treatment unit represents a trade-off between the feasibility of achieving sufficient statistical power and the theory that a group-level mechanism is essential for a focused deterrence intervention to be effective. In effect, a randomised controlled trial using a group as the treatment unit is not possible within available resources and population parameters of England and Wales (the remit of Youth Endowment Fund). In addition, the fluid nature of groups involved in violence means that constructing a group-level outcome is not realistic and would be extremely burdensome for police partners. As different police forces use different methodologies for recording group-level activity, particularly in the mapping of urban street gangs, attempting to construct a group-level outcome would introduce large risk of site-level variation in the construction of the outcome, which would undermine the credibility of a multi-site study design by having incomparable outcomes. The challenges of rigorously evaluating focused deterrence interventions using groups as the treatment unit have been discussed elsewhere ([Braga and Weisburd, 2014](#); [Braga et al, 2019](#); [Hamilton, Rosenfeld and Levin, 2018](#)).

## Intervention

The multi-centred trial will involve seven interventions delivered across five sites by four teams (see Table 1). Each intervention has been designed using the YEF Focused Deterrence framework (Appendix 1) but reflecting local context and team structure. Consequently, the core aims and activities are very similar as are the theories of change, but there will be variations in the practicalities of delivery activity across sites. The descriptions of the interventions below and theories of change included in the appendices demonstrate the similarities in the interventions.

The following sections describe the seven interventions following the TiDieR framework. More detailed manuals for each intervention are in preparation and when they are available, links to them will be added to this document.

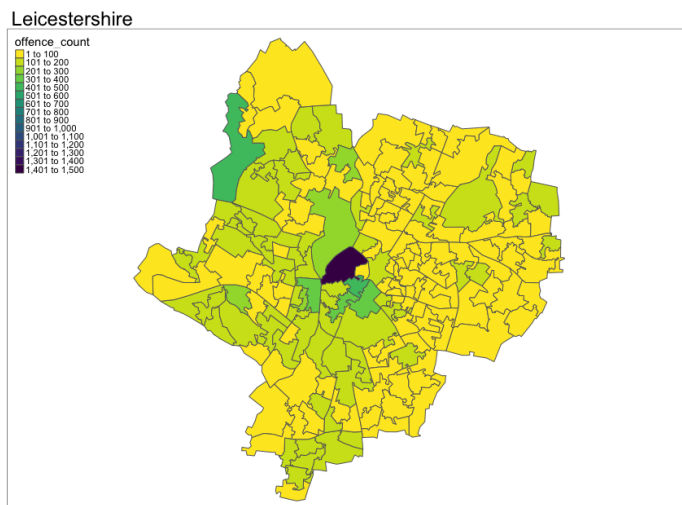
**Table 1. Seven interventions across five sites and four delivery teams**

<b>Trial number</b>	<b>Team</b>	<b>Site</b>	<b>Intervention name</b>
1	Leicester, Leicestershire and Rutland Violence Reduction Network	Leicester City	The Phoenix Programme
2	Greater Manchester Combined Authority	Manchester City	Another Chance Manchester
3	Nottingham Violence Reduction Unit	Nottingham City	Another Way
4	West Midlands Police	Coventry City	CIRV Coventry high risk pathway
5	West Midlands Police	Coventry City	CIRV Coventry referral pathway
6	West Midlands Police	Wolverhampton City	CIRV Wolverhampton high risk
7	West Midlands Police	Wolverhampton City	CIRV Wolverhampton referral pathway

## 1. Leicester: The Phoenix Programme

### Baseline description of violence in Leicester

The Leicester site – City of Leicester - covers 192 LSOAs across a single local authority and over 354,000 people across 73 km<sup>2</sup>. The city centre has very high counts of violence and there are significant pockets of violence in the west, south and eastern parts of the city. In 2021, there were around 19,000 violent offences in the city, of which around 11,500 were serious violence. This is a rate of around 54 violent or sexual offences per 1,000 population and around 260 violent or sexual offences per square kilometre.



### Rationale

The Phoenix Programme was created to combat serious violence in Leicester, Leicestershire, and Rutland. It focuses on addressing the needs of groups involved in violence and associated crime, particularly urban street gangs and organised crime networks. By analysing key networks, the program identified over 350 serious violence offenses and drug-related crimes. The individuals in these networks have multiple risk factors and high vulnerability due to trauma and victimization. The program adopts a focused deterrence approach, combining support, community engagement, and deterrence strategies. It emphasizes collaboration among agencies and the involvement of families and communities to bring about long-term change and culturally appropriate support.

### Aims

The programme aims to enhance community safety by reducing serious violence and associated crime. It employs a multi-agency partnership approach, utilizing data and evidence to identify high-risk networks and individuals objectively. The programme offers personalised support and opportunities for participants to break away from crime, while involving communities to foster positive connections. Open communication and enforcement actions deter those who refuse support and continue to cause harm. Additionally, the programme strives to address inequalities experienced by participants, recognizing their contribution to crime and violence. Measures are in place to minimize the risk of exacerbating inequalities within the criminal justice framework.

## Materials

Communication with participants takes place throughout their involvement in the intervention. This includes individual-level communication, as well as broader community-level communication about the reasons for the intervention, its aim, the support offered, as well as the consequences necessary to ensure the safety of participants and others. Leicester have developed the key messages of the intervention in collaboration with the co-design group, comprised of local community members with experience of the criminal justice system acting as a forum. In addition, Leicester have factored in dedicated resources through the local Violence Reduction Network's Community and Young Person Involvement Officer to engage with community members and groups of young people who reside in the areas in which the target groups come from. Their role is to collect qualitative insights on the key messages and methods of communication likely to be most effective. This will inform communication on an ongoing basis.

The messages will be used consistently albeit delivered in a tailored way. They emphasise safety and concern for participants (and their peers, families and communities), recognising the complexity of their situation, highlighting the offer of support but also outlining the consequences of not taking up the offer. It is important to have sufficient knowledge to personalise this message so that the consequences matter to the participant and are likely to have a deterrent effect.

## Procedure

### 1. Identification

In preparation for the local implementation of the Phoenix Programme, extensive data, intelligence, and practitioner and community insights have been collected and analysed to better understand the local serious violence problem and the networks driving it. The information collected includes details about the local groups involved in serious violence, as well as individuals associated with these groups. The sources of this information include police data management systems, intelligence officers, community engagement, and the Delivery Team. Incident reviews and social network analysis have also been conducted using police data and intelligence logs. This structured approach aims to identify and address the networks and members involved in serious violence based on an evidence-based approach.

### 2. Eligibility

An individual is eligible for the Phoenix Programme if they are a *member or associate of a group who are involved in committing serious violence or who are engaged in activities which drive the local serious violence problem such as drug supply.*

They must also meet one of the following criteria. In the past two years, they have been:

- arrested for or suspected of committing serious violence
- arrested for or suspected of committing offences involving a weapon or possession of a weapon
- flagged as a habitual knife carrier
- arrested for or suspected of drug offences.

The definition for serious violence includes the following crime types:

- Murder
- Manslaughter
- Attempt Murder
- Assault with Intent to Cause Serious Harm
- Endangering Life
- Assault with Injury
- Racially or Religiously Aggravated Assault with Injury
- Robbery of Business Property
- Robbery of Personal Property

### **3. Case review and contact preparation**

Individuals who meet the eligibility criteria are referred to the Interagency Working Group who determine suitability for the programme. Following a review and admittance, relevant personal, criminogenic and needs-based information about the individual is logged in the Case Record Management system. This information is passed to the project Delivery Team who review each case to consider and plan for the most appropriate way of communicating with the participant that they are on the programme.

The Delivery Team is responsible for implementing a program and ensuring its successful delivery. The team consists of various professionals, including seconded Police Officers, support agencies (Probation and Youth Justice), and community professionals known as Community Navigators. They work together to adhere to the program's approach and core principles.

The Delivery Team provides dedicated support to participants in the programme, but collaboration with partner organizations is necessary to achieve program goals. Many participants have faced challenges accessing services or have had negative experiences, which can affect their confidence and trust. Navigating the partnership landscape is complex, especially for those with complex needs, and resource constraints can cause delays. To address these challenges, partners have specified the services they can offer and the expected delivery timescales. Swifter access and designated Single Points of Contact have been established to support effective partnership working. Partners include departments for benefits, employment, substance misuse, physical health, mental health, housing, and family support. Participants involved in youth justice or probation management will also have access to additional relevant services. Inter Agency Working Group and the Adult Vulnerability and Offending Board serve as escalation routes if issues arise. Additionally, the program collaborates with various criminal justice services and programs, such as local prisons, the Crown Prosecution Service, Multi-Agency Public Protection Arrangements, Integrated Offender Management, and the Safeguarding/Child Criminal Exploitation Hub.

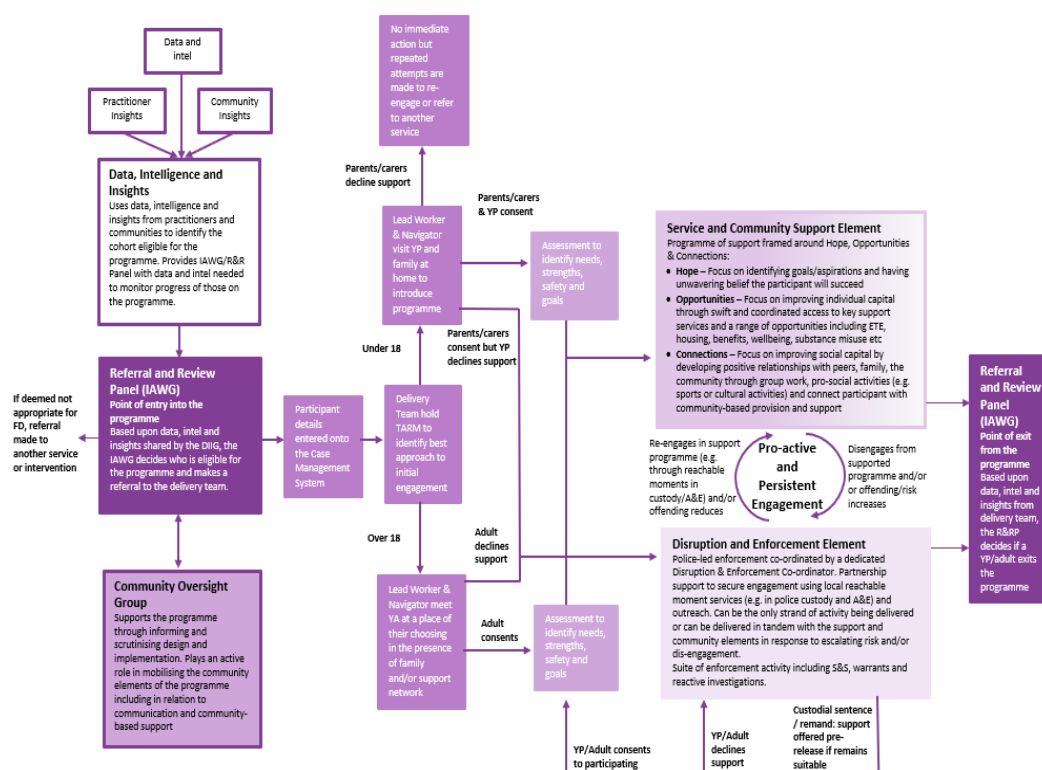
### **4. Contact and initial engagement**

The programme focuses on effective communication to engage participants and their families. Clear and consistent communication is provided regarding inclusion, opportunities, and consequences related to serious violence and crime involvement. Efforts are made to engage and re-engage participants in the programme, maintaining their involvement.

The triage and engagement process starts promptly, assessing risk and vulnerability to assign a lead worker and community navigator. Engagement planning includes selecting appropriate methods, involving parents or carers, and choosing safe meeting spaces.

Consent is sought from participants and their parents or carers for participation in the services component of the programme whereupon they proceed into the service and community support element of the programme [5]. If they decline the offer, they move into the disruption and enforcement element [6] where their risk and criminality is monitored.

Continuous engagement strategies are implemented to prevent setbacks and disengagement. Ongoing communication takes place individually and at the community level, conveying programme aims and support. Assessment, planning, and review processes manage risk and ensure progress. Safeguarding is prioritised, with safety plans developed for all participants.



## 5. Services and community support

The Services and Community Support component of the programme offers tailored and swift support to participants. It combines support from both services and communities to facilitate behaviour change and overcome challenges in accessing local support systems.

Support is provided through high-quality relationships and focuses on participants' goals. Lead Workers and Community Navigators utilize the Trilogy of Change Framework to offer a range of internal and external service and community support. The support includes:

- Hope: Participants are asked about their aspirations and supported in planning goals. They can access an Education, Training, and Employment Coach and receive informal coaching from a Community Navigator who models change.
- Opportunity: Participants receive emotional and practical support, social and life skills development, and educational input on the consequences of violence. They can access in-house psychological support, employment readiness services, job opportunities, and assistance with substance misuse, finances, benefits, debt, and housing.
- Connection: Lead Workers and Community Navigators promote repairing relationships through a restorative approach. They help participants develop new relationships and connect to community-based provision, facilitated by the local Violence Reduction Network team and its network of partners. Participants also have access to a dedicated Sports and Physical Activity Service.

The programme involves the participant's family and identifies additional significant individuals who can support positive change. Peer groups, faith-based organizations, and other networks may also play a role. Contact frequency depends on the level of support required, with a minimum of weekly meetings with Lead Workers and Community Navigators.

The Delivery Team utilizes various community venues, considering safety and participant preferences. They offer flexible meeting times, including evenings and weekends, and aim to accommodate participants' commitments. Missed appointments and setbacks are followed up promptly, and disengagement triggers increased re-engagement efforts.

Issues with accessing services are addressed through agreed processes, with significant obstacles escalated to the IAWG (Intensive Alternative Wraparound Group) for resolution by senior partners.

## **6. Enforcement**

The Disruption and Enforcement element of the Phoenix Programme aims to ensure safety, influence participants to engage in the program, and deter them from involvement in offending behaviour. Participants are informed about this element and its consequences during the initial engagement meeting and subsequent meetings.

To be eligible for the Disruption and Enforcement element, participants must meet specific criteria, including refusal to engage or disengagement from the service and community support element, as well as ongoing concerns about involvement in serious violence and associated crime. Participants may be simultaneously involved in both elements if there is low-level engagement or continued involvement in violence.

A dedicated Disruption and Enforcement Coordinator, employed by the police, will oversee enforcement activity and arrange that one or more police-led disruption or deterrence activities take place.

## **7. Exiting the programme**

Participants in the Phoenix Programme undergo various actions and activities as part of their transition from the program. They are encouraged to plan for leaving the program from the beginning, ensuring that long-term progress is not solely dependent on the program itself. The following actions support their transition:

1. Supportive Engagement: Lead Workers and Community Navigators concentrate service support during the initial months, gradually reducing it while increasing community support.
2. Participant-Led Exit Plan: Participants compile an exit plan, focusing on ongoing and new goals, available support networks, and planned responses to setbacks.
3. Continued Support: Former participants are provided an open-door policy to contact the team if needed, ensuring ongoing assistance.
4. Exit Assessment: Participants are assessed based on specific criteria for exiting the program, including no involvement in serious violence, weapon-related offenses, habitual knife carrying, or drug offenses during the preceding six to nine months.
5. Exit Decision: The Delivery Team discusses a participant's potential exit during regular meetings, considering their progress and exit plan. The decision is collectively made and recorded.
6. Celebration: Positive exits from the program are celebrated by involving relevant community and service partners to recognize the participant's achievements.

## **Providers**

1. Interagency Working Group: This group is responsible for reviewing referrals and determining the suitability of individuals for the program. They assess the eligibility criteria and make decisions regarding participation.

2. Delivery Team: The Delivery Team is responsible for implementing the program and ensuring its successful delivery. The team consists of professionals from different agencies, including seconded Police Officers, support agencies (such as Probation and Youth Justice), and community professionals known as Community Navigators. They work together to adhere to the program's approach and core principles.

3. Lead Workers: Lead Workers are assigned to individual participants and provide dedicated support throughout their involvement in the program. They work closely with participants, helping them set goals, access services, and make positive changes in their lives.

4. Community Navigators: Community Navigators are community professionals who work alongside Lead Workers. They offer informal coaching, model change, and provide support in accessing community-based provisions and resources. They play a role in repairing relationships and connecting participants to relevant services.



5. **Partner Organizations:** The program collaborates with various partner organizations to provide comprehensive support to participants. These partners include departments for benefits, employment, substance misuse, physical health, mental health, housing, and family support. For participants involved in youth justice or probation management, additional relevant services are available.

6. **Criminal Justice Services:** The program works closely with various criminal justice services and programs, including local prisons, the Crown Prosecution Service, Multi-Agency Public Protection Arrangements, Integrated Offender Management, and the Safeguarding/Child Criminal Exploitation Hub. These collaborations ensure a coordinated and holistic approach to addressing serious violence.

7. **Disruption and Enforcement Coordinator:** This role is fulfilled by a police officer who oversees the Disruption and Enforcement element of the program. They are responsible for ensuring evidence-based and proportionate activity, coordinating delivery, and liaising between the Delivery Team and external colleagues.

### **Modes of delivery**

The intervention is primarily provided individually, but there may also be group-based activities and support depending on the needs and preferences of the participants. The mode of delivery may vary depending on individual circumstances and preferences.

1. **Face-to-Face:** The programme emphasizes face-to-face engagement with participants. This involves direct in-person meetings between the participants and the Delivery Team, which includes seconded Police Officers, support agencies, and Community Navigators. Face-to-face interactions allow for personalised support, assessment, and planning, as well as building relationships with the participants and addressing their specific needs.

2. **Community Meetings:** The programme may also utilize community meetings to engage with participants. These meetings may involve participants, their families, and significant individuals from their community. Community meetings provide a platform for communication, support, and fostering positive connections. They are facilitated by the local Violence Reduction Network team and its network of partners.

3. **Telephone:** In addition to face-to-face interactions, telephone communication is employed to maintain contact with participants. Lead Workers and Community Navigators may have regular check-in calls or conversations with participants to provide support, guidance, and progress updates. Telephone communication allows for ongoing engagement, especially when face-to-face meetings are not feasible or practical.

### **Where**

Describe the type(s) of location(s) where the intervention occurred, including any necessary infrastructure or relevant features:

1. **Community Venues:** The programme utilizes community venues as a central location for engagement and support. These venues may include community centres, youth clubs, or other spaces within the local community.
2. **Police Stations:** Given the involvement of seconded Police Officers in the Delivery Team, some aspects of the intervention may take place within police stations. This could include initial engagement meetings, assessment interviews, or coordination meetings.
3. **Participant's Home:** Face-to-face meetings or home visits may occur at the participant's residence. This allows for personalised support and engagement within the participant's own environment.
4. **Educational Institutions:** As part of the programme's focus on education and training, interventions may occur within educational institutions such as schools, colleges, or training centres. Participants may receive educational input, career guidance, or skills development in these settings.
5. **Partner organizations' Facilities:** The programme collaborates with various partner organizations to provide comprehensive support to participants. These organizations may have their own facilities where specific services are delivered. For example, mental health support may be provided at a local mental health clinic, employment readiness services may be offered at a job centre, or substance misuse support may be available at a rehabilitation centre.
6. **Outdoor Spaces:** Depending on the activities planned, the intervention may involve utilizing outdoor spaces. This could include engaging in sports or physical activities, team-building exercises, or community events.

The necessary infrastructure and relevant features of these locations would vary. Community venues and partner organizations' facilities would typically have appropriate rooms or spaces for meetings, counselling, workshops, or group activities. Police stations would have the necessary infrastructure for conducting interviews or meetings, including interview rooms or dedicated meeting spaces.

## **When and how much**

The Phoenix Programme in Leicester is typically delivered over approximately six months. The exact details and duration may vary depending on the specific needs of the participants.

**Number of Sessions:** The intervention consists of a series of sessions that participants attend. The total number of sessions can vary depending on the needs of the individual and the objectives of the programme.

**Schedule and Duration:** The sessions are scheduled at regular intervals throughout the intervention period. The specific schedule can vary, but typically sessions are held weekly, bi-

weekly, or monthly, depending on the intensity and nature of the intervention. The duration of each session can also vary, typically ranging from one to three hours. The exact schedule and duration would be determined by the intervention team based on the needs and availability of the participants.

**Intensity or Dose:** The intensity may vary depending on the needs and progress of the individual. For some participants, the intervention may involve regular and intensive support, while for others it may be less frequent. This can be determined through ongoing assessments and evaluations by the delivery team.

**Period of Time:** The intervention is delivered over a specific period of time, which can range from a few months to a year or more, depending on the objectives and scope of the programme. The typical duration is approximately six months but formal exit from the programme can be delayed in line with individual needs.

### **Tailoring**

The tailoring of the intervention is carried out through a collaborative and ongoing process between the participant and the intervention team. It involves several steps:

1. **Initial Assessment:** At the beginning of the intervention, the participant's needs, goals, strengths, and challenges are assessed. This may involve interviews, questionnaires, observations, or standardised assessments.
2. **Individualised Planning:** Based on the assessment, an individualised plan is developed, outlining the specific objectives, strategies, and resources that will be utilised for the participant.
3. **Regular Monitoring:** Throughout the intervention, the participant's progress is regularly monitored and evaluated. This may involve periodic assessments, feedback sessions, or discussions to gauge the effectiveness of the intervention and identify any necessary adjustments.
4. **Adjustments and Adaptations:** If the participant's needs or circumstances change, or if certain aspects of the intervention are not yielding the desired results, adjustments and adaptations are made. This could involve modifying the content, pace, or delivery method of the intervention to better meet the participant's evolving needs.
5. **Ongoing Collaboration:** The intervention team maintains open communication with the participant, seeking their feedback, input, and concerns. This collaborative approach ensures that the intervention remains aligned with the participant's preferences and goals.

### **Theory of change**

The intervention theory of change is included as Appendix 3.

## **2. Manchester Another Chance**

### **Baseline description of violence in Manchester**

The proposed Manchester city site covers 282 LSOAs across a single local authority and over 556,000 people across 116 km<sup>2</sup>.

Due to a failure in police crime recording systems, data on police recorded crime and its geographical distribution is not available for the Greater Manchester Police area. This issue has been resolved and will not affect the use of police records as outcomes in the study.

To allow comparison of baseline levels of serious violence, data on hospital admissions for violent injury with a sharp object are presented below. These have been adjusted for population and area size to allow comparison of Manchester with the other five similar sites. The figures indicate that the rate of violence per 1,000 people and the rate of violence per km<sup>2</sup> is greater than in any of the other areas. Although the data are over four years old, it is unlikely that patterns in serious violence have changed significantly. This point is supported by a recent evaluation of Violence Reduction Units (of which Greater Manchester is one), which compared VRU-funded areas with non-VRU funded areas and found only modest change in rates of violence in any of the VRU-funded areas.

### **Rationale**

Manchester's programme will facilitate a mentor to work with eligible individuals to identify their needs as well as interests in order to match them with relevant services. Through this model of support, Manchester aims to be compassionate and inclusive, demonstrating to the individual that they have a voice which is recognised, rewarding them for good behaviour, but also setting clear boundaries with robust responses if breached. Engagement with the support offer will be encouraged by the availability and provision of a suite of enforcement measures delivered by Greater Manchester Police.

### **Aims**

To reduce involvement in violence of those aged 14 years and up who already have a criminal record of violence against the person and to support this population in desisting from future violence.

### **Materials**

Initial communication about the Another Chance support offer will take place between the individual and a police, and potentially partner agency representative regarding the intervention and offer of support. Communication will be tailored to the individual, being mindful of speech, language and communication needs and ensuring the material is appropriate for the widest range of people at this stage. Where the individual is under 18, material will also be made available to their parent/carer.

Greater Manchester Police will also have a schedule of contact relating to the enforcement activity.

## **Procedure**

### **1. Identification**

Potentially eligible individuals will be identified from police records and, in exceptional circumstances, may be referred through statutory services.

### **2. Eligibility**

Eligible individuals will be identified from this pool according to a set of eligibility criteria. This shortlist of eligible individuals will be triaged by a multi-agency programme panel. The triaged list will also be assessed for deconfliction (i.e. the removal or suspension of anyone who is subject to active police enforcement for organised crime activity).

Eligibility criteria are:

Connected to a homicide or near-miss violent offence with a group violence component committed in the past two years.

Committed a non-domestic abuse flagged violent offences in the past two years.

Resident in Manchester or North Trafford.

Aged 14-25 years.

### **3. Case review and contact planning**

A case worker and mentor will draw together multi-agency partner data on eligible individuals in order to develop a contact strategy designed to maximise individual engagement in the programme.

### **4. Contact and initial engagement**

The initial attempt to engage will be done in person informed by the contact planning and will involve the mentor and a police officer. Messaging about the programme will emphasise the potential to desist from violence, present the support offer and describe the consequences for non-engagement and continued involvement in violence.

### **5. Services and community support**

An informal contract will be developed that describes the programme and that references the consequences of continued involvement in violence. The support and services offered to the individual will be tailored to them, based on what is identified through sessions with the mentor. An additional budget will be available for each individual who is mentored to enable access through spot purchasing or similar to whatever may support the individual. This might include, for example, specific courses, work clothes, sports sessions or travel passes. Where something is identified that is not available, the case worker will be able to engage with delivery partners who are commissioning bodies to feed the information and identify whether it is something to be considered for commissioning plans.

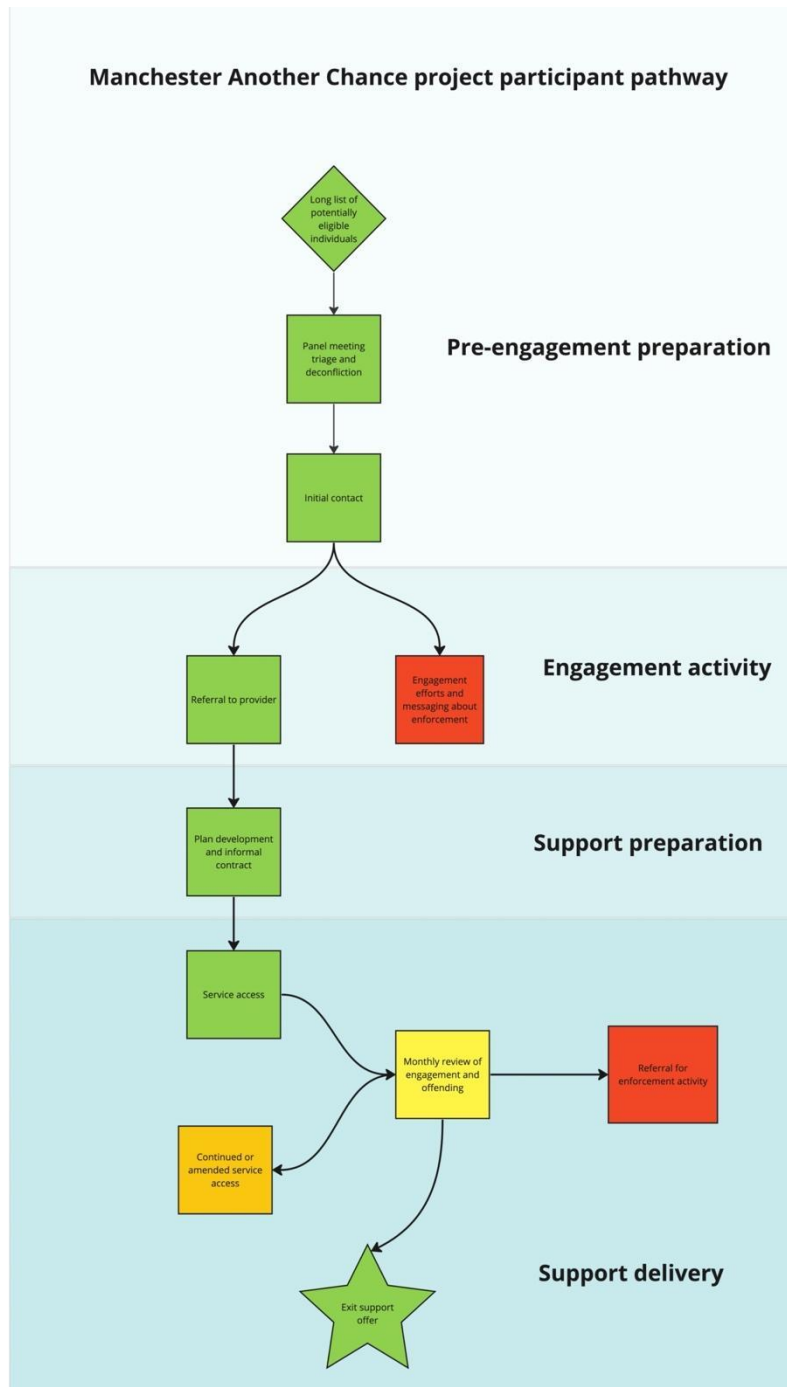
Individual engagement, progress and offending will be reviewed at monthly panel meetings attended by the project leads with input from mentors, case workers and statutory partners. At these reviews, three options are available: if progress is satisfactory, continue engagement; if the programme has met its aims for this individual, they may exit the programme; if they have continued to be involved in violence, they will be referred to Greater Manchester Police for enforcement activity and monitored for opportunities to re-engage them in the support offer.

## **6. Enforcement**

An individual will not be considered as 'disengaging' with the intervention until they commit a serious violent offence in a group-based dynamic. Even if support is continuously refused, and in those cases where individuals ask to not have the offer made anymore, they will not be considered to be disengaged (although no visits would be made to the house if they request this) until a relevant offence is committed. At the point that an individual involved in Another Chance commits a serious violence offence they will be referred to Greater Manchester Police and other statutory partners to action one or more of a suite of enforcement measures.

## **7. Exiting the programme**

It is estimated that sustained involvement with the programme will last approximately eight months.



## Providers

The Another Chance intervention has its own Delivery Group to provide regular operational oversight of the intervention. This consists of lead officers from Manchester Community Safety Partnership Team, Youth Justice, Complex Safeguarding, Greater Manchester Police, Probation, NHS Mental Health, Lived Experience adviser, Education, Community / VCSE representation, as well as the GMCA delivery team comprising of the Children and Young People Principal, head of research, data analyst, policy and partnership officers, community lead and comms lead. All partners are responsible for ensuring that training has been completed and is up to date for their employees. Roles that are put out to tender will have a

stipulation that up-to-date and relevant training, not limited to Safeguarding, trauma informed, and EDI are demonstrated as well as staff being fully vetted.

A specialist Case worker will be assigned to each individual. Their role will be to identify suitable support opportunities for individuals, to make referrals and to facilitate access to services.

A mentor, who will provide the link to the community, will serve as the individual-facing part of the project. Their role will be to establish a trusting relationship with the individual, to provide emotional support and to encourage their continued involvement in the intervention.

### **Modes of delivery**

The Mentor will be in regular contact with the individual and on hand 24/7, as and when needed, face to face or via other communications means. Working with the cohort will be done individually and face to face contact will take place in a range of settings, including the home, office, or community venues.

### **Where**

The mentor in partnership with, where required, the family worker will be providing ongoing support to the individual, including linking in community initiatives and faith groups to help build roots within the community and a sense of social value so that the individual is able to desist from crime after the structure of the intervention has concluded. The mentor will ensure that the individual is meeting their commitment as outlined in the contract; be it education, volunteer work, employment, extracurricular activities etc, whilst reinforcing positive messages and highlighting examples of people within the community, as well as externally, role models who have turned their lives around. This will be done via telephone, face-to-face meetings, emails or whatever medium is a suitable, safe way to communicate. The mentor will also be communicating any positive and encouraging messages coming through from schools or areas of influence that will build the individual's confidence. The mentor will ensure that there are no barriers to the individual's engagement by identifying weak points ranging from needing bus passes to supporting the family in partnership with the family worker, to safeguard the individual from issues like domestic abuse. The mentor will also help the individual understand the wider implications on their family and network if they break the contract, thus resulting in the enforcement arm being activated. Manchester will ensure that the mentor has appropriate qualifications including EDI and safeguarding. All staff will be required to pass a DBS check before working with the cohort. The mentor is expected to be available 24/7 to be responsive to the individual's needs.

### **When and how much**

Given the individual-focussed type of intervention, the number of sessions, their schedule, duration, and intensity will vary based on individual needs. It is anticipated that participation in the programme will last for approximately eight months, but further support will be available on an ad hoc basis informed by the individual's engagement with the programme and their individual needs.



**Tailoring**

The support part of the intervention is intended to be personalised through working with the mentors. They are supposed to identify the unmet needs of individuals and, in working with them, offer opportunities where suited.

**Theory of change**

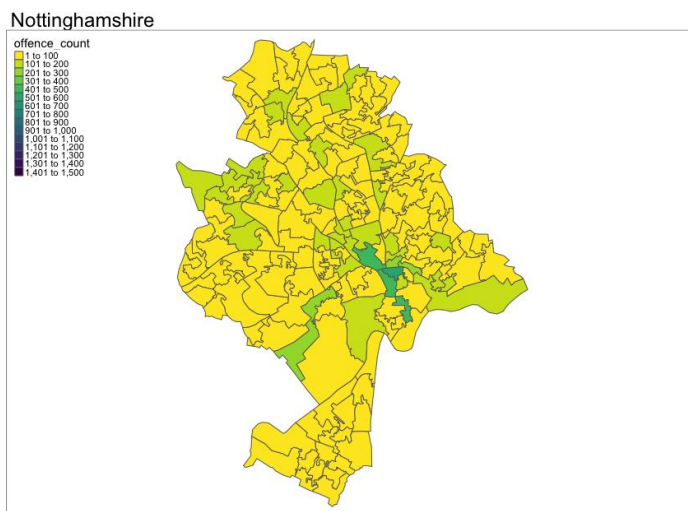
The intervention theory of change is included as Appendix 4.

### 3. Nottingham Another Way project

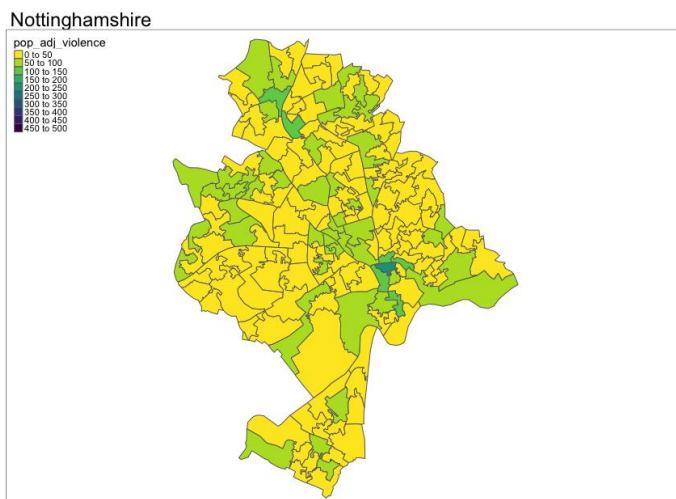
#### Baseline description of violence in Nottingham

The Nottingham site – City of Nottingham - covers 182 LSOAs across a single local authority and over 330,000 people across 75 km<sup>2</sup>. The city centre has high counts of violence and there are significant pockets of violence across the suburban parts of the city.

In 2021, there were around 15,000 violent offences in the city, of which around 10,000 were serious violence. This is a rate of around 45 violent or sexual offences per 1,000 population and around 200 violent or sexual offences per square kilometre.



Count of violent crimes, 2021



Number of violent crimes per 1,000 population, 2021

## Rationale

Nottingham's focused deterrence approach tackles the issue of serious youth violence by those involved in urban street gangs. These individuals, in many cases, live in deprived communities and have experience of multiple adverse childhood experiences and trauma. By working with the individuals most affected, Another Way project aims to offer support to reduce involvement in violence.

The intervention will promote desistance from violence through a simultaneous provision of support and deterrence. The provision of support will be a partnership with individuals to help them make and meet positive goals. Through a shared engagement between individuals and support workers, it will identify needs and goals for living a violence-free life and provide sustained support to help achieve these goals. The threat of enhanced enforcement will be used to encourage re-engagement with the support offer and, in the instance of continued involvement in violence, will result in focused disruption activity by the Neighbourhood Safety and Disruption Panel, which consists of police and Youth Justice partners.

## Aims

To reduce involvement in violence of those aged 14 years and up who already have a criminal record of violence against the person and to support this population in desisting from future violence.

## Materials

**Information and intelligence** from police and other statutory service partners will be used to identify and select eligible individuals for involvement in the programme.

This information will inform a contact planning activity designed to maximise the likelihood of an individual taking up the programme offer and will result in a written **contact plan**. Contact will be initiated via **phone, letter and in-person contact**. Each form of contact will involve a description of the programme emphasising the support offer and consequences of not engaging and continuing to be involved in violence. This description will be included in an accessible **explanatory leaflet** given to eligible individuals.

Once an individual engages in the programme and a relationship is established between the case worker and the individual, they will work together to identify individual needs and ambitions which will form the basis of a **shared support plan and informal contract** that details the commitment made by the programme and the individual, including a reference to consequences for failing to engage and/or continue their involvement in violence.

## Procedure

### 1. Identification

Identification will be undertaken by the project researcher who will identify eligible individuals from police data using a set of criteria (see below). Referral from partners and self-referral is possible but not routine and all referrals will be subject to the same screening

procedures as individuals identified through the police data route. This activity will be undertaken every three months.

## **2. Eligibility**

An individual is eligible for Another Way Programme if they are aged between 14-24 and residing within the Nottingham City boundary or have group bonds formed from time residing in the city or have familial links to the area. They also need to have been arrested for *violence against the person, robbery, or possession of weapons offences* in the previous 12 months. In addition, they need to have been arrested for one or more of the following offences as part of a group of 3 or more in the preceding 24 months in Nottingham:

- Violence against the person
- Criminal damage and arson
- Robbery
- Drug offences
- Possession of weapon offences
- Public disorder

If an individual has not committed a violence against the person, robbery, or possession of weapons offence in the preceding 12 months but has committed an offence as part of a group within the preceding 24 months, then the following will be considered to establish eligibility on a case-by-case basis:

- Other offences committed in the preceding 12 months including drug offences, criminal damage and arson and public disorder offences.
- Out of Force offending
- County Lines or Criminal Exploitation vulnerability markers
- Intelligence review that indicates they are a part of an offending group
- Familial links to violent offenders

## **3. Case review and contact preparation**

Case workers will draw together multi-agency partner data on eligible individuals in order to develop a contact strategy designed to maximise individual engagement in the programme.

## **4. Contact and initial engagement**

The initial attempt to engage can be done via the letter, phone, or physically, at the individual's doorstep: informed by the contact planning, the most suitable opportunities will be used to elicit the initial contact. The programme would also aim to engage with the family, especially if the person is under the age of 18. This will be done by the case worker or youth justice. They will provide an information leaflet for the young person and their families, and ask for consent to engage.

The initial meeting will be followed by a series of meetings that aim to build a relationship between the case worker to establish investment in the programme and to learn about the

individual. If the individual agrees to engage with the programme, the case worker and the individual will work together to assess the individual's needs and motivations and to set a number of goals for the programme.

This plan will be agreed as an informal contract, which will include information about the enforcement consequences of failure to engage and continued involvement in violence.

## **5. Services and community support**

The individual will then be referred to and can avail of a range of support offers based on an existing suite of support through statutory and voluntary sector partners or through bespoke opportunities identified in the planning process.

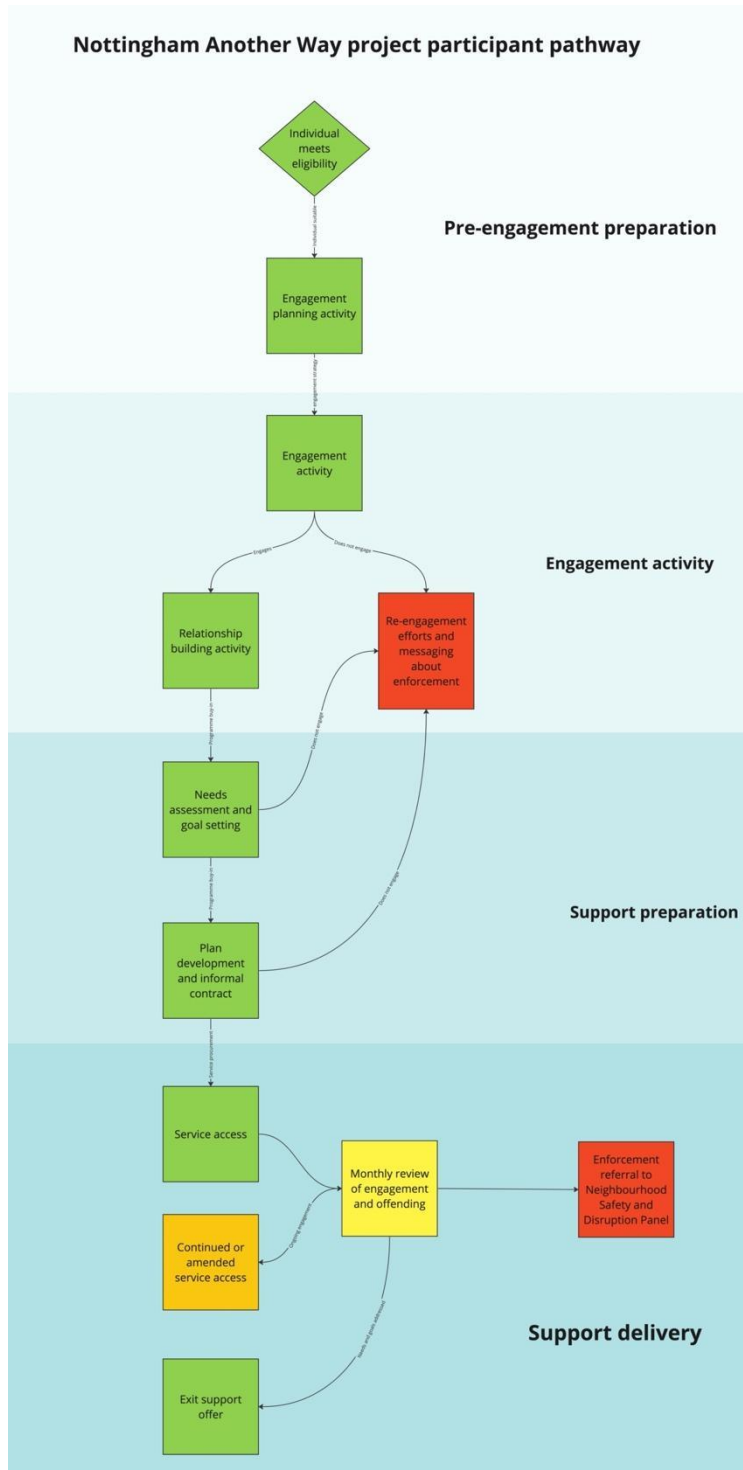
The Services and Community Support component of the programme offers tailored support to participants. After assessing the individual's needs, support can be with substance use, mental health, employment, education, and similar. It will be provided by community/voluntary sector providers.

Individual engagement, progress and offending will be reviewed at monthly project meetings attended by the project leads, case workers, probation, police, Nottingham modern slavery and exploitation team and Youth Justice staff. At these reviews, three options are available: if progress is satisfactory, continue engagement; if the programme has met its aims for this individual, they may exit the programme; if they have not engaged and/or continued to be involved in violence, they will be referred to the Neighbourhood Safety and Disruption Team for enforcement activity and monitored for opportunities to re-engage them in the support offer.

## **6. Enforcement**

The Disruption and Enforcement element of Another Way Programme aims to (re-)engage individuals in the program and deter them from involvement in offending behaviour. In so doing, the team will search for what works with each individual to make a meaningful effort. This will be done through NSDP (Neighbourhood Safety and Disruption Panel), police, and youth justice. Participants are informed about this element and its consequences during the initial engagement meeting and through the contract signed.

To be eligible for the Disruption and Enforcement element, participants must meet specific criteria, including refusal to engage or disengagement from the service and community support element, as well as ongoing concerns about involvement in serious violence and associated crime. Participants may be simultaneously involved in both elements if there are low-level engagement or continued involvement in violence.



## 7. Exiting the programme

Participants in Another Way Programme can transition out of the programme through a slow reduction of the intensity of services. This is expected to be within 3-6 months from the start of the programme, but there will never be a fully closed door for the participants.

There will be monthly reviews of the individual's progress. This will use police data on engagement with violence and case worker's information on engagement with the programme. There can be three potential outcomes from the reviews: 1) continued engagement with support; 2) exiting the programme; 3) referral to NSDP for enhanced enforcement/disruption.

### **Providers**

There is no official qualification needed for case workers, but they will have had a number of mandatory trainings focussing on specific mental-health awareness (e.g., autism, substance abuse), exploitation, modern slavery, domestic and sexual violence, and safeguarding. The specialist services provided will be administered by the professional practitioners with relevant training and qualifications; most will be the existing services, although bespoke ones could be contracted, if needed.

### **Modes of delivery**

Working with the cohort will be on a one-to-one basis. The navigator will be in frequent contact in a form that best suits the individual (SMS, calls and in-person). Face to face contact will take place in a range of settings including the home, office, community venues, school or cafes.

### **Where**

Face to face contact will take place in a range of settings including the home, office, community venues, school or cafes.

### **When and how much**

Given the individual-focussed type of intervention, the number of sessions, their schedule, duration, and intensity will vary based on individual needs, ambitions, and goals.

A multi-agency monthly review meetings will offer the opportunity to adjust the nature of the support and enforcement components of the project for individuals dependent on their engagement and/or offending in the preceding month.

### **Tailoring**

The support part of the intervention is intended to be personalised through working with the case workers/youth justice. They are supposed to identify the unmet needs of individuals and, in working with them, offer opportunities where suited. This will also help the participants to have ownership of the programme and their progress.

### **Theory of change**

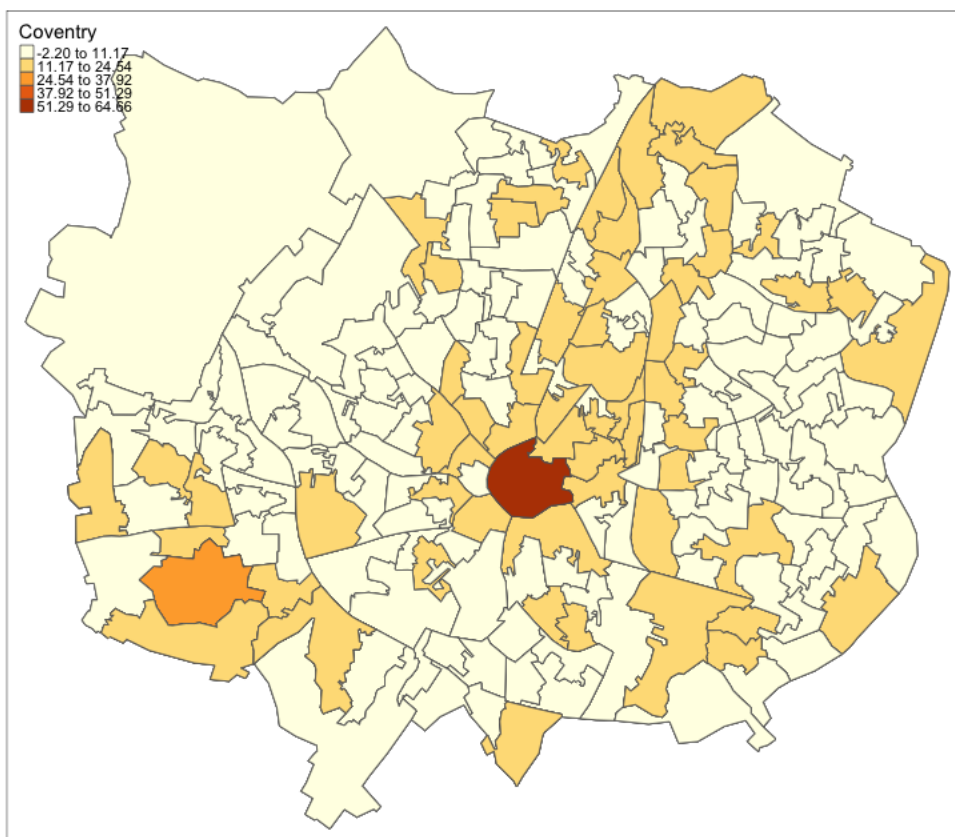
The intervention theory of change is included as Appendix 5.

#### 4. Coventry Community Initiative to Reduce Violence (CIRV; high-risk cohort)

##### Baseline description of violence in Coventry

The Coventry site – Coventry City – covers 195 LSOAs across a single local authority and over 345,000 people across 99 km<sup>2</sup>. The city centre has high counts of violence and there are significant pockets of violence across the suburban parts of the city.

In 2021, there were around 11,300 violent offences in the city, of which around 7,500 were serious violence. This is a rate of around 33 violent or sexual offences per 1,000 population and around 114 violent or sexual offences per square kilometre.



##### Rationale

The CIRV intervention uses a police-led navigator approach to support people to disengage from violent group and violent behaviour. CIRV is a mechanism for identifying risk, being there when it matters (teachable/reachable moment), sequencing interventions that are more often than not already commissioned, and placing the young person into an actual opportunity. The direction of control is with the police navigator and the approach is primarily designed to engage anyone who is at high-risk of violence and fits the selection criteria, connecting them to an exit pathway from gangs, violence and county lines. When necessary, the approach also coordinates disruptive functions for those who are criminally active, yet fail or refuse to engage.



## **Aims**

CIRV aims to reduce violence and make communities and individuals safer. It aims to do this by supporting those involved in, or at risk of, violence associated with gang or group involvement, and offering a “way out” of a violent lifestyle.

## **Materials**

All members of the intervention cohort will have a ‘CIRV’ marker placed on their Police National Computer record which will include details of the CIRV intervention and contact details for a 24hr hotline. Upon receiving a call from a police officer, the CIRV team will respond immediately to a call for CIRV support and seek to engage the individual.

Participants who engage with the intervention will establish a contract (that will not be signed) that outlines in plain English what the intervention seeks to achieve and what would constitute enforcement action etc. This will be in a variety of languages and adapted for a range of abilities, using an intermediary where required. The CIRV intervention is branded differently and will look and feel very different to what has happened before to ensure police and partners deliver a new message to individuals and groups to what has been communicated previously. This includes, but is not limited to brand, approach, and the fact that CIRV is based in a community setting and involves the community in its delivery by virtue of the voluntary sector partner.

Adults who agree to participate in the intervention will be required to wear a GPS tracking device for the duration of their involvement in the intervention as a show of trust and commitment to the intervention.

## **Procedure**

### **1. Identification**

Individuals who may be eligible for inclusion are identified by CIRV team members who have access to police records.

### **2. Eligibility**

The eligibility criteria are:

#### **(Must tick ALL of List A)**

##### **List A:**

Aged 14years or over

An objective link to a recognised group within the city

Address to be within the ward boundaries of the city

#### **(At least one or more from List B)**

##### **List B:**

Have a violent offence committed (listed as a suspect) within the last 18 months that is non-Domestic Abuse (include violence with injury, homicide, possession of weapons).

Police intelligence linked to Organised Crime Group with a violent threat / sub-threat.

Individuals who fulfil the eligibility criteria will be identified by police and supporting services. Following identification as eligible, CIRV administrators will set up the ECINS profile and add a CIRV PNC marker to their Police National Computer (PNC) record. If that individual is stopped or arrested by police or when they have come to notice of other agencies (e.g. hospitals), the PNC marker will inform police officers accessing the individual's record that they should contact the on-call CIRV navigator immediately using the provided phone numbers. The Navigator will then assess the situation as to whether it is an appropriate opportunity to engage the person and then attempt to gain their consent to receive support. In most cases, a visit will be arranged with the arrested person during their custody period.

### **3. Contact and initial engagement**

The Navigator's primary job is to establish a relationship with the referred person through swift and effective action, proving reliability and support. The Navigator clarifies their role as a Police Officer and works with the referred person to help them make their own decisions. The Navigator presents choices and options to the referred person about their potential routes away from violence and describes the CIRV support offer.

The Outcome Star assessment tool is introduced within the first three appointments to monitor progress. The Navigator arranges a meeting with a specialist careers advisor and opportunities finder to identify the person's desired objectives and direction.

The Opportunities Finder seeks out actual job or opportunity options aligned with the person's aspirations, leveraging local businesses for support. The referred person and Navigator then collaborate on necessary steps to become ready for the identified job or opportunity. The objective pursued is determined by the young person themselves, ensuring personal ownership and motivation.

The wearing of a GPS tracker is mandatory for all adults receiving support, for at least the first month of engagement, following which continued use should be agreed with a supervisor who will consider level of engagement and risk. Under rare circumstances, this can be by-passed if agreed by a CIRV Sergeant and the Deputy CIRV Manager. Wearing of the tracker is optional for youths but should be encouraged, particularly for those higher risk cases.

### **4. Services and community support**

CIRV plays a crucial role in sequencing interventions and ensuring they align with the set objective for the referred person.

Conflicts can arise when multiple agencies are involved, each pursuing different actions. The Navigator takes ownership to identify all involved parties, establish communication between them, and clarify their roles in the person's life. The Navigator influences and leads to overcome obstacles from the agencies involved. They may decide to introduce specific interventions based on setbacks or relationship issues with providers.

Managing interdependencies and relationships is essential during this stage, as it greatly impacts effectiveness. The referred person should understand their journey and perceive progress towards their objective to maintain engagement with the Navigator.

Regular progress checks and measuring tools are utilised, including gathering feedback from the young person on their perception of progress. The Navigator's responsibility is to address the young person's needs by resolving them together, rather than doing it on behalf of the person.

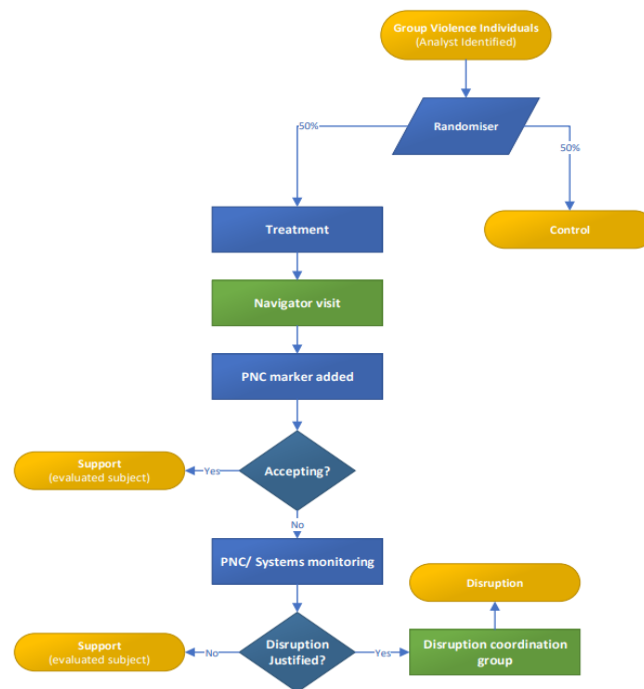
## **5. Enforcement**

Individuals who are suitable for the CIRV program but choose not to engage will be subjected to disruptive activities. The specific tactics employed will be determined based on the individual's risk level to themselves, others, or the community. The College of Policing's disruption toolkit for serious organised criminality will be used as a resource for selecting appropriate tactics.

The primary goal is always to engage individuals in the program and divert them from violence. CIRV constantly scans for "teachable and reachable moments" in real-time, operating 24/7. If an individual with a CIRV marker on their Police National Computer (PNC) record is arrested anywhere in England or Wales, the arresting officer will contact the on-call CIRV phone number indicated on the PNC marker. An assessment will be conducted, and in most cases, a visit will be arranged with the arrested person during their custody period. A similar process occurs if the person visits an Emergency Department with a suspicious injury or if new intelligence emerges. During the visit, the Navigator outlines an alternative plan for the young person to escape their circumstances and achieve a positive future. CIRV does not interfere with the criminal justice outcome. The process of visiting during reachable or teachable moments is repeated until engagement is established. It can take months or even years to achieve engagement.

## **6. Exiting the programme**

The Navigator will work to then place the referred person into their chosen and identified opportunity as identified by the opportunities finder and confirmed by the referred person. This handover may take some time as the Navigator will ensure that the client is settled and happy before stepping back and it is only when the client is happy that we will do this. Once all parties are content that the transition into the placement is successful the referred person is voluntarily deselected from the programme but will remain supported for as long as required. Times of engaging with the project will vary, but typical periods will be three to six months.



## Providers

The Navigators working with the participants will receive similar training to that of the Police Negotiator including advanced psychological inputs, to help overcome the initially experienced barriers.

## Modes of delivery

High-risk individuals that fit the inclusion criteria will be referred to CIRV directly from the PNC following their involvement in violent (group) offences. The mode of delivery will be predominantly face-to-face, working individually with intervention participants.

Many of the individuals concerned will be case managed and have contact from their navigator at least weekly, and many others will be visited during reachable and teachable moments. Thus, those involved in gangs and group disputes will have the following contacts with the intervention:

- In a teachable moment before referral
- In a teachable moment when already accepted by intervention
- Via their navigator during regular, planned contact
- Via a call-in after an incident of serious violence from a disruption officer
- During a disruption interaction due to crime participation and non-engagement

As indicated in the above list, the planned communication method and style is both targeted and specific to the audience it is trying to reach.

**Where**

Intervention can occur in a number of places, including the places of multi-agency triage, the participant's home, or community spaces.

**When and how much**

As the intervention will be tailored to individuals' needs, the exact duration, intensity, and dose of contact will differ. Many will have contact from their navigator at least weekly, while others will be visited during reachable and teachable moments.

**Tailoring**

The support component will be personalised, based on an individual's unmet need. This will be assessed on an ongoing basis through their work with the navigator.

**Theory of change**

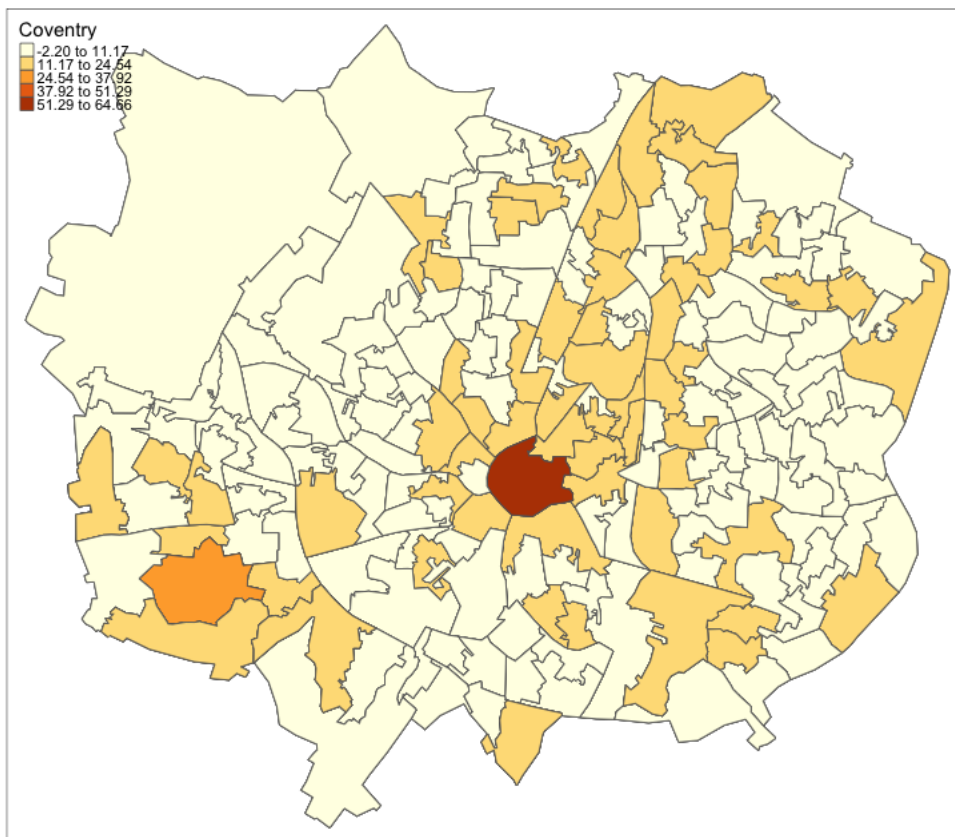
The intervention theory of change is included as Appendix 6.

## 5. Coventry Community Initiative to Reduce Violence (CIRV; referral cohort)

### Baseline description of violence in Coventry

The Coventry site – Coventry City – covers 195 LSOAs across a single local authority and over 345,000 people across 99 km<sup>2</sup>. The city centre has high counts of violence and there are significant pockets of violence across the suburban parts of the city.

In 2021, there were around 11,300 violent offences in the city, of which around 7,500 were serious violence. This is a rate of around 33 violent or sexual offences per 1,000 population and around 114 violent or sexual offences per square kilometre.



### Rationale

The CIRV intervention uses a police-led navigator approach to support people to disengage from violent group and violent behaviour. CIRV is a mechanism for identifying risk, being there when it matters (teachable/reachable moment), sequencing interventions that are more often than not already commissioned, and placing the young person into an actual opportunity. The direction of control is with the police navigator and the approach is primarily designed to engage anyone who is at high-risk of violence and fits the selection criteria, connecting them to an exit pathway from gangs, violence and county lines. When necessary, the approach also coordinates disruptive functions for those who are criminally active, yet fail or refuse to engage.

## **Aims**

CIRV aims to reduce violence and make communities and individuals safer. It aims to do this by supporting those involved in, or at risk of, violence associated with gang or group involvement, and offering a “way out” of a violent lifestyle.

## **Materials**

All members of the intervention cohort will have a ‘CIRV’ marker placed on their Police National Computer record which will include details of the CIRV intervention and contact details for a 24hr hotline. Upon receiving a call from a police officer, the CIRV team will respond immediately to a call for CIRV support and seek to engage the individual. Participants who engage with the intervention will establish a contract (that will not be signed) that outlines in plain English what the intervention seeks to achieve and what would constitute enforcement action etc. This will be in a variety of languages and adapted for a range of abilities, using an intermediary where required. The CIRV intervention is branded differently and will look and feel very different to what has happened before to ensure police and partners deliver a new message to individuals and groups to what has been communicated previously. This includes, but is not limited to brand, approach, and the fact that CIRV is based in a community setting and involves the community in its delivery by virtue of the voluntary sector partner.

Adults who agree to participate in the intervention will be required to wear a GPS tracking device for the duration of their involvement in the intervention as a show of trust and commitment to the intervention.

## **Procedure**

### **1. Identification**

An electronic CIRV referral form is available to any person via the CIRV website ([www.cirv.co.uk](http://www.cirv.co.uk)). Referrals can also be made by individuals themselves.

The forms are very simple and only take a few minutes to complete. Basic details of the referrer are required, a summary of the concerns, an indication that the person is willing to engage in the programme or that there is parental consent in case of a juvenile.

Contact details of the referred person and/or parent are required so that the referral can be followed up by CIRV team members. Once the form is submitted, the referrer will receive an automated reference number confirming successful application and this can then be used to make any subsequent enquiries with the CIRV team. Self-referrals can also be made via the CIRV Helpline which is staffed during 24/7.

### **2. Eligibility**

Individuals who fulfil the eligibility criteria will be identified by police and supporting services. Following identification as eligible, CIRV administrators will set up the ECINS profile and add a CIRV PNC marker to their Police National Computer (PNC) record. If that individual is stopped or arrested by police or when they have come to notice of other agencies (e.g. hospitals), the PNC marker will inform police officers accessing the individual’s record that

they should contact the on-call CIRV navigator immediately using the provided phone numbers. The Navigator will then assess the situation as to whether it is an appropriate opportunity to engage the person and then attempt to gain their consent to receive support. In most cases, a visit will be arranged with the arrested person during their custody period.

The eligibility criteria are:

**(Must have at least one of List A)**

**List A:**

**Source: Police**

Evidence of involvement in violence / exploitation

Missing episode(s)

Arrest for a trigger offence in last 12 months (PWITS, Weapon possession, any gang linked offence)

OCG linked or mapped nominal (or would be identified if mapping took place)

NRM pending or in place

At risk of Criminal Exploitation

**Source: Social Care / EH**

Known to SC / EH

Did not meet SC / EH threshold

Refused to engage / declined offer

Looked After Child

**Source: Health**

Poor engagement with universal health offer

Presentation with injury with requisite suspicion

**Source: Schools**

At risk of exclusion (PX)

Attends AP / PRU

Otherwise NEET

SEN

**Source: YOS / Probation**

Under YOS management / Probation management

Individual or sibling under YOS / Probation management

On licence / YO

**Source: Referral form / Family Visit**

Evidence of / at risk of exploitation

Evidence of familial issues / unstable home environment / criminality

Sibling or immediate family member linked to gangs / exploitation

**General Considerations**



Unexplained wealth / possessions  
Association with criminal peers  
Lives or associates in a known gang hotspot

**(Must meet all criteria in List B)**

**List B:**

Gang / Group linked and/or linked to controlled drug supply  
Must live the city or within 1 hour travelling distance (if moved out of city)

**(Must have none of List C)**

**List C:**

Under 14  
Acute mental health issues requiring specialist intervention  
Issue can be appropriately managed by a single agency only  
Statutory agency specifically requests no CIRV involvement as it may conflict / add no value to existing offer of support

**Immediate eligibility**

Any individual in custody for a trigger offence (PWITS, knife offence or assault) where there is a clear link to gangs or groups in that locality  
Any individual present at, or directly connected to, any incident of serious violence in that locality

**3. Case review and contact preparation**

Navigators will draw together multi-agency partner data on eligible individuals in order to develop a contact strategy designed to maximise individual engagement in the programme.

**4. Contact and initial engagement**

The Navigator's primary job is to establish a relationship with the referred person through swift and effective action, proving reliability and support. The Navigator clarifies their role as a Police Officer and works with the referred person to help them make their own decisions. The Navigator presents choices and options to the referred person about their potential routes away from violence and describes the CIRV support offer

The Outcome Star assessment tool is introduced within the first three appointments to monitor progress. The Navigator arranges a meeting with a specialist careers advisor and opportunities finder to identify the person's desired objectives and direction.

The Opportunities Finder seeks out actual job or opportunity options aligned with the person's aspirations, leveraging local businesses for support. The referred person and Navigator then collaborate on necessary steps to become ready for the identified job or

opportunity. The objective pursued is determined by the young person themselves, ensuring personal ownership and motivation.

The wearing of a GPS tracker is mandatory for all adults receiving support, for at least the first month of engagement, following which continued use should be agreed with a supervisor who will consider level of engagement and risk. Under rare circumstances, this can be by-passed if agreed by a CIRV Sergeant and the Deputy CIRV Manager. Wearing of the tracker is optional for youths but should be encouraged, particularly for those higher risk cases.

## **5. Services and community support**

CIRV plays a crucial role in sequencing interventions and ensuring they align with the set objective for the referred person.

Conflicts can arise when multiple agencies are involved, each pursuing different actions. The Navigator takes ownership to identify all involved parties, establish communication between them, and clarify their roles in the person's life. The Navigator influences and leads to overcome obstacles from the agencies involved. They may decide to introduce specific interventions based on setbacks or relationship issues with providers.

Managing interdependencies and relationships is essential during this stage, as it greatly impacts effectiveness. The referred person should understand their journey and perceive progress towards their objective to maintain engagement with the Navigator.

Regular progress checks and measuring tools are utilised, including gathering feedback from the young person on their perception of progress. The Navigator's responsibility is to address the young person's needs by resolving them together, rather than doing it on behalf of the person.

## **6. Enforcement**

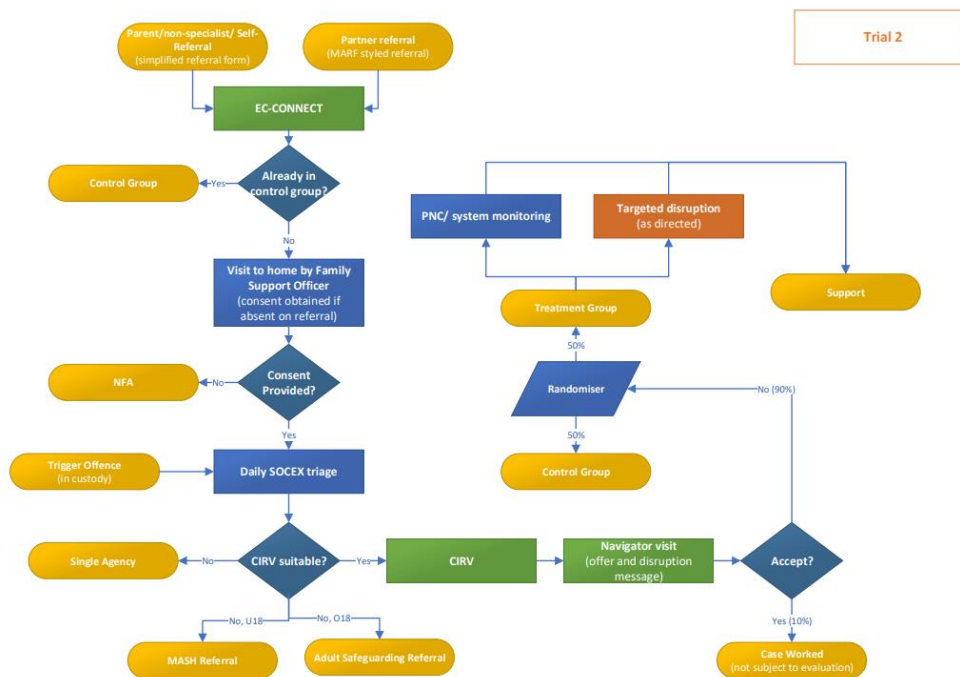
Individuals who are suitable for the CIRV program but choose not to engage will be subjected to disruptive activities. The specific tactics employed will be determined based on the individual's risk level to themselves, others, or the community. The College of Policing's disruption toolkit for serious organised criminality will be used as a resource for selecting appropriate tactics.

The primary goal is always to engage individuals in the program and divert them from violence. CIRV constantly scans for "teachable and reachable moments" in real-time, operating 24/7. If an individual with a CIRV marker on their Police National Computer (PNC) record is arrested anywhere in England or Wales, the arresting officer will contact the on-call CIRV phone number indicated on the PNC marker. An assessment will be conducted, and in most cases, a visit will be arranged with the arrested person during their custody period. A similar process occurs if the person visits an Emergency Department with a suspicious injury or if new intelligence emerges. During the visit, the Navigator outlines an alternative plan for

the young person to escape their circumstances and achieve a positive future. CIRV does not interfere with the criminal justice outcome. The process of visiting during reachable or teachable moments is repeated until engagement is established. It can take months or even years to achieve engagement.

## 7. Exiting the programme

The Navigator will work to then place the referred person into their chosen and identified opportunity as identified by the opportunities finder and confirmed by the referred person. This handover may take some time as the Navigator will ensure that the client is settled and happy before stepping back and it is only when the client is happy that we will do this. Once all parties are content that the transition into the placement is successful the referred person is voluntarily deselected from the programme but will remain supported for as long as required. Times of engaging with the project will vary, but typical periods will be three to six months.



## Providers

The Navigators working with the participants will receive similar training to that of the Police Negotiator including advanced psychological inputs, to help overcome the initially experienced barriers.

## Modes of delivery

High-risk individuals that fit the inclusion criteria will be referred to CIRV directly from the PNC following their involvement in violent (group) offences. The mode of delivery will be predominantly face-to-face, working individually with intervention participants.

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### **Where**

Intervention can occur in a number of places, including the places of multi-agency triage, the participant's home, or community spaces.

### **When and how much**

As the intervention will be tailored to individuals' needs, the exact duration, intensity, and dose of contact will differ. Many will have contact from their navigator at least weekly, while others will be visited during reachable and teachable moments.

### **Tailoring**

The support component will be personalised, based on an individual's unmet need. This will be assessed on an ongoing basis through their work with the navigator.

### **Theory of change**

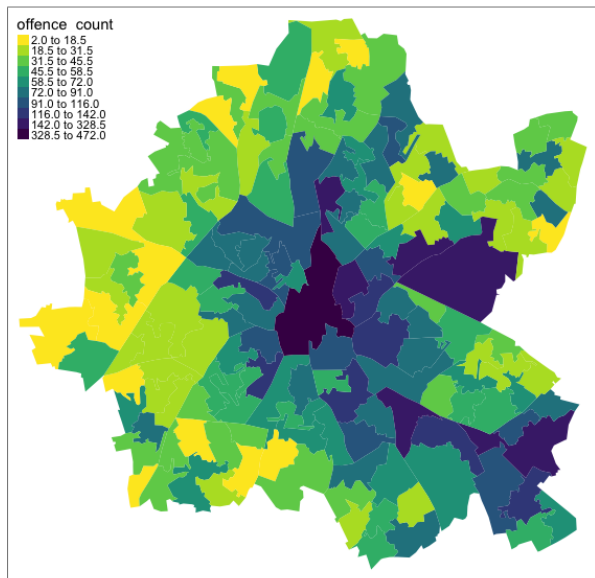
The intervention theory of change is included as Appendix 7.

## 6. Wolverhampton Community Initiative to Reduce Violence (CIRV; high-risk cohort)

### Baseline description of violence in Wolverhampton

The Wolverhampton site covers 158 LSOAs across a single local authority and over 264,000 people across 69 km<sup>2</sup>. Violence in the city is concentrated in the city centre and in the east of the city.

In 2021, there were over 9,500 violent offences in the area, of which around 6,000 were serious violence. This is a rate of around 37 violent or sexual offences per 1,000 population and around 146 violent or sexual offences per square kilometre.



*Count of violent offences, 2021*

### Rationale

The CIRV intervention uses a police-led navigator approach to support people to disengage from violent group and violent behaviour. CIRV is a mechanism for identifying risk, being there when it matters (teachable/reachable moment), sequencing interventions that are more often than not already commissioned, and placing the young person into an actual opportunity. The direction of control is with the police navigator and the approach is primarily designed to engage anyone who is at high-risk of violence and fits the selection criteria, connecting them to an exit pathway from gangs, violence and county lines. When necessary, the approach also coordinates disruptive functions for those who are criminally active, yet fail or refuse to engage.

### Aims

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## **Materials**

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Adults who agree to participate in the intervention will be required to wear a GPS tracking device for the duration of their involvement in the intervention as a show of trust and commitment to the intervention.

## **Procedure**

### **1. Identification**

Individuals who may be eligible for inclusion are identified by CIRV team members who have access to police records.

### **2. Eligibility**

The eligibility criteria are:

#### **(Must tick ALL of List A)**

##### **List A:**

Aged 14years or over

An objective link to a recognised group within the city

Address to be within the ward boundaries of the city

#### **(At least one or more from List B)**

##### **List B:**

Have a violent offence committed (listed as a suspect) within the last 18 months that is non-Domestic Abuse (include violence with injury, homicide, possession of weapons).

Police intelligence linked to Organised Crime Group with a violent threat / sub-threat.

Individuals who fulfil the eligibility criteria will be identified by police and supporting services. Following identification as eligible, CIRV administrators will set up the ECINS profile and add a CIRV PNC marker to their Police National Computer (PNC) record. If that individual is stopped or arrested by police or when they have come to notice of other agencies (e.g. hospitals), the PNC marker will inform police officers accessing the individuals record that they should contact the on-call CIRV navigator immediately using the provided phone numbers. The Navigator will then assess the situation as to whether it is an appropriate opportunity to engage the person and then attempt to gain their consent to receive support. In most cases, a visit will be arranged with the arrested person during their custody period.

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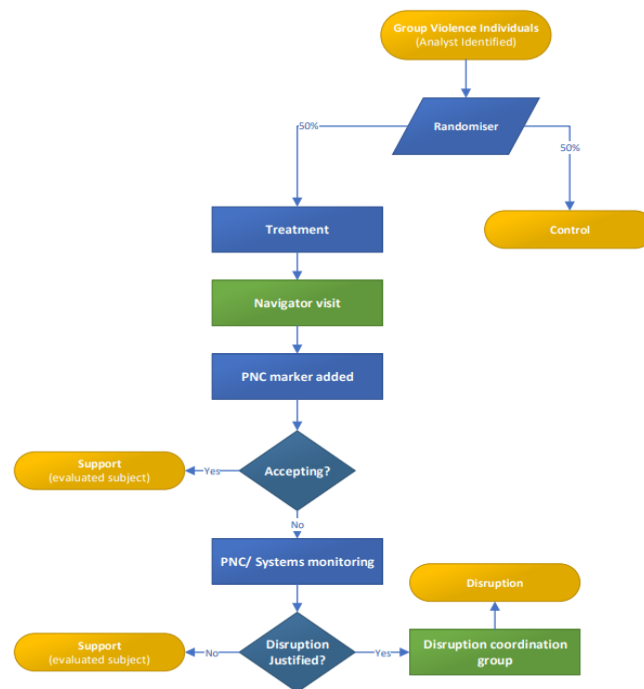
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## Providers

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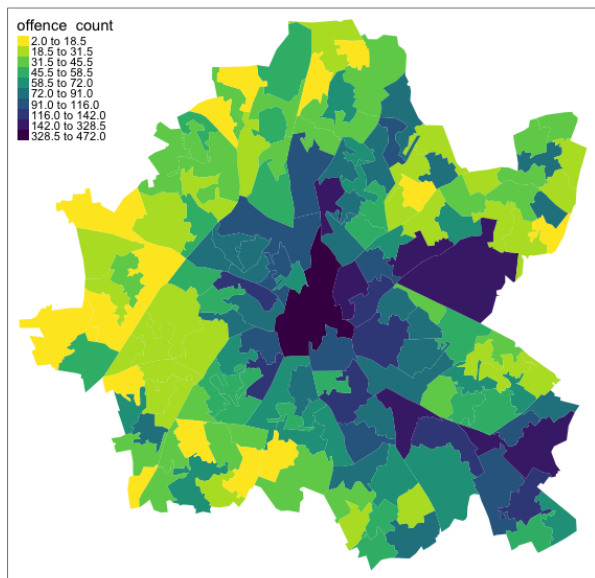
**Theory of change**

The intervention theory of change is included as Appendix 8.

## 7. Wolverhampton Community Initiative to Reduce Violence (CIRV; referral cohort)

### Baseline description of violence in Wolverhampton

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*Count of violent offences, 2021*

### Rationale

The CIRV intervention uses a police-led navigator approach to support people to disengage from violent group and violent behaviour. CIRV is a mechanism for identifying risk, being there when it matters (teachable/reachable moment), sequencing interventions that are more often than not already commissioned, and placing the young person into an actual opportunity. The direction of control is with the police navigator and the approach is primarily designed to engage anyone who is at high-risk of violence and fits the selection criteria, connecting them to an exit pathway from gangs, violence and county lines. When necessary, the approach also coordinates disruptive functions for those who are criminally active, yet fail or refuse to engage.

### Aims

CIRV aims to reduce violence and make communities and individuals safer. It aims to do this by supporting those involved in, or at risk of, violence associated with gang or group involvement, and offering a “way out” of a violent lifestyle.

## **Materials**

All members of the intervention cohort will have a 'CIRV' marker placed on their Police National Computer record which will include details of the CIRV intervention and contact details for a 24hr hotline. Upon receiving a call from a police officer, the CIRV team will respond immediately to a call for CIRV support and seek to engage the individual.

Participants who engage with the intervention will establish a contract (that will not be signed) that outlines in plain English what the intervention seeks to achieve and what would constitute enforcement action etc. This will be in a variety of languages and adapted for a range of abilities, using an intermediary where required. The CIRV intervention is branded differently and will look and feel very different to what has happened before to ensure police and partners deliver a new message to individuals and groups to what has been communicated previously. This includes, but is not limited to brand, approach, and the fact that CIRV is based in a community setting and involves the community in its delivery by virtue of the voluntary sector partner.

Adults who agree to participate in the intervention will be required to wear a GPS tracking device for the duration of their involvement in the intervention as a show of trust and commitment to the intervention.

## **Procedure**

### **1. Identification**

An electronic CIRV referral form is available to any person via the CIRV website ([www.cirv.co.uk](http://www.cirv.co.uk)). Referrals can also be made by individuals themselves.

The forms are very simple and only take a few minutes to complete. Basic details of the referrer are required, a summary of the concerns, an indication that the person is willing to engage in the programme or that there is parental consent in the case of a juvenile.

Contact details of the referred person and/or parent are required so that the referral can be followed up by CIRV team members. Once the form is submitted, the referrer will receive an automated reference number confirming successful application and this can then be used to make any subsequent enquiries with the CIRV team. Self-referrals can also be made via the CIRV Helpline which is staffed during 24/7.

### **2. Eligibility**

Individuals who fulfil the eligibility criteria will be identified by police and supporting services. Following identification as eligible, CIRV administrators will set up the ECINS profile and add a CIRV PNC marker to their Police National Computer (PNC) record. If that individual is stopped or arrested by police or when they have come to notice of other agencies (e.g. hospitals), the PNC marker will inform police officers accessing the individuals record that they should contact the on-call CIRV navigator immediately using the provided phone numbers. The Navigator will then assess the situation as to whether it is an appropriate opportunity to engage the person and then attempt to gain their consent to receive support. In most cases, a visit will be arranged with the arrested person during their custody period.

Eligibility criteria are:

**(Must have at least one of List A)**

**List A:**

**Source: Police**

Evidence involvement in violence / exploitation

Missing episode(s)

Arrest for a trigger offence in last 12 months (PWITS, Weapon possession, any gang linked offence)

OCG linked or mapped nominal (or would be identified if mapping took place)

NRM pending or in place

At risk of Criminal Exploitation

**Source: Social Care / EH**

Known to SC / EH

Did not meet SC / EH threshold

Refused to engage / declined offer

Looked After Child

**Source: Health**

Poor engagement with universal health offer

Presentation with injury with requisite suspicion

**Source: Schools**

At risk of exclusion (PX)

Attends AP / PRU

Otherwise NEET

SEN

**Source: YOS / Probation**

Under YOS management / Probation management

Individual or sibling under YOS / Probation management

On licence / YO

**Source: Referral form / Family Visit**

Evidence of / at risk exploitation

Evidence of familial issues / unstable home environment / criminality

Sibling or immediate family member linked to gangs / exploitation

**General Considerations**

Unexplained wealth / possessions

Association with criminal peers

Lives or associates in a known gang hotspot

**(Must meet all criteria in List B)**

**List B:**

Gang / Group linked and/or linked to controlled drug supply

Must live the city or within 1 hour travelling distance (if moved out of city)

**(Must have none of List C)**

**List C:**

Under 14

Acute mental health issues requiring specialist intervention

Issue can be appropriately managed by single agency only

Statutory agency specifically requests no CIRV involvement as it may conflict / add no value to existing offer of support

**Immediate eligibility**

Any individual in custody for a trigger offence (PWITS, knife offence or assault) where there is a clear link to gangs or groups in that locality

Any individual present at, or directly connected to, any incident of serious violence in that locality

**3. Case review and contact preparation**

Navigators will draw together multi-agency partner data on eligible individuals in order to develop a contact strategy designed to maximise individual engagement in the programme.

**4. Contact and initial engagement**

The Navigator's primary job is to establish a relationship with the referred person through swift and effective action, proving reliability and support. The Navigator clarifies their role as a Police Officer and works with the referred person to help them make their own decisions. The Navigator presents choices and options to the referred person about their potential routes away from violence and describes the CIRV support offer.

The Outcome Star assessment tool is introduced within the first three appointments to monitor progress. The Navigator arranges a meeting with a specialist careers advisor and opportunities finder to identify the person's desired objectives and direction.

The Opportunities Finder seeks out actual job or opportunity options aligned with the person's aspirations, leveraging local businesses for support. The referred person and Navigator then collaborate on necessary steps to become ready for the identified job or opportunity. The objective pursued is determined by the young person themselves, ensuring personal ownership and motivation.

The wearing of a GPS tracker is mandatory for all adults receiving support, for at least the first month of engagement, following which continued use should be agreed with a

supervisor who will consider level of engagement and risk. Under rare circumstances, this can be by-passed if agreed by a CIRV Sergeant and the Deputy CIRV Manager. Wearing of the is optional for youths but should be encouraged, particularly for those higher risk cases.

## **5. Services and community support**

CIRV plays a crucial role in sequencing interventions and ensuring they align with the set objective for the referred person.

Conflicts can arise when multiple agencies are involved, each pursuing different actions. The Navigator takes ownership to identify all involved parties, establish communication between them, and clarify their roles in the person's life. The Navigator influences and leads to overcome obstacles from the agencies involved. They may decide to introduce specific interventions based on setbacks or relationship issues with providers.

Managing interdependencies and relationships is essential during this stage, as it greatly impacts effectiveness. The referred person should understand their journey and perceive progress towards their objective to maintain engagement with the Navigator.

Regular progress checks and measuring tools are utilised, including gathering feedback from the young person on their perception of progress. The Navigator's responsibility is to address the young person's needs by resolving them together, rather than doing it on behalf of the person.

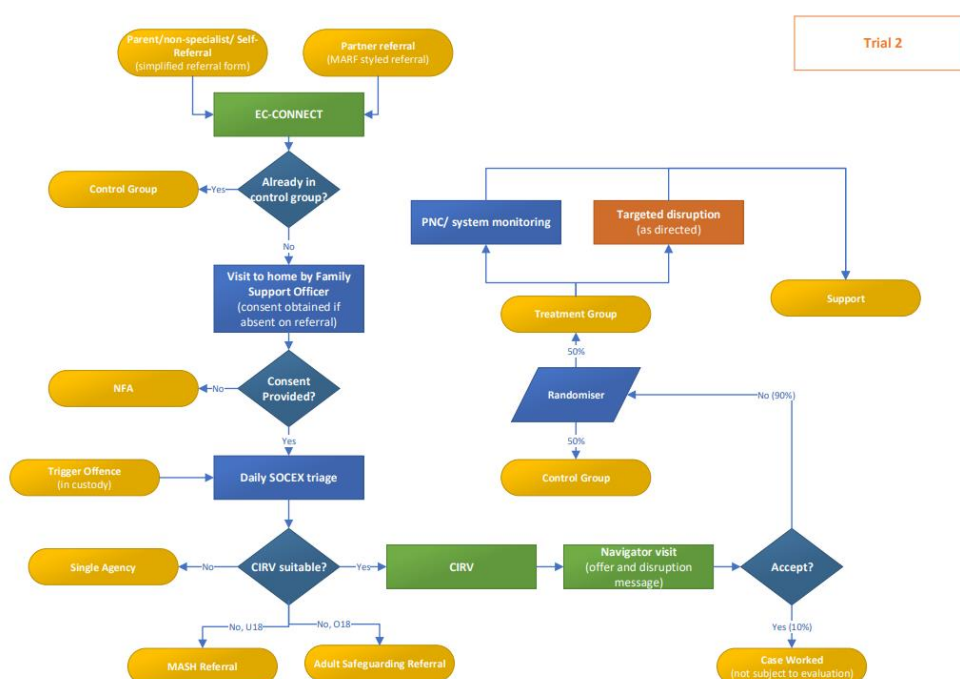
## **6. Disruption**

Individuals who are suitable for the CIRV program but choose not to engage will be subjected to disruptive activities. The specific tactics employed will be determined based on the individual's risk level to themselves, others, or the community. The College of Policing's disruption toolkit for serious organised criminality will be used as a resource for selecting appropriate tactics.

The primary goal is always to engage individuals in the program and divert them from violence. CIRV constantly scans for "teachable and reachable moments" in real-time, operating 24/7. If an individual with a CIRV marker on their Police National Computer (PNC) record is arrested anywhere in England or Wales, the arresting officer will contact the on-call CIRV phone number indicated on the PNC marker. An assessment will be conducted, and in most cases, a visit will be arranged with the arrested person during their custody period. A similar process occurs if the person visits an Emergency Department with a suspicious injury or if new intelligence emerges. During the visit, the Navigator outlines an alternative plan for the young person to escape their circumstances and achieve a positive future. CIRV does not interfere with the criminal justice outcome. The process of visiting during reachable or teachable moments is repeated until engagement is established. It can take months or even years to achieve engagement.

## 7. Exiting the programme

The Navigator will work to then place the referred person into their chosen and identified opportunity as identified by the opportunities finder and confirmed by the referred person. This handover may take some time as the Navigator will ensure that the client is settled and happy before stepping back and it is only when the client is happy that we will do this. Once all parties are content that the transition into the placement is successful, the referred person is voluntarily deselected from the programme but will remain supported for as long as is required. Times of engaging with the project will vary, but typical periods will be three to six months.



## Providers

The Navigators working with the participants will receive similar training to that of the Police Negotiator including advanced psychological inputs, to help overcome the initially experienced barriers.

## Modes of delivery

High-risk individuals that fit the inclusion criteria will be referred to CIRV directly from the PNC following their involvement in violent (group) offences. The mode of delivery will be predominantly face-to-face, working individually with intervention participants.

Many of the individuals concerned will be case managed and have contact from their navigator at least weekly, and many others will be visited during reachable and teachable moments. Thus, those involved in gangs and group disputes will have the following contacts with the intervention:



- In a teachable moment before referral
- In a teachable moment when already accepted by intervention
- Via their navigator during regular, planned contact
- Via a call-in after an incident of serious violence from a disruption officer
- During a disruption interaction due to crime participation and non-engagement

As indicated in the above list, the planned communication method and style is both targeted and specific to the audience it is trying to reach.

### **Where**

Intervention can occur in a number of places, including the places of multi-agency triage, the participant's home, or community spaces.

### **When and how much**

As the intervention will be tailored to individuals' needs, the exact duration, intensity, and dose of contact will differ. Many will have contact from their navigator at least weekly, while others will be visited during reachable and teachable moments.

### **Tailoring**

The support component will be personalised, based on an individual's unmet need. This will be assessed on an ongoing basis through their work with the navigator.

### **Theory of change**

The intervention theory of change is included as Appendix 9.

### **Incentives or restrictions**

In all trials, there are no financial incentives to be in either arm of the trial for participants from a research or delivery perspective. Individuals in the control group will be prevented from receiving the intervention for the duration of the trial and will have access to all statutory services available to individuals not involved in the trial. As a component of the formative evaluation, participants in the intervention group will be offered incentives to participate in interviews about their experience of the programme, but this offer will be independent of their participation in or engagement with the programme.

### **Delivery periods**

Intervention delivery will begin between 15<sup>th</sup> May 2023 and 1<sup>st</sup> July 2023 and will run for 24 months.

### **Assignment of intervention providers**

Intervention providers were largely separate, but statutory service providers may have interacted with individuals in either arm of the trial. For example, police officers delivering intervention-related messaging and disruption activity may also be involved in disruption activity of individuals in the control group. However, they will only know individuals who are in the intervention group and will not be aware of the control or non-participatory status of other individuals.

## Impact evaluation

### Research questions or study objectives

#### Summative evaluation questions (SEQ):

SEQ1: What is the difference in the number of violence against the person offences attributed to individuals at risk of involvement in violence aged 14 to 40 years receiving the focused deterrence intervention, compared to similar individuals receiving business as usual support? [relates to primary outcome for the study]

SEQ2: What is the difference in the time to a violence against the person offence (in days) attributed to individuals at risk of involvement in violence aged 14 to 40 years receiving the intervention in comparison to those of similar individuals receiving business as usual support? [relates to secondary outcome]

SEQ3: What is the difference in the number of co-offending crimes (i.e. crimes involving two or more perpetrators) attributed to individuals at risk of involvement in violence aged 14 to 40 years receiving the intervention in comparison to those of similar individuals receiving business as usual? [relates to secondary outcome]

#### Formative evaluation questions

FEQ 1: To what extent were the three components of the intervention delivered?

FEQ 2: How did inputs contribute to the intervention functioning?

FEQ 3: Who did the intervention work for and how?

FEQ 4: How did local context affect intervention delivery?

FEQ 5: To what extent was the intervention delivered as intended?

FEQ 6: How did complexity affect intervention delivery?

FEQ 7: How did proximal outcomes change?

FEQ 8: Why did proximal outcomes change?

FEQ 9: What was learned from how the intervention was delivered?

### Design

Table 2: Trial design

Trial design, including number of arms	<i>Multi-centred two-arm randomised controlled trial</i>
Unit of randomisation	<i>Individual, stratified by offending history</i>
Stratification variables (if applicable)	<i>Number of offences in past two years (tertiles) Under / over 18: binary variable. Necessary for some sites with a mixed population</i>
Primary outcome variable	<i>Perpetration of violent crime in 12 months following randomisation</i>

	measure (instrument, scale, source)	<i>N violence against the person offences in Police National Computer attributed to an individual within 12 months of randomisation</i>
Baseline for primary outcome	variable	<i>Perpetration of violent crime in 12 months prior to randomisation</i>
	measure (instrument, scale, source)	<i>N violence against the person offences in Police National Computer attributed to an individual within a one-year period prior to randomisation</i>
Secondary outcome(s)	variable(s)	<i>Involvement in co-offending in 12 months following randomisation</i>
	measure(s) (instrument, scale, source)	<i>N crimes in Police National Computer attributed to an individual and one or more co-offenders within one year of randomisation</i>
Baseline for secondary outcome	variable	<i>Involvement in group offending in 12 months prior to randomisation</i>
	measure (instrument, scale, source)	<i>N crimes attributed to an individual and one or more co-offenders in 12 months prior to randomisation</i>
Secondary outcome(s)	variable	<i>time-to-offence</i>
	measure (instrument, scale, source)	<i>time in days between randomisation and first violent offence</i>
Baseline for secondary outcome	variable	<i>Perpetration of violent crime in 12 months prior to randomisation</i>
	measure (instrument, scale, source)	<i>N violence against the person offences within a one-year period prior to randomisation</i>

## Randomisation

Eligible individuals will be randomised to treatment or control conditions stratified based on an ordinal indicator of offending and randomisation will be within site. Stratification based on offending history will be undertaken to ensure a balance in the frequency of offending in each trial arm.

From the first cohort of eligible individuals, tertiles of offence counts will be established for each site. For example, the first tertile might include all individuals who have between 1 and

5 offences attributed to them, the second might include anyone with 6 to 8 offences and the third group might include anyone with 9 or more offences in the past two years. This method was chosen because it is transferrable across jurisdictions, it is easily accessible to analysts and the data generating process is relatively consistent across areas.

We will also built into the randomisation process another stratification variable for whether a case is adult or child (over or under 18 years) – as all sites expect a mix of such cases (noting that the minimum age is 14 years). Strata help to reduce differences between treatment and control groups, so omitting them increases between-group differences at baseline and a subsequent loss of power ([Kahan and Morris, 2012](#)).

Initial randomisation will be undertaken by the evaluation team through a stratified randomisation of a list of eligible individuals provided by the delivery team. The evaluation team will use offending frequency tertile (high, medium, low) and a binary variable for whether under 18 or not (yes/no) to create randomisation strata. Randomisation will then be done within each of these strata, with equal allocation to treatment and control within each strata. They will return this information to the delivery team. Following this initial randomisation process, further randomisation will be undertaken on a case by case basis by the evaluation team using a dedicated randomisation platform that will record the individual's unique ID, the site, their tertile of offending frequency, whether they are a child (under 18) at the time of randomisation, and the treatment allocation. Records of treatment allocation will be accessible to the delivery team for the duration of the trial and will be accessible to the evaluation team for the duration of data retention (trial duration plus 10 years).

Random allocation of cases will be completed using the 'randomizr' package ([Coppock, 2023](#)) for R v4.0.4 ([R Core Team, 2021](#)). Sample code is recreated in Appendix 3.

## **Control or comparison conditions**

In all trials, individuals in the control group will receive business as usual (BAU) for their city in terms of policing and access to statutory or community support provision. This will differ across each site and key element of the IPE will be to capture information on what business as usual looks like in practice. We will also monitor BAU to track possible contamination and 'John Henry' effects (where there is reactive adaptation of control conditions; [Ariel et al., 2022](#)).

## **Participants**

### *Summative evaluation*

Each site has a strict set of inclusion/exclusion criteria for eligibility for intervention participation (see descriptions of the interventions above). All eligible individuals will be randomised into treatment or control groups.

Intervention delivery will be undertaken across a number of settings. Initial contact will be in person, or via letter or telephone. Initial meetings are likely to take place in the home of individuals in the intervention condition but could take place in community settings or in the

offices of statutory services or intervention partners. Follow-up meetings will take place via telephone, in the home of individuals in the intervention condition but could take place in community settings or in the offices of statutory services or intervention partners.

#### *Formative evaluation*

The evaluators will directly engage only with those individuals in the (1) treatment group, and to an extent with (2) the intervention team and (3) stakeholders. This will be done through interviews with all three groups, surveys with intervention participants, and observations with groups 1 and 2. Although participation in research will aim to be offered to all individuals, sampling for all three methods will likely end up being convenience sampling, due to the high attrition rate. As the purpose of this component of the formative evaluation does not seek to be representative of the level of participant engagement, the validity of the results is not susceptible to the inevitable attrition bias that will occur. Nonetheless, we will seek to describe why individuals engaged with the programme and why individuals did not or disengaged after initial engagement. We will use a variety of sampling methods to attract respondents from these different groups including the offer of voucher payments and/or inclusion in prize draws.

#### **Participant flows**

This project consists of seven trials in different locations, so participant flows are described separately below.

## PICO statements

The following section summarises each trial in terms of Population, Intervention, Comparison and Outcome (PICO) criteria. Interventions have been described in more detail in the TiDieR statements above.

### Leicester PICO

**Design:** Two-armed stratified randomised controlled trial, with individuals as the unit of allocation and analysis.

**Sample size:** Minimum of 247 with potential for an additional 200 depending on intervention uptake and engagement, 'aging-in' and emergence of offending and maturation of selection process.

**Population:** an eligible individual needs to be a member or associate of a group who are involved in committing serious violence or who are engaged in activities which drive the local serious violence problem, such as drug supply. They must also meet one of the following criteria: in the past two years, they have been either arrested for or suspected of committing serious violence; or arrested for or suspected of committing offences involving a weapon or possession of a weapon; or be flagged as a habitual knife carrier; or be arrested for or suspected of drug offences.

**Intervention:** Individuals identified as potentially eligible will be identified through a review of police data and intelligence. Eligibility will be assessed against the criteria described in Population. A multiagency case review will be undertaken and a bespoke contact strategy will be developed. Initial contact with an eligible individual by a team member will seek to establish a trusting relationship and to present the programme support offer in tandem with the potential for targeted enforcement activity for non-engagement and continued involvement in violence. For those individuals engaging with the programme, a bespoke support will be developed and their progress monitored and programme adjusted over approximately six months. Failure to engage and continued involvement in violence will result in referral for enforcement and disruption activity. Successful engagement with the programme will last approximately six months.

**Comparison:** All cases will be randomly allocated to one of two conditions, treatment or control upon being identified as meeting the study selection criteria and prior to any contact with the intervention. Cases will be stratified by 'offending frequency' and adult/child status to allow a balance of case complexity and attrition across the two study arms.

**Outcome:** Primary outcome is perpetration of violent crime, measured as the number of violent offences against the person attributed to the individual within one year of randomisation. Secondary outcomes are involvement in group offending, which will be measured as the number of crimes attributed to the individual and one (or more) co-

offenders within one year of randomisation and time to offence, which is the number of days from randomisation to offence (right-censored if there is no offence).

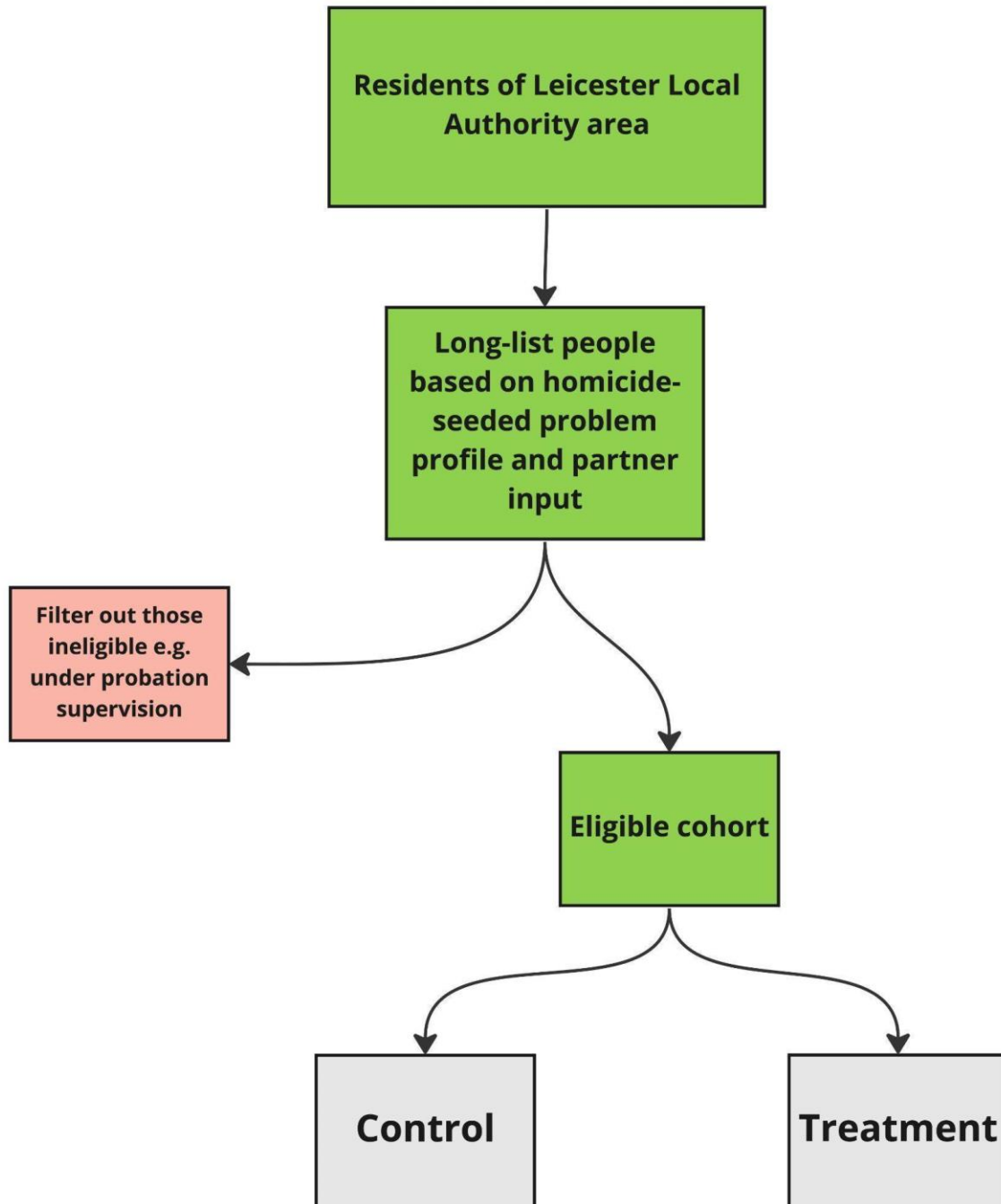


Figure 1. Leicester Phoenix Programme trial pathway



## Manchester PICO

**Design:** Two-armed stratified randomised controlled trial, with individuals as the unit of allocation and analysis.

**Sample size:** 219 with potential for an additional 100 depending on uptake and staff capacity accessed through individuals becoming eligible based on their age, emergence of eligibility through offending and maturation of referral process such as a more efficient identification or information sharing process.

**Population:** An individual aged between 14 and 25 years, who has been connected to a homicide or near-miss violent offence with a group violence component committed in the past two years or who committed a non-domestic abuse flagged violent offence in the past two years. The individuals also need to reside in Manchester or North Trafford.

**Intervention:** Individuals identified as potentially eligible will be identified through a review of police data and intelligence. Eligibility will be assessed against the criteria described in Population. A multiagency case review will be undertaken and a bespoke contact strategy will be developed. Initial contact with an eligible individual by a team member will seek to establish a trusting relationship and to present the programme support offer in tandem with the potential for targeted enforcement activity for non-engagement and continued involvement in violence. For those individuals engaging with the programme, a bespoke support will be developed and their progress monitored and programme adjusted over approximately six months. Failure to engage and continued involvement in violence will result in referral for enforcement and disruption activity. Successful engagement with the programme will last approximately eight months.

**Comparison:** All cases will be randomly allocated to one of two conditions, treatment or control upon being identified as meeting the study selection criteria and prior to any contact with the intervention. Cases will be stratified by 'offending frequency' to allow a balance of case complexity and attrition across the two study arms.

**Outcome:** Primary outcome is perpetration of violent crime, measured as the number of violent offences against the person attributed to the individual within one year of randomisation. Secondary outcome is involvement in group offending, which will be measured as the number of crimes attributed to the individual and one (or more) co-offenders within one year of randomisation.

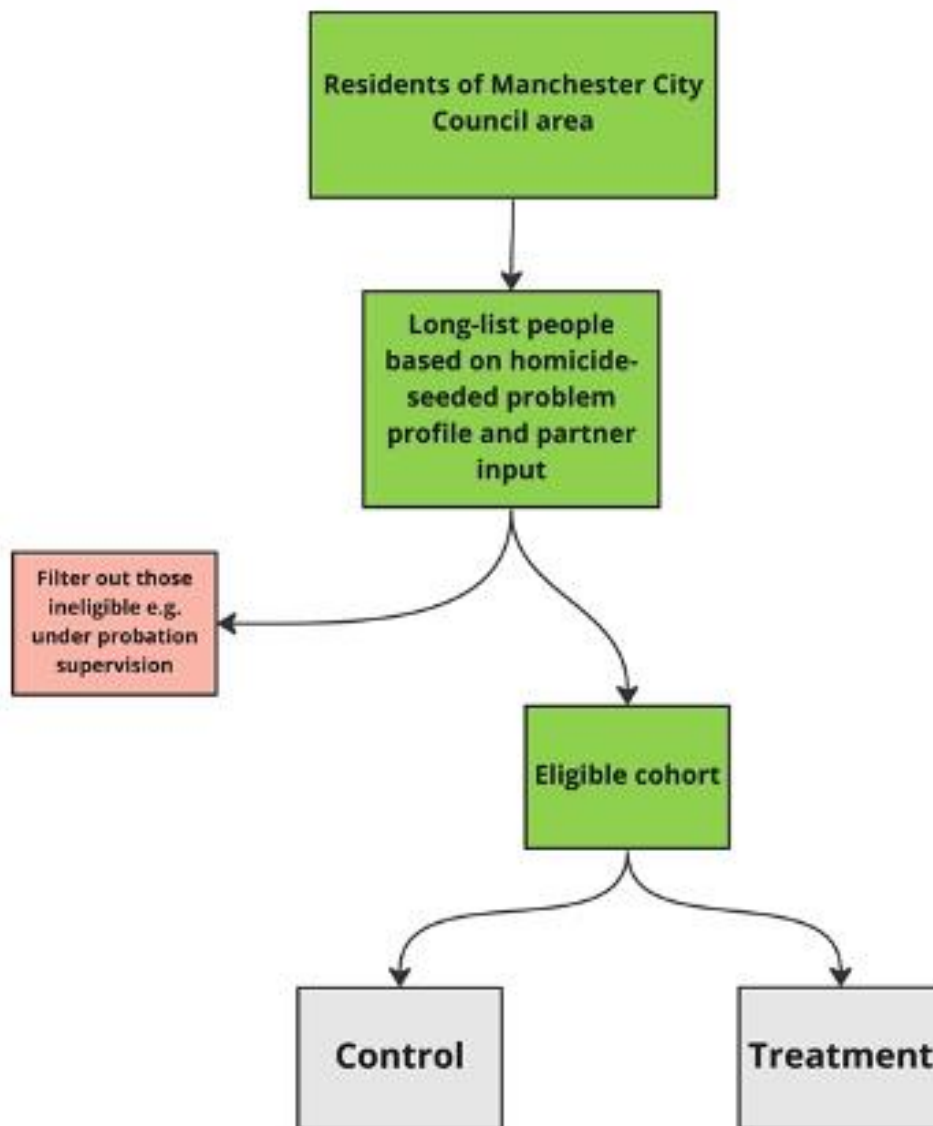


Figure 2. Manchester Another Chance trial pathway

## Nottingham PICO

**Design:** Two-armed stratified randomised controlled trial, with individuals as the unit of allocation and analysis.

**Sample size:** Approximately 450 with potential for an additional 100 depending on uptake and staff capacity accessed through individuals becoming eligible based on their age and emergence of eligibility and maturation of selection process.

**Population:** Individuals aged between 14 and 24 years, who reside within the Nottingham City boundary or have group bonds to the area. They also must have been arrested for a violent or weapons offence in previous 12 months, or for an offence that involved three or more perpetrators.

**Intervention:** Individuals identified as potentially eligible will be identified through a review of police data and intelligence. Eligibility will be assessed against the criteria described in Population. A multiagency case review will be undertaken and a bespoke contact strategy will be developed. Initial contact with an eligible individual by a team member will seek to establish a trusting relationship and to present the programme support offer in tandem with the potential for targeted enforcement activity for non-engagement and continued involvement in violence. For those individuals engaging with the programme, a bespoke support will be developed and their progress monitored and programme adjusted over approximately six months. Failure to engage and continued involvement in violence will result in referral for enforcement and disruption activity. Successful engagement with the programme will last approximately six months.

**Comparison:** All cases will be randomly allocated to one of two conditions, treatment or control upon being identified as meeting the study selection criteria and prior to any contact with the intervention. Cases will be stratified by 'offending frequency' to allow a balance of case complexity and attrition across the two study arms.

**Outcome:** Primary outcome is perpetration of violent crime, measured as the number of violent offences against the person attributed to the individual within one year of randomisation. Secondary outcome is involvement in group offending, which will be measured as the number of crimes attributed to the individual and one (or more) co-offenders within one year of randomisation.

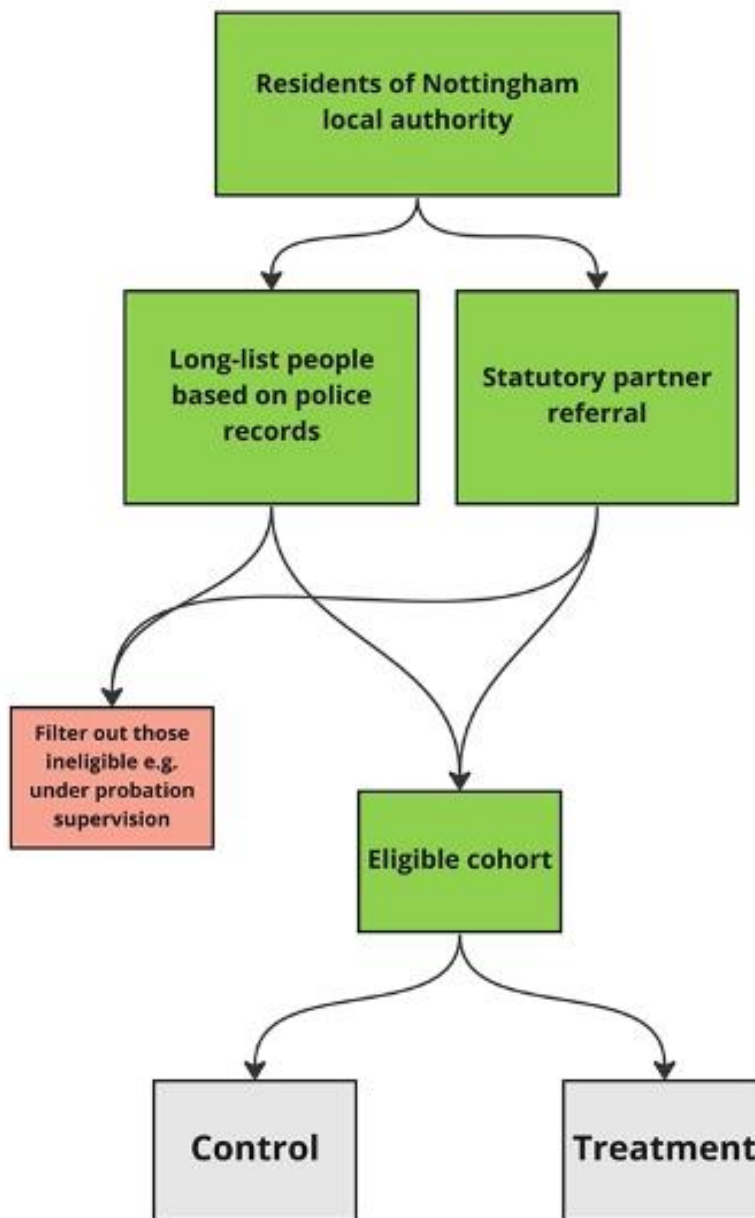


Figure 3. Nottingham Another Way intervention trial pathway

## Coventry 'high risk' cohort PICO

**Design:** Two-armed stratified randomised controlled trial, with individuals as the unit of allocation and analysis.

**Sample size:** Approximately 400 with potential for an additional 100 accessed through a 'refreshing' of the pool of eligible individuals (50 per refresh at months 7, 13 and 19).

**Population:** An eligible individual needs to be aged 14 years or over, have an objective link to a recognised group within Coventry, have an address within the ward boundaries of Coventry, and either have a violent offence committed (or listed as a suspect) within the last 18 months that is non-domestic abuse (but includes violence with injury, homicide, possession of weapons) or be linked to an Organised Crime Group with a violent threat/sub-threat in police intelligence logs.

**Intervention:** Potentially eligible individuals will be identified through a review of police data and intelligence. Individuals identified as meeting the trial selection criteria will have a marker placed on their Police National Computer record and be subject to routine police disruption of violent activities. CIRV will monitor this cohort for teachable and reachable (e.g. arrest, hospital admission, etc.) moments via the systems monitoring and will respond to these opportunities through a 24-hour on-call service and offer CIRV support to desist from violence in tandem with the potential for target enforcement activity for non-engagement and continued involvement in violence. For those individuals engaging with the programme, a bespoke support will be developed and their progress monitored and programme adjusted over approximately six months. Failure to engage and continued involvement in violence will result in referral for enforcement and disruption activity. Successful engagement with the programme will last approximately six months.

**Comparison:** All cases will be randomly allocated to one of two conditions, treatment or control upon being identified as meeting the study selection criteria and prior to any contact with the intervention.

**Outcome:** Primary outcome is perpetration of violent crime, measured as the number of violent offences against the person attributed to the individual within one year of randomisation. Secondary outcome is involvement in group offending, which will be measured as the number of crimes attributed to the individual and one (or more) co-offenders within one year of randomisation.

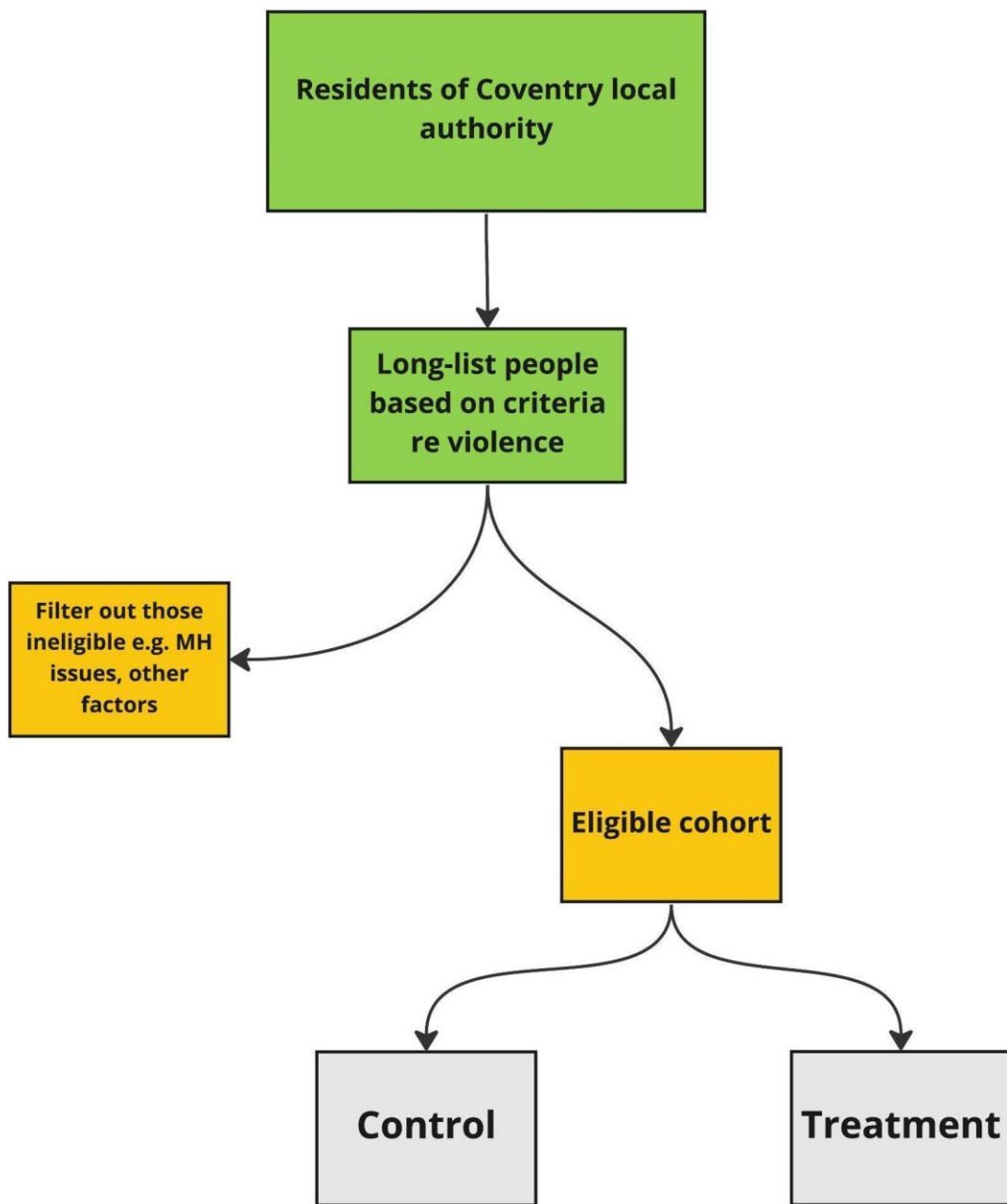


Figure 4. Coventry CIRV high-risk cohort trial pathway

## Coventry referral cohort PICO

**Design:** Two-armed stratified randomised controlled trial, with individuals as the unit of allocation and analysis.

**Sample size:** 400 with potential for an additional 200 depending on uptake and staff capacity accessed through individuals becoming eligible based on their age and emergence of eligibility and maturation of referral process.

**Population:** The main criteria for the population of interest is a gang/group link or being at risk of criminal exploitation. The eligible individual further must have an unmet need and must live in the city or within one hour from it (if moved). The remaining criteria slightly differs based on the referral agency but includes, for example, evidence of involvement in violence/exploitation; arrest for a trigger offence; an OCG link; association with criminal peers or in a known gang spot; being known to social care; being a looked-after child; being presented with injury with requisite suspicion; being at risk of school exclusion; being under probation or on licence; or showing evidence of unstable home environment/criminality.

The trial population is those who have opted out of the intervention once having been referred, identified as eligible and offered the intervention.

**Intervention:** An individual can be referred to the intervention through a variety of pathways (i.e., statutory services, the police, family/friends, self-referral) and then their eligibility for the programme is assessed. A case review will be undertaken and a bespoke contact strategy will be developed. Initial contact with an eligible individual by a team member will seek to establish a trusting relationship and to present the programme support offer in tandem with the potential for targeted enforcement activity for non-engagement and continued involvement in violence. For those individuals engaging with the programme, including agreement to wear a GPS tag, a bespoke support will be developed and their progress monitored and programme adjusted over approximately six months. Failure to engage and continued involvement in violence will result in referral for enforcement and disruption activity. Successful engagement with the programme will last approximately six months.

**Comparison:** Following refusal to engage, all cases will be randomly allocated to one of two conditions, treatment or control. Cases will be stratified by 'offending frequency' to allow a balance of case complexity and attrition across the two study arms.

**Outcome:** Primary outcome is perpetration of violent crime, measured as the number of violent offences against the person attributed to the individual within one year of randomisation. Secondary outcome is involvement in group offending, which will be measured as the number of crimes attributed to the individual and one (or more) co-offenders within one year of randomisation.

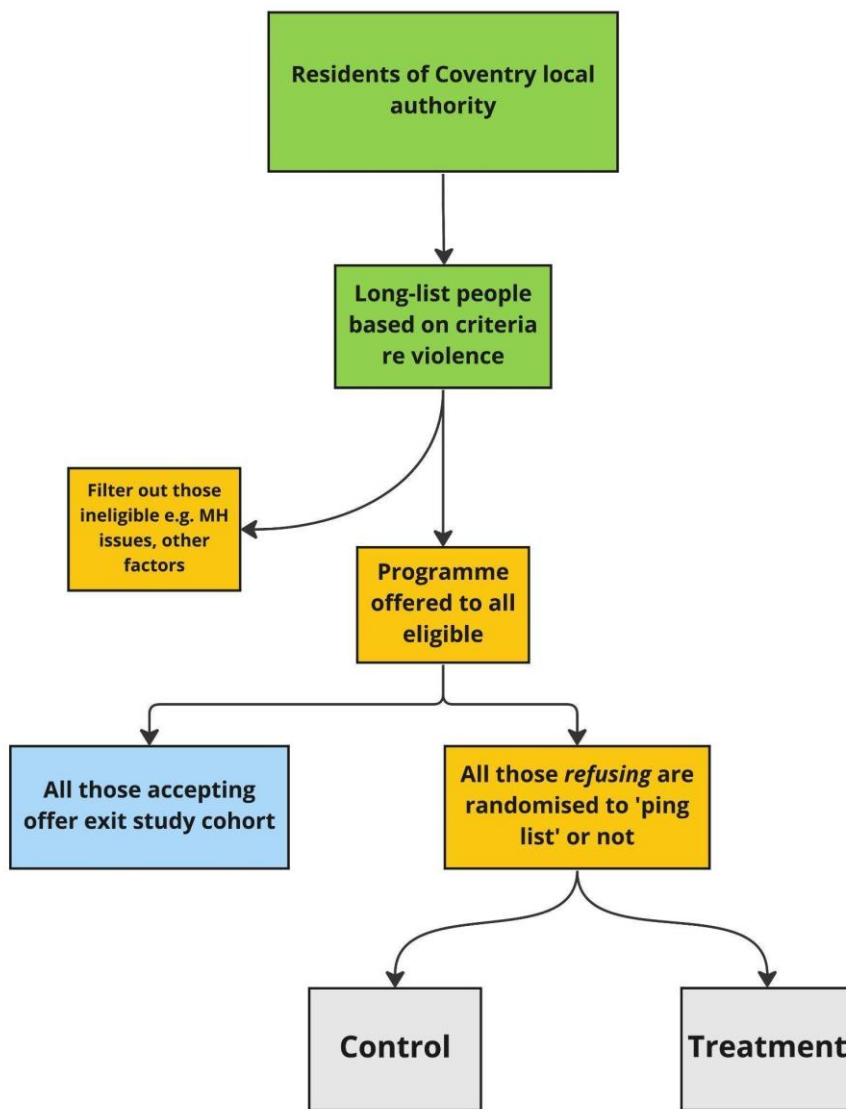


Figure 5. Coventry CIRV referral cohort trial pathway



## Wolverhampton 'high risk' cohort PICO

**Design:** Two-armed stratified randomised controlled trial, with individuals as the unit of allocation and analysis.

**Sample size:** Approximately 400 with potential for an additional 100 accessed through a 'refreshing' of the pool of eligible individuals (50 per refresh at months 7, 13 and 19).

**Population:** An eligible individual needs to be aged 14 years or over, have an objective link to a recognised group within Wolverhampton, have an address within the ward boundaries of the city, and either have a violent offence committed (or listed as a suspect) within the last 18 months that is non-domestic abuse (but includes violence with injury, homicide, possession of weapons) or be linked to an Organised Crime Group with a violent threat/sub-threat in police intelligence logs.

**Intervention:** Potentially eligible individuals will be identified through a review of police data and intelligence. Individuals identified as meeting the trial selection criteria will have a marker placed on their Police National Computer record and be subject to routine police disruption of violent activities. CIRV will monitor this cohort for teachable and reachable (e.g. arrest, hospital admission, etc.) moments via the systems monitoring and will respond to these opportunities through a 24-hour on-call service and offer CIRV support to desist from violence in tandem with the potential for target enforcement activity for non-engagement and continued involvement in violence. For those individuals engaging with the programme, a bespoke support will be developed and their progress monitored and programme adjusted over approximately six months. Failure to engage and continued involvement in violence will result in referral for enforcement and disruption activity. Successful engagement with the programme will last approximately six months.

**Comparison:** All cases will be randomly allocated to one of two conditions, treatment or control upon being identified as meeting the study selection criteria and prior to any contact with the intervention. Cases will be stratified by 'offending frequency' to allow a balance of case complexity and attrition across the two study arms.

**Outcome:** Primary outcome is perpetration of violent crime, measured as the number of violent offences against the person attributed to the individual within one year of randomisation. Secondary outcome is involvement in group offending, which will be measured as the number of crimes attributed to the individual and one (or more) co-offenders within one year of randomisation.

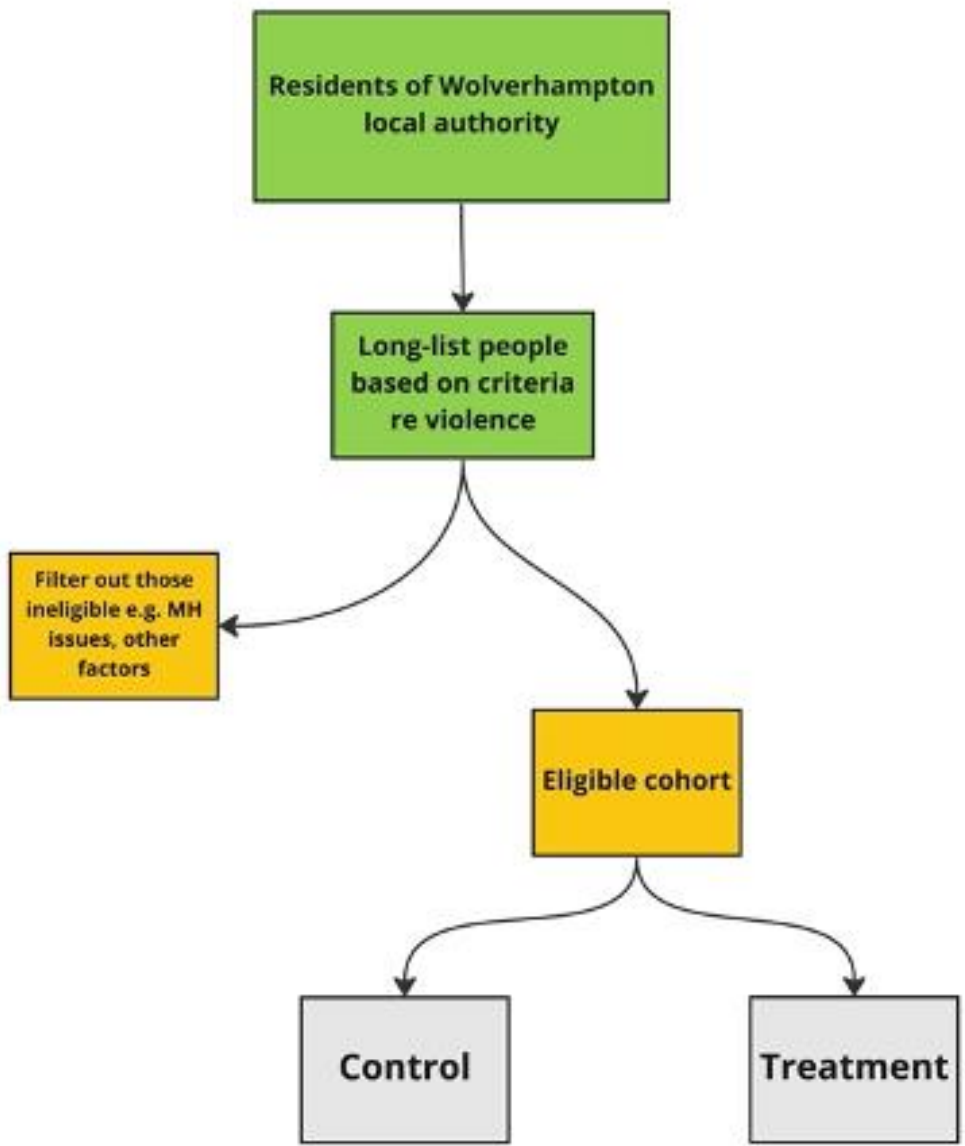


Figure 6. Wolverhampton CIRV high-risk cohort pathway

## Wolverhampton referral cohort PICO

**Design:** Two-armed stratified randomised controlled trial, with individuals as the unit of allocation and analysis.

**Sample size:** 400 with potential for an additional 200 depending on uptake and staff capacity accessed through individuals becoming eligible based on their age and emergence of eligibility and maturation of referral process.

**Population:** The main criteria for the population of interest is a gang/group link or being at risk of criminal exploitation. The eligible individual further must have an unmet need and must live in the city or within one hour from it (if moved). The remaining criteria slightly differs based on the referral agency but includes, for example, evidence of involvement in violence/exploitation; arrest for a trigger offence; an OCG link; association with criminal peers or in a known gang spot; being known to social care; being a looked-after child; being presented with injury with requisite suspicion; being at risk of school exclusion; being under probation or on licence; or showing evidence of unstable home environment/criminality.

The trial population is those who have opted out of the intervention once having been referred, identified as eligible and offered the intervention.

**Intervention:** An individual can be referred to the intervention through a variety of pathways (i.e., statutory services, the police, family/friends, self-referral) and then their eligibility for the programme is assessed. A case review will be undertaken and a bespoke contact strategy will be developed. Initial contact with an eligible individual by a team member will seek to establish a trusting relationship and to present the programme support offer in tandem with the potential for targeted enforcement activity for non-engagement and continued involvement in violence. For those individuals engaging with the programme, including agreement to wear a GPS tag, a bespoke support will be developed and their progress monitored and programme adjusted over approximately six months. Failure to engage and continued involvement in violence will result in referral for enforcement and disruption activity. Successful engagement with the programme will last approximately six months.

**Comparison:** Following refusal to engage, all cases will be randomly allocated to one of two conditions, treatment or control.

**Outcome:** Primary outcome is perpetration of violent crime, measured as the number of violent offences against the person attributed to the individual within one year of randomisation. Secondary outcome is involvement in group offending, which will be measured as the number of crimes attributed to the individual and one (or more) co-offenders within one year of randomisation.

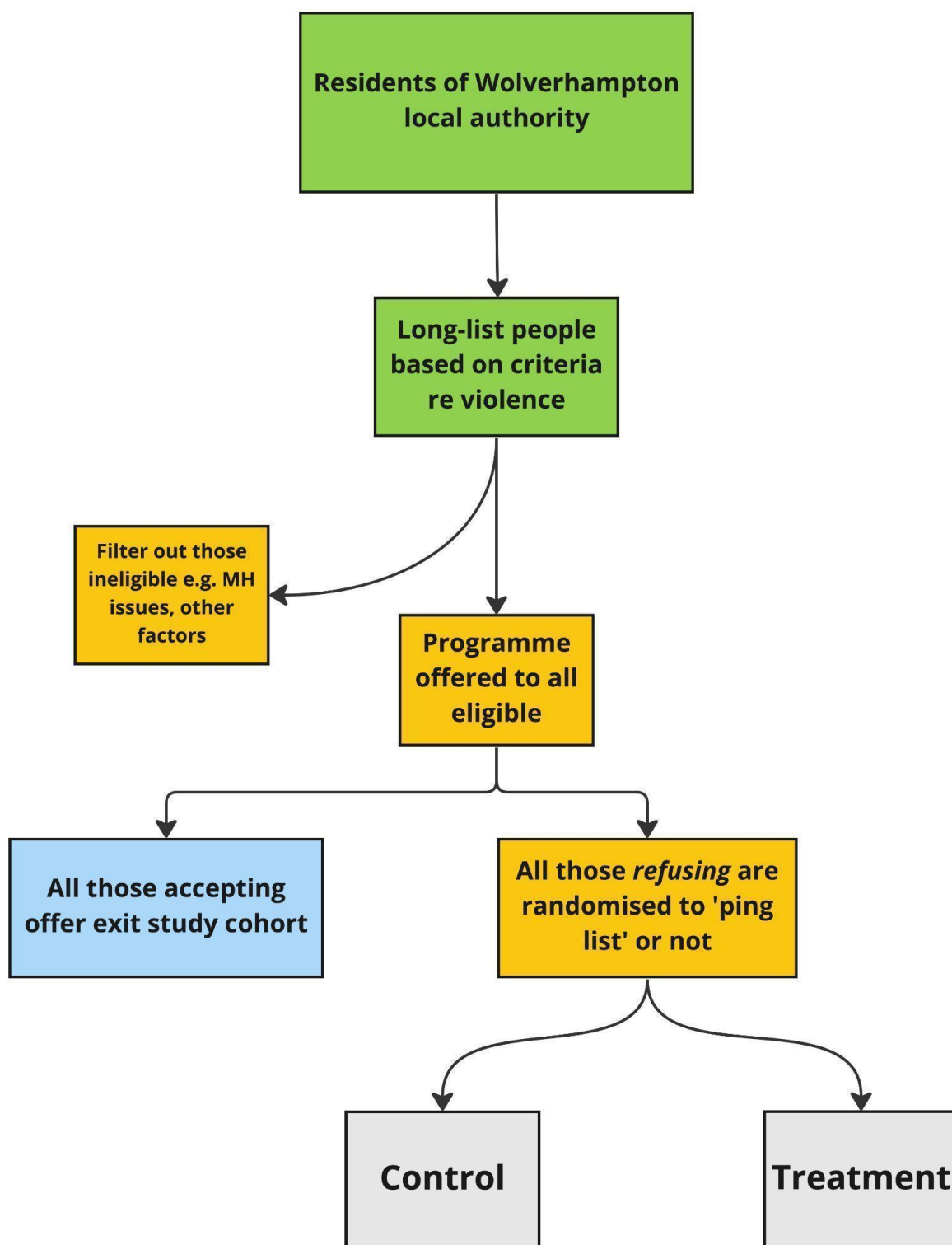


Figure 7. Wolverhampton CIRV referral cohort trial pathway

## Sample size calculations

As part of the preparation phase, the five sites were asked to develop selection/eligibility criteria for the intervention and to then identify the number of these individuals in their population and to describe the number of police-recorded violence against the person offences attributed to them in a twelve month period. This information allowed us to describe the distribution of outcomes and to identify the anticipated number of individuals in the treatment and control groups.

**Table 3. Distribution of eligible sample size and outcomes in each site**

Site	Eligible cohort	Mean outcomes	Variance <sup>2</sup>
Manchester	219	0.54	1.14
Nottingham	450	0.96	1.51
Leicester	247	0.85	1.9
Wolverhampton	400		
Coventry	400		

It is important to put the effect of interventions on violence reduction into context. The most promising intervention in the YEF Toolkit ([Youth Endowment Fund, 2023](#)) is [Cognitive Behavioural Therapy](#). As no anticipated effect size was available, estimates of the population average treatment effect have been set based on comparison to the existing violence prevention literature. The only systematic review featured in the technical review ([Gaffney, Farrington and White, 2021b](#)) that focuses on violent offending outcomes indicates that CBT interventions are associated with a 25% reduction relative to controls. In a broader context, the most extensive, albeit inadvertent, violence intervention of recent times, the COVID lockdowns, were associated with approximately 40% reduction in homicide of people aged 24 years and below ([ONS, 2023](#)). As the focused deterrence literature is largely based on population-level treatment effects, there are no comparable treatment effects at the individual level for focused deterrence. However, a recent RCT of an employment and skills intervention that is similar in nature to the ‘support’ component of the planned ACF1 interventions found a difference of 0.03 standard deviations between the treatment and control groups. With a sample size of 2,456, this was not statistically significant ([Bhatt, Heller, Kapustin, Bertrand & Blattman, 2023](#)).

We used effects of 10%, 20%, 30% and 40% relative reductions in police-recorded violence against the person to calculate the required sample size to achieve an 80% chance of detecting a statistically significant effect, if one exists. Although these effect sizes are

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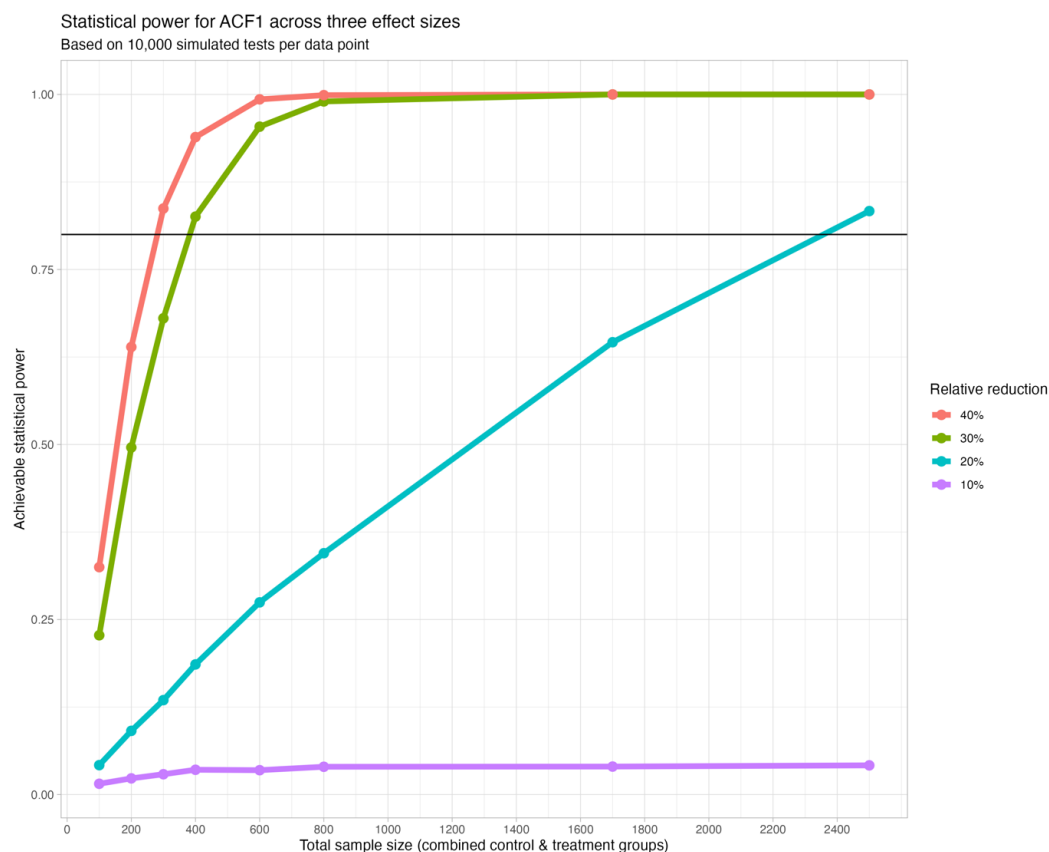
<sup>2</sup> The observation that the variance is larger than the mean in all cases is the supporting evidence for using negative binomial regression to model the treatment effects.

ambitious, they are consistent with the goals of Youth Endowment Fund to only support cost-effective interventions. The YEF Security Padlock, based on the EEF toolkit (which in turn is based on Cohen (1988)) sets minimum detectable effect size at Cohen  $d= 0.2$ . Cohen’s  $d$  is not suitable for use with overdispersed count-distributed outcomes, but based on the distribution of the outcome, a 20% relative reduction approximately corresponds to a Cohen’s  $d$  of 0.12. A 30% reduction approximately corresponds to a Cohen’s  $d$  of 0.22 and a 40% reduction corresponds to a Cohen’s  $d$  of 0.33. The alpha level for statistical significance was set at 0.05.

Based on this information, 10,000 simulated data sets with a similar distribution of the outcome were created in R for each of the following combinations of effect size and sample size (treatment and control) in Table 4 and a negative binomial regression model was run using the data set. For each of the 28 combinations of effect size and sample size, the proportion of the 10,000 estimates of treatment effect that were statistically significant was stored plotted in Figure 8 and presented in Table 4. The code for these analyses is included as Appendix 2.

**Table 4. Sample sizes, effect sizes and statistical power**

	Relative reduction			
n	0.9	0.8	0.7	0.6
100	0.0154	0.042	0.2275	0.3248
200	0.0231	0.091	0.4958	0.6393
300	0.029	0.1349	0.6803	0.8371
400	0.0354	0.1859	0.8255	0.9391
600	0.0348	0.2745	0.954	0.993
800	0.0397	0.3447	0.99	0.999
1700	0.04	0.6461	1	1
2500	0.0417	0.8334	1	1



**Figure 8. Sample size, power and effect size for simulations within the ACF programme**

The graph illustrates the relative importance of effect size ('relative change') and sample size to statistical power. The slope of the lines clearly indicates that effect size is disproportionately important for statistical power compared to the influence of sample size. Using these simulations, it is unlikely that five sufficiently powered trials would be achievable even in the most optimistic of treatment effects. Consequently, as the site interventions are largely homogenous – designed according to the same framework and with comparable populations – an option to pool the data from all five sites as a multi-centred trial was considered. This pooling would achieve a sample size of approximately 1,700. Based on this sample size, a relative reduction of 26% would be detectable in 80% of trials. Therefore, pooling was determined to be the best trade-off in terms of value for money and feasibility to detect a realistic effect. It should be noted that an effect of this scale would be unprecedented in community-based violence prevention evaluations.

### Multisite trial viability

The study has been framed as a multi-site trial. For violence prevention, given the rare events, rare sample and limited practitioner resource available in any one administrative area, the use of multiple centres is likely to be the only viable approach to achieving sufficient sample size for robust experimental and quasi-experimental design studies of individual-level interventions. The current study has the potential to achieve that size using a pooled sample,

but this is on the assumption that the intervention is delivered consistently and the evaluation conducted consistently across all sites. While strict consistency may be possible in clinical settings with a physiological intervention, it is extremely difficult to achieve in complex intervention settings in the community with multiple delivery partners. In addition, the nature of violence prevention contexts means that prescriptive, manualised interventions are unlikely to be reproduced. This point is illustrated by the observation that in the co-alignment and preparation stages of the project, all five sites received similar budgets, support and guidance including the YEF Focused Deterrence Framework outlining what the intervention should entail. From these similar resources, grounded in their own local contexts, sites identified populations and designed interventions that are very similar but not consistent in the way that a multicentred clinical trial would be consistent. It is questionable if any two sites with different teams and contexts would design identical interventions with identical populations.

In the absence of a feasibility study to determine the viability of a multisite trial, this study has embedded prudent process monitoring to assess treatment fidelity across the sites and sought to control intervention and evaluation processes as much as possible. As the evaluation team were not in control of the intervention design nor will they control its delivery, observation and ongoing assessment will be crucial to justifying the pooling of study data. Consistency in delivery across the trial periods will be assessed through the process evaluation.

### **Divergence in PICO criteria**

The PICO criteria for each trial have been summarised in Table 5 to facilitate comparison. However, as comparing seven trials is complex, their similarities and differences are also described below.

**Population:** As can be seen from the seven PICO statements and the summary of these statements in Table 5 below, the major variations are in the eligibility criteria. All focus on individual with a history of violence or explicit risk of future involvement in violence. A particular focus has been placed on their exposure to group violence and the exclusion of individuals who solely perpetrate domestic abuse. This has resulted in a largely male cohort in late adolescence and early adulthood with similar offending histories. The major divergence is with the two 'referral' cohorts who will have been offered the programme and rejected it prior in order to be eligible for the programme. This criterion was introduced as a compromise to ensure the acceptability of any randomised delivery of the intervention in these two cities. In all seven trials, police data will be the primary source of information from which an eligible pool will be identified but in Leicester, Nottingham, Coventry referral cohort and Wolverhampton referral cohort, multi-agency partners will be able to refer individuals into the identification pool before they are screened for eligibility.

**Interventions:** Interventions in all trials have been assessed at four points in their development to ensure that they fulfil the nine criteria in the YEF Focused Deterrence framework. Interventions in all trials, except the high-risk cohorts in Wolverhampton and Coventry, follow a near-identical outline but have variations in the precise nature of delivery



(described in detailed above). The two high-risk cohort trials differ from the other trials in that they do not have explicit case review and contact activity as they will operate a rapid deployment procedure when an individual comes to the attention of police or hospital staff. This procedure prohibits the potential for a detailed case review as engaging quickly at a teachable moment is a crucial component in the intervention mechanism.

**Comparison:** In all seven sites, eligibility will automatically lead to randomisation with the same stratification criteria.

**Outcome:** Outcomes are identical in all seven trials and are based on standardised crime recording methods.

**Table 5. PICO criteria comparison**

Trial	Leicester	Manchester	Nottingham	Coventry high risk cohort	Coventry referral cohort	Wolverhampton high risk cohort	Wolverhampton referral cohort
Population	<p>Member or associate of a group who are involved in committing serious violence or who are engaged in activities which drive the local serious violence problem such as drug supply.</p> <p>They must also meet one of the following criteria. In the past two years, they have been:</p> <p>arrested for or suspected of committing serious violence</p> <p>arrested for or suspected of committing offences involving a</p>	<p>Connected to a homicide or near-miss violent offence with a group violence component committed in the past two years</p> <p>Committed a non-domestic abuse flagged violent offence in the past two years.</p> <p>Resident in Manchester or North Trafford.</p> <p>Aged 14-25 years</p>	<p>Aged between 14-24 years and residing within the Nottingham City boundary or have group bonds to the area.</p> <p>Arrested for a <i>violent or weapons offence</i> in previous 12 months.</p> <p>Arrested for an offence that involved three or more perpetrators.</p>	<p><b>List A</b></p> <p>Aged 14years or over</p> <p>An objective link to a recognised group within the city</p> <p>Address to be within the ward boundaries of the city</p> <p>At least one or more from List B)</p> <p><b>List B</b></p> <p>Have a violent offence committed (listed as a suspect) within the last 18 months that is non-Domestic Abuse (include violence with injury, homicide, possession of weapons)</p>	<p>The main criteria for the population of interest is a gang/group link or being at risk of criminal exploitation.</p> <p>The eligible individual further must have an unmet need and must live in the city or within one hour from it (if moved). The remaining criteria slightly differs based on the referral agency but includes, for example, evidence of involvement in violence/exploitation; arrest for a trigger offence; an OCG link; association with criminal peers or in a known gang spot; being known to social care; being a looked-after child; being presented with injury with requisite suspicion; being at risk of school exclusion; being under probation or on licence; or showing evidence of unstable home environment/criminality.</p>	<p><b>List A</b></p> <p>Aged 14years or over</p> <p>An objective link to a recognised group within the city</p> <p>Address to be within the ward boundaries of the city</p> <p>At least one or more from List B)</p> <p><b>List B</b></p> <p>Have a violent offence committed (listed as a suspect) within the last 18 months that is non-Domestic Abuse (include violence with injury, homicide, possession of weapons)</p> <p>Police intelligence linked to Organised</p>	<p>The main criteria for the population of interest is a gang/group link or being at risk of criminal exploitation.</p> <p>The eligible individual further must have an unmet need and must live in the city or within one hour from it (if moved). The remaining criteria slightly differs based on the referral agency but includes, for example, evidence of involvement in violence/exploitation; arrest for a trigger offence; an OCG link; association with criminal peers or in a known gang spot; being known to social care; being a looked-after child; being presented with injury with requisite suspicion; being at risk of school exclusion; being under probation or on licence; or showing evidence of unstable home environment/criminality.</p>

	<p>weapon or possession of a weapon</p> <p>flagged as a habitual knife carrier</p> <p>arrested for or suspected of drug offences.</p>			<p>Police intelligence linked to Organised Crime Group with a violent threat / sub-threat</p>		<p>Crime Group with a violent threat / sub-threat</p>	
Intervention	<p>Assessed as compliant with YEF FD framework.</p> <p>Key components:</p> <ol style="list-style-type: none"> <li>1. Identification</li> <li>2. Eligibility</li> <li>3. Case review and contact preparation</li> <li>4. Contact and initial engagement</li> <li>5. Services and community support</li> <li>6. Enforcement</li> <li>7. Exiting the programme</li> </ol>	<p>Assessed as compliant with YEF FD framework.</p> <p>Key components:</p> <ol style="list-style-type: none"> <li>1. Identification</li> <li>2. Eligibility</li> <li>3. Case review and contact preparation</li> <li>4. Contact and initial engagement</li> <li>5. Services and community support</li> <li>6. Enforcement</li> <li>7. Exiting the programme</li> </ol>	<p>Assessed as compliant with YEF FD framework.</p> <p>Key components:</p> <ol style="list-style-type: none"> <li>1. Identification</li> <li>2. Eligibility</li> <li>3. Case review and contact preparation</li> <li>4. Contact and initial engagement</li> <li>5. Services and community support</li> <li>6. Enforcement</li> <li>7. Exiting the programme</li> </ol>	<p>Assessed as compliant with YEF FD framework.</p> <p>Key components:</p> <ol style="list-style-type: none"> <li>1. Identification</li> <li>2. Eligibility</li> <li>3. Case review and contact preparation</li> <li>4. Contact and initial engagement</li> <li>5. Services and community support</li> <li>6. Exiting the programme</li> </ol>	<p>Assessed as compliant with YEF FD framework.</p> <p>Key components:</p> <ol style="list-style-type: none"> <li>1. Identification</li> <li>2. Eligibility</li> <li>3. Case review and contact preparation</li> <li>4. Contact and initial engagement</li> <li>5. Services and community support</li> <li>6. Enforcement</li> <li>7. Exiting the programme</li> </ol>	<p>Assessed as compliant with YEF FD framework.</p> <p>Key components:</p> <ol style="list-style-type: none"> <li>1. Identification</li> <li>2. Eligibility</li> <li>3. Case review and contact preparation</li> <li>4. Contact and initial engagement</li> <li>5. Services and community support</li> <li>6. Enforcement</li> <li>7. Exiting the programme</li> </ol>	<p>Assessed as compliant with YEF FD framework.</p> <p>Key components:</p> <ol style="list-style-type: none"> <li>1. Identification</li> <li>2. Eligibility</li> <li>3. Case review and contact preparation</li> <li>4. Contact and initial engagement</li> <li>5. Services and community support</li> <li>6. Enforcement</li> <li>7. Exiting the programme</li> </ol>

Comparison	Stratified randomisation of all eligible individuals	Stratified randomisation of all eligible individuals	Stratified randomisation of all eligible individuals	Stratified randomisation of all eligible individuals	Stratified randomisation of all eligible individuals	Stratified randomisation of all eligible individuals	Stratified randomisation of all eligible individuals
Outcome	Number of violent offences in one year following randomisation  Involvement in co-offending in 12 months following randomisation  time in days between randomisation and first violent offence	Number of violent offences in one year following randomisation  Involvement in co-offending in 12 months following randomisation  time in days between randomisation and first violent offence	Number of violent offences in one year following randomisation  Involvement in co-offending in 12 months following randomisation  time in days between randomisation and first violent offence	Number of violent offences in one year following randomisation  Involvement in co-offending in 12 months following randomisation  time in days between randomisation and first violent offence	Number of violent offences in one year following randomisation  Involvement in co-offending in 12 months following randomisation  time in days between randomisation and first violent offence	Number of violent offences in one year following randomisation  Involvement in co-offending in 12 months following randomisation  time in days between randomisation and first violent offence	Number of violent offences in one year following randomisation  Involvement in co-offending in 12 months following randomisation  time in days between randomisation and first violent offence

## Outcome measures

### Primary outcome

The primary outcome is the number of offences of violence against the person attributed to an individual within one year of randomisation.

An offence will be measured if an offence of Violence Against the Person<sup>3</sup> is attributed to an individual's Police National Computer (PNC) record. PNC metadata will be used to identify individual cases and disposals relevant to this measure. During the primary outcome measurement period, the PNC metadata 'PersonID', 'PNCID', 'CRONumber', 'PNCFilename', 'OffenceID', 'DisposalID' and 'PNCDisposalCode' variables will be used to link participant data to violence against the person cases and disposals. It can take up to six months for a disposal outcome to be assigned and the PNC record to be updated, which will be considered in the data collection and analysis. It is a requirement that each site routinely monitors this measure by manually searching PNC records and cross-referencing with the Police National Database (PND), local intelligence and crime-recording systems, and custody systems relating to individuals in either group. The primary outcome will be created from PNC records using the date of any eligible offence (OffenceID) within the period of the trial. The evaluation team will construct a data set using the date of randomisation as time zero and calculate the number of relevant occurrences within one year of allocation. While the evaluation team will collect data on crime offence counts as well, this individual-based approach was chosen as the best way to measure the primary outcome and work around potential disparities in the crime recording system and Home Office outcomes codes when measuring the primary outcome. Primary outcome data will be collected throughout the trial and analysed during the summative evaluation phase.

A police-recorded violence against the person offence measure is the most suitable outcome to evaluate the effectiveness of the intervention as it is a standardised measure of violent behaviour. Although around half of all violent behaviour is not reported to the police, this attrition rate decreases as the severity of violence increases ([Brennan, 2017](#)), with approximately 79% of violence against adults (16yr olds and over) treated by a medical professional meaning that it will capture the majority of serious violent offending. Rates of reporting of violence against 10-15 year olds is considerably lower with less than 10% of all violence being reported and 18% of violence resulting in medical treatment being reported.

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<sup>3</sup> The list of all offences classed as Violence Against the Person is here: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/977202/count-offence-classification-index-apr-2021.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/977202/count-offence-classification-index-apr-2021.pdf)

## Secondary outcomes

Secondary outcomes measures will include:

1. The number of days between randomization and a recorded offence of violence against a person with a PNC disposal outcome relevant to the evaluation.

This outcome will be calculated using information on the date of the first offence following randomisation and the date of randomisation. As the intervention will run for two years with a one-year follow-up, data will be available for more than up to three years in some cases. Although the theory of change is based on desistance from violence within one year of randomisation and the primary outcome reflects this, there is potential to test for longer-term effects, albeit with differing levels of exposure across individuals. Consequently, time-to-offence is a suitable secondary outcome as it reflects delays rather than total cessation of violent offending but over a potentially longer period of time. Information about delays in offending will inform two aspects of the intervention: Is intervention associated with a delay in offending and is the level and length of engagement with the intervention associated with a delay in offending?

2. When there is a co-offender, the number of recorded offences of violence against the person attributed to an individual with a PNC disposal outcome relevant to the evaluation.

This outcome will be captured from PNC records at the time of capturing the primary outcome. For each offence captured in the follow-up period, an individual will be identified as co-offending if the PNC category 'CoOffenderID' is not blank.

To varying degrees, all the interventions seek to reduce violence by reducing the involvement of the intervention cohort in the activities of violent groups/gangs. Co-offending is a valid measure of continued involvement in group activity. Its use as a secondary outcome will inform the mechanism by which the intervention is purported to reduce individual violent offending.

3. When there is a co-offender, the number of 'any' recorded offences attributed to an individual with a PNC disposal outcome relevant to the evaluation.

Secondary outcome data, like primary outcome data, will be collected throughout the trial and analysed during the summative evaluation phase. PNC metadata variables 'TotalCoOffenderCount' and 'TotalImpendingCount' will be used to measure these outcomes. Secondary outcome 3 includes counting the total number for all types of offences committed during the evaluation period, not just violence against the person.

## **Blinding**

Outcome data will be extracted from police records by a police analyst in each of the four police force areas (Leicestershire Police, Greater Manchester Police, Nottinghamshire Police and West Midlands Police). The data will be generated through routine police activity and following crime recording standards. The analysts will receive a list of individuals in the intervention and control groups via secure email (CJSM) but will be blind to the intervention allocation of any individual nor will they have played a role in the intervention. The analyst will link the individual name to the unique ID and remove any identifiable information. The evaluation team will have access to the unique ID and treatment allocation through the randomiser platform. This will allow the evaluation team to link outcomes and treatment allocation (illustrated in the trial information flow diagram, Figure 10).

## **Baseline measures**

We will use prior offending as a baseline measure, to be incorporated into our analysis to improve statistical power. This will be based on police records and will mirror the outcome variable construction.

## **Compliance with intervention allocation (i.e. did what was offered get taken up?)**

Compliance will be measured at the participant and intervention team level. At the participant level, this will be monitored by the intervention team as a part of their regular intervention delivery. Compliance will be operationalised as attending the intervention, engaging with the opportunities, and self-reported reducing/desisting violent engagement via interview. This data will be given to the evaluators in regular intervals. We will work with site teams to define thresholds or working definitions of compliance e.g. the proportion of appointments attended, or enforcement actions undertaken, to allow a quantitative measure of compliance to be constructed. Note that this has not previously been done in evaluations of FD, so we anticipate some need to test and amend the measure as part of the pilot phase.

The evaluators will also be assessing what the intervention providers did by conducting observations of programme delivery (i.e. meetings between individuals involved in the intervention and programme delivery team members/navigators) at, approximately, six weekly intervals and administering interviews with intervention delivery team, intervention management team, stakeholders, and intervention participants.

## **Fidelity to treatment (i.e. was what was planned, delivered?)**

High quality logic models built on strong theories of change are considered vital to the evaluability of the intervention, as they determine whether it has been adequately defined to be implemented with fidelity, has achievable outcomes and is suitable for rigorous evaluation. The formative evaluation strategy has been designed to identify whether the intervention components were delivered in accordance with the YEF FD framework and whether changes were required to accommodate local context and population

requirements.<sup>4</sup> This protocol recognises the importance of high fidelity for reliable and valid outcome variable measures, as well as the internal validity of the intervention in each of the sites. Throughout the trial period, routine data on fidelity and how complexity may affect intervention delivery will be collected to measure: how has the intervention been delivered with adherence to YEF guidance (adherence); how much of the intended intervention has been delivered (dosage); how well were the different components of the intervention being delivered (quality); what was the rate of participation by the intended population (reach); what extent did the participants engage with the intervention (responsiveness); what extent did the intervention activities sufficiently differ from existing practices (intervention differentiation); what changes were needed to accommodate context and population requirements (adaption); and how have the characteristics of complexity affected the delivery of the intervention (complexity). The routine collection of these data will also be used to quickly assess potential issues associated with treatment fidelity.

### **Spillover effects, cross-condition contamination and stable unit treatment value assumptions (SUTVA)**

By definition, the trial's outcome of interest – violence – occurs between two people, meaning that there is an inherent threat to the stable unit treatment value assumption (SUTVA). For example, preventing one individual from being violent deprives another individual of a person to fight. This threat is further amplified by the observations that much violence involves co-offending; violence and communicated threats of violence exhibit properties of contagion meaning that preventing one individual from being violent or the desire to be violent deprives another person of an opportunity to co-offend or can interrupt the flow of information that supports violent behaviour. While these threats are acute in the evaluation of individual-level violence prevention interventions, there are, to our knowledge, no viable practical ways to address it that would not introduce problems elsewhere.

In the absence of viable practical solutions to the SUTVA problem, it remains a necessary cost in the trade-off to randomise violence prevention interventions at the individual level. We will, however, seek to capture and describe examples of spillover effects from the intervention group to the control group (or in the other direction) in three ways:

1. Interviews with the intervention sample will explore the role of peers in the individual's life and experience of the intervention. Sample questions will cover what does the individual's friends know about the programme; did they discuss it with friends; did the programme affect what they do with friends (including violence)? While qualitative in nature and cannot be captured for the control group, nor is it likely to be captured for the majority of the intervention group (due to likely sampling challenges), these responses will inform our understanding of the probable extent of SUTVA issues within the trial.

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<sup>4</sup> Formative evaluation question (FEQ) 6 of the programme level formative evaluation plan describes how fidelity to treatment will be measured from data collected from the delivery team. This is set out in Section 2.4 of the programme formative evaluation strategy v2.0.



2. Interviews with the programme delivery team, particularly those involved in the enforcement delivery component of the programme, will ask about the ability to be precise in delivering enforcement to specific individuals. The data from these interviews will inform our assessment of SUTVA violation and any mitigation that might be possible.
3. Information on co-offending will be captured as a secondary outcome. It may be possible to examine patterns in the treatment allocation of co-offenders within the outcomes data set. This will allow us to describe and potentially adjust for the relationship between treatment condition and co-offender treatment condition (or absence from the cohort entirely). The ability to do this rigorously will form part of the pilot activity and will inform the statistical analysis plan.

In addition, we will closely follow the outputs of the READI trial and ongoing associated research that is seeking to model spillover effects in a similar support-focused intervention for people at risk of involvement in violence.

## **Analysis**

### **Assessing baseline equivalence**

Statistical significance tests will not be carried out to assess balance, as their premise does not hold in randomised control trials<sup>5</sup> (i.e. given appropriate randomisation procedures were followed, any differences between control and treatment groups at baseline will be by definition due to chance). Instead, tables of the pooled means (and standard deviation, where appropriate) for each characteristic and the magnitude of any differences explored will be presented. For skewed variables, quartile based measures will be presented. We will specify in the SAP the details for assessing imbalance - which will set out criteria against variables used in randomisation and any putative control variables used in our analysis to increase power (e.g. previous offending). We will also present balance visually – so, for previous offending we will look at the distribution of offence counts by treatment and control.

## **Statistical models**

### **Intention-to-treat analysis**

Our analytical approach, based on the project progress to date and our understanding of the proposed implementation, will be to pool individual data from all sites into a single analytical model. Our primary analysis will be on the basis of intention-to-treat (ITT). That is, individuals will be analysed according to the group they are randomised to, regardless of whether or not they engaged with the intervention or remained in control. The ITT approach is particularly relevant for future policy-making stakeholders and practitioners who may roll out or implement a particular intervention without much control as to how that intervention is actually taken up in the system. Therefore, the ITT approach allows for estimating the effects of offering that particular intervention.

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<sup>5</sup> <http://www.consort-statement.org/checklists/view/32-consort/510-baseline-data>

The statistical model for the ITT analysis is set out below in equation 1. The model incorporates variables to account for between-site and over-time variation, as well as variables used for stratification.

$$Y = \alpha + \beta_1[treatment] + \beta_2[offending\ frequency] + \beta_3[adult] + \beta_4[site] + \beta_5[year/month] + \epsilon$$

(Eq.1)

In the equation,  $Y$  is the outcome - in this case a count variable measuring the number of violent offences attributed to an individual in the twelve calendar months following randomisation of an individual. The analysis approach will be based on count outcomes - we intend to use a *zero-inflated poisson*, based on the fact that many individuals will likely not have further offences in the follow-up period of 12 months post-randomisation.

$\beta_1[treatment]$  will be a binary variable where 0=control and 1=treatment and the coefficient from this variable in the model will be the focal result for the project.

$\beta_2[offending\ frequency]$  is one variable that will be used for stratification in each site. This will be included in the analysis as n-1 dummy categories, with the reference category being the category with the largest number of observations from low, medium or high offending frequency (note that not pre-specifying which category now will not affect the results).

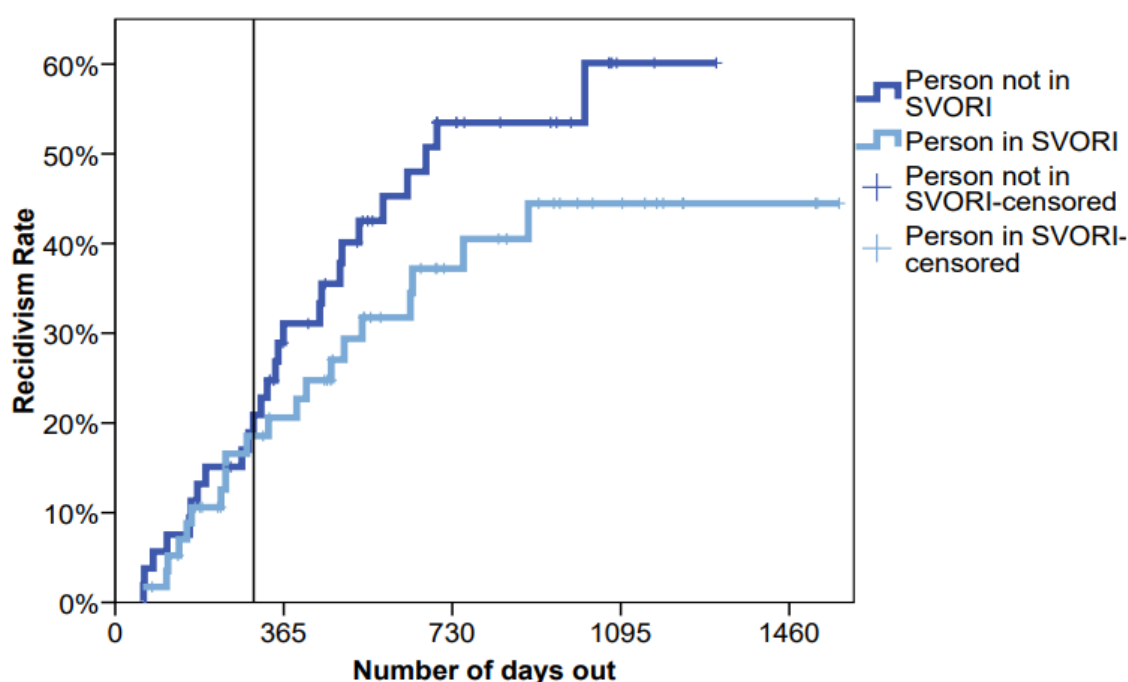
$\beta_3[adult]$  will be a binary variable for whether an individual is aged 18 years and older (=1) or a child (=0).  $\beta_4[site]$  will be site fixed effects - dummy variables for n-1 sites, again with the site with the largest number of observations overall as the reference category (anticipated to be either Coventry or Wolverhampton in the West Midlands). We include this variable because we know, *a priori*, that sites will differ in their eligibility criteria and selection processes, so we need to parcel out this variation in our analysis. Finally,  $\beta_5[year/month]$  will be a variable that captures the year and month since the start of the delivery period. This measure will capture seasonal variation as well as any esoteric shocks during the delivery period. This will be entered as a continuous variable, but if there are model convergence problems then we would aggregate this to year-quarter. We also acknowledge that it may be necessary to include another variable for offender sex, depending on the number of females included. If this was necessary, then this would be a binary variable with 0=male and 1=female, determined by sex at birth if possible to determine this from available data.

For our analysis, we will use robust standard errors and calculate 95% confidence intervals based on those - with the exact specification to be clarified in the statistical analysis plan. We know up front that SE adjustment is sensible given that this helps in the event of model misspecification and in the face of heterogeneous treatment effects ([Cunningham, 2020](#); [White, 1980](#)). Our model specification will be the same for primary and secondary outcomes.

### **Time-to-event analysis**

The analysis of time-to-event will be via a Cox proportional hazard's model ([Cox, 1972](#)). The covariates in the analysis will be the same as for Eq.1 above, but the outcome will be a

binary outcome for when the next in-scope offence occurred following randomisation (to be clear, the outcome consists of the date the offence occurred).<sup>6</sup> The Cox model does not have an underlying assumption about the distribution of the hazard function, meaning it is a semi-parametric model. The interpretation of a Cox model - AKA a hazard or survival model - relates to the speed of which an event occurs in a given time-frame. In this case, we will be looking at in the 12 months post randomisation - were those in treatment or control more or less likely to reoffend, and if so, did this happen more quickly in one group than the other? For an illustration and application see Howard (2011) and Figure 9 below from McLean and Butler (2008) which shows a comparison between a (quasi-experimental) treatment group (SVORI) and comparison group (non-SVORI), in terms of the cumulative reconviction rate. This shows that SVORI group members were less likely to be reconvicted as quickly than the comparison group.



**Figure 9: Example survival analysis output**

### Co-offending violence

The analysis of co-offending violence will not be sufficiently powered because it will only include a sub-set of offences (those committed with a co-defendant), but it is none-the-less important to assess because of the emphasis placed on co-offending in the intervention. Our analysis model will again mirror that of Eq.1, but the outcome will be a count of attributable offences where there was a co-defendant (whether or not the co-defendant was identified).

<sup>6</sup> One check to undertake in the police data will be the completeness of 'offence from' and 'offence to' dates and times in PNC (or 'offence start date' and 'offence end date'). These two dates indicate the estimate for when an offence took place - for example if a burglary took place while someone was away on holiday but there is no other information as to when, then the 'to' and 'from' dates might cover the dates the person was away from home (see [Sutherland, 2013](#)).

### **Complier-average-causal-effect (CACE) analysis**

The ITT approach is inherently conservative as it captures the averaged effect of offering the intervention for those who do not comply and the effect for those who do comply. To understand the impact for compliers, we will also conduct analyses that focus on the causal impact of treatment on compliers via complier average causal effects (CACE) ([Cunningham, 2020](#)). Estimating causal effects for compliers robustly relies on the econometric technique of instrumental variables (see [Angrist and Pischke, 2009](#)). In order to use an IV model, we need a continuous measure of compliance which gives us the proportion of individuals complying with allocation to treatment and control. This continuous measure will then allow us to first regress the compliance score on treatment allocation and predict residuals (allocating control conditions a compliance score of zero, unless there is evidence of contamination). Predicted standardised residuals from the first stage model are then substituted into the regression equation in Eq. 1, replacing the treatment variable with standardised predicted residuals.

### **Missing data strategy**

We will explore attrition across trial arms as a basic step to assess bias ([Higgins et al., 2011](#)). To assess whether there are systematic differences between those who drop out and those who do not – and whether factors should be included in analysis – we would model missingness at follow-up as a function of baseline covariates, including treatment. This allows us to assess whether treatment is correlated with missing outcomes or not. For outcome non-response, the extent of missingness may in part determine the analytical approach. For less than 5% missingness overall a complete-case analysis should suffice, regardless of the missingness mechanism ([EEF, 2018](#)). Our default would be to check results using approaches that account for missingness that rely on the weaker Missing at Random (MAR) assumption, building the MAR conditioning variables from our initial work predicting missingness. If there was systematic missingness of predictor variables, for example, we would explore options for using full information maximum likelihood (FIML) ([EEF, 2018](#); for a discussion of FIML vs MI see [Allison, 2012](#)). In the event that baseline data are unavailable or missing for individuals, those individuals would be included in the outcome analysis via FIML, rather than sacrifice statistical power through excluding them.

### **Sub-group analyses**

The study will not be powered for sub-group analyses that rely on null hypothesis statistical testing because the approach to conducting sub-group analyses in trials is to run models as interactions between group and treatment. This typically means requiring a sample size ~x4 times larger than that for the main effect analysis. Conscious of this, prior to the SAP we will explore the use of Bayesian methods to understand if they can be meaningfully employed for sub-group analyses. In the event they cannot, we will still undertake sub-group analyses for the different risk groups in each site, and will report point estimates and confidence intervals but will not report or share p-values with YEF or sites. This will allow an assessment of the direction and magnitude of effect without the bias of ‘statistical significance’ that we know, a priori, will be very likely due to chance and not a real effect, even if pre-specified.

### **Interim analyses & stopping rules**

Given the seriousness of the cohort involved and the potential for adverse effects that are inherent to any intervention focusing on reducing reoffending, we will conduct interim analyses of outcomes six months after the trial begins (with trial start defined as the date the first participant is randomised in any site). That analysis will focus on the *direction* and *magnitude* of effects but will not involve statistical analysis to avoid ‘alpha spending’ (Meurer et al., 2021; see also the example in PSU (no date) which shows the different approaches to implementing ‘alpha spending’).

The study will also use stopping rules - a set of pre-specified limits that will guide whether or not to proceed further with the study. In the case of interim analysis, our main focus will be on whether there is clear evidence of harm - defined as a negative impact on offending (averaged across sites) where the reoffending prevalence in the treatment group is equal to or more than 10 percentage points greater than the control group prevalence (e.g. 20% in treatment, 10% in control). This allows for site-specific differences but also means that interim analyses showing harmful effects in one site will not determine that all sites have to stop recruiting / referring. The rules will be:

- In the event that the average impact is negative then the study will pause intake for one month to allow for options regarding progression to be tabled and agreed upon.
- If the average impact is positive, the threshold for roll-out to all participants will be higher. Reoffending prevalence would have to be 15 percentage points lower in the treatment group than control participants (e.g. 30% in control, 15% in treatment). This asymmetry reflects that we want to be more cautious (more sensitive) to negative effects than positive ones.

### **Longitudinal follow-ups**

The designs set out would allow for longitudinal follow-ups of all participants using administrative data. At this point in time we anticipate a 24 and 36 month post-randomisation follow-up, but those are outside the current funding. In the event of additional follow-ups, the analysis models will mirror those used for the main study based on Eq.1.

## Formative and process evaluation

### Formative research questions

Nine realist evaluation questions provide the basis for the formative and process evaluation (FEQ). The formative evaluation questions are as follows:

FEQ 1: To what extent were the critical components of the intervention received by the target population?

FEQ 2: How did inputs contribute to the intervention functioning?

FEQ 3: Who did the intervention work for and how?

FEQ 4: How did local context affect intervention delivery?

FEQ 5: To what extent was the intervention delivered as intended?

FEQ 6: How did complexity affect intervention delivery?

FEQ 7: How did proximal outcomes change?

FEQ 8: Why did proximal outcomes change?

FEQ 9: What was learned from how the intervention was delivered?

### Formative and process evaluation approach

The implementation and process (i.e., formative) evaluation strategy will use a realist approach to determine whether the dynamic and complex nature of the intervention is likely to yield desirable proximal outcomes in varied local contexts. High quality logic models built on strong theories of change are considered vital to the evaluability of the intervention, as they determine whether it has been adequately defined to be implemented with fidelity, has achievable outcomes and is suitable for rigorous summative evaluation. A key component of the realist nature of this evaluation is the high-level context-mechanism-outcome (CMO) configurations that have been co-created prior to the early implementation phase. As shown in Table 6, these initial high-level CMO configurations will be used to test and develop a range of realist causal explanations that can be attributed to local 'observable' contexts. As recommended by an external expert (Prof Chris Bonnell, London School of Hygiene and Tropical Medicine, UK), the evaluation will contain a limited number of CMO configurations centred on generally accepted 'big' ideas that have been previously used in the literature to plausibly explain why targeted deterrence, the provision of support, and community voice and legitimacy may have an effect on specific individuals in varied contexts. During the early implementation phase, a final list of CMO configurations will be compiled for evaluation during the full implementation phase. The final list of conditions, aligned to the YEF implementation framework, will likely depend on the availability of relevant data, resources and viability of testing configurations. This approach is aligned to the experience and advice from the external expert advisor.

**Table 6. Initial High-Level C-M-O configurations**

Context	Mechanism	Outcome(s)
Variance in activities and resources	Increased Targeted Deterrence	Behaviour Modifications

Variance in resources and available services	Individualised Support	Pathways to Desistance
Variance in levels of trust and confidence in local policing and support services	Community voice and legitimacy of Intervention	Supporting Moral Voice

The part of the evaluation will employ a mixed-methods design combining qualitative and quantitative methods to answer the formative evaluation questions. The rationale for selecting this design is that early qualitative data can be used iteratively to discover and theorise important context-mechanism-outcome configurations, which can subsequently be measured and tested. Additionally, qualitative methodologies will be employed to record developing changes in implementation, intervention experiences, and unanticipated or complex causal pathways, as well as to generate new theories of change. Equally, the early identification of implementation and participation barriers using quantitative data is also a crucial aspect of the approach for evaluating the intervention. For instance, if routine quantitative monitoring data indicates that the intervention is not reaching targeted population groups or that relatively few members from minority ethnic groups are not participating, interviews, focus groups, or self-completion questionnaires can be undertaken with stakeholders and potentially participants to identify and implement measures to mitigate process barriers and moderate these effects of the intervention.

### **Data collection methods**

The realist design of the formative evaluation strategy is method neutral and does not emphasise the usage of particular data collection methods. A range of methods will be used to collect longitudinal, cross-sectional and pre-post data from multiple corroborative data sources, including delivery stakeholders, participants, project documents and routine data. The following methods will be used during the formative evaluation. We offer summary descriptions and definitions of these methods below:

- Semi-structured interviews
- Observations
- Survey questionnaires incl. psychological measurements and tests measuring self-report offending (based on the Self-Reported Delinquency Scale) and experience of programme engagement.
- Routine outcome performance monitoring using administrative data

### **Semi-structured Interviews**

Interviews will be conducted with intervention participants, intervention team, and stakeholders. Settings will include the home of participants, community spaces (e.g. youth centres), and official buildings occupied by the intervention team and statutory services (e.g., police station, probation's office). This will vary depending on the participant and where they feel the most comfortable. For interviews with intervention delivery teams and stakeholders an online option via Teams will be offered too.

The semi-structured interviews will focus on the individual's experience of involvement in the programme and the C-M-O configurations.

There will be no upper limit on the number of interviewees regarding participants involved in the intervention. This is due to the expected high attrition rate that is often the case in longitudinal interviews. As such, the researchers will aim for a higher number of individuals included in the first round of interviews, to be able to retain some of them until the end of the intervention.

For interviews with the intervention delivery team and stakeholders, the sample size will be determined by each site. Yet, the evaluators will aim to recruit every member of the intervention team. Previous process evaluations and longitudinal interviews with similar populations have failed to obtain even modest sample sizes. The evaluation will seek to incentivise participation in and retention in interviews through voucher rewards that increase in value for continued participation but the reward must be sufficiently low that it does not incentivise participation in the project. Project interview staff will also attend training in researching with underserved groups to facilitate the rapid establishing of trust and participant engagement.

### **Observations**

Observations of intervention participants (i.e., meetings between the participant and delivery team members) will take place in the participant's home, in a community setting or a delivery team setting. The evaluation team will simply observe routine practice using a standardised data collection protocol. This protocol will be based on the nine YEF FD framework criteria and the intervention design for each site. For convenience, we will schedule 'observation weeks' that cycle through the five delivery sites. Sampling purposely, we will seek to undertake observations of around 25% of practice activity over approximately 17 observation weeks.

Observations of team and stakeholder meetings will take place in statutory service meeting rooms. The researcher will observe their routine practice using both structured and unstructured methods, keeping a written record of what topics are discussed, such as group dynamics, teamwork, conflict, decision making, physical environment, knowledge, available resources, cultural and social context.

### **Surveys**

Surveys with intervention participants will be administered predominantly online, although they will be given an option of a paper-based survey. This will be run either by the delivery team, on behalf of the researchers, or by the researchers themselves during one of their visits to the intervention delivery sites. The surveys will inquire about the extent of the individual's level of engagement in violence, their satisfaction with the intervention, the services received as part of the intervention, and future plans regarding engagement with the intervention and other services. The survey will also include items relating to the C-M-O configurations (e.g. to what extent were you aware that the programme was led by police?). Every intervention participant will be asked to participate in the survey.



## Administrative data

Delivery teams will collect extensive data on intervention delivery that will be used to describe the cohort, assess balance of intervention and control groups, summarise participant pathways through the intervention, quantify levels of engagement, describe timing of attrition and graduation from the intervention. These data sets will be passed to the evaluation team at six month intervals.

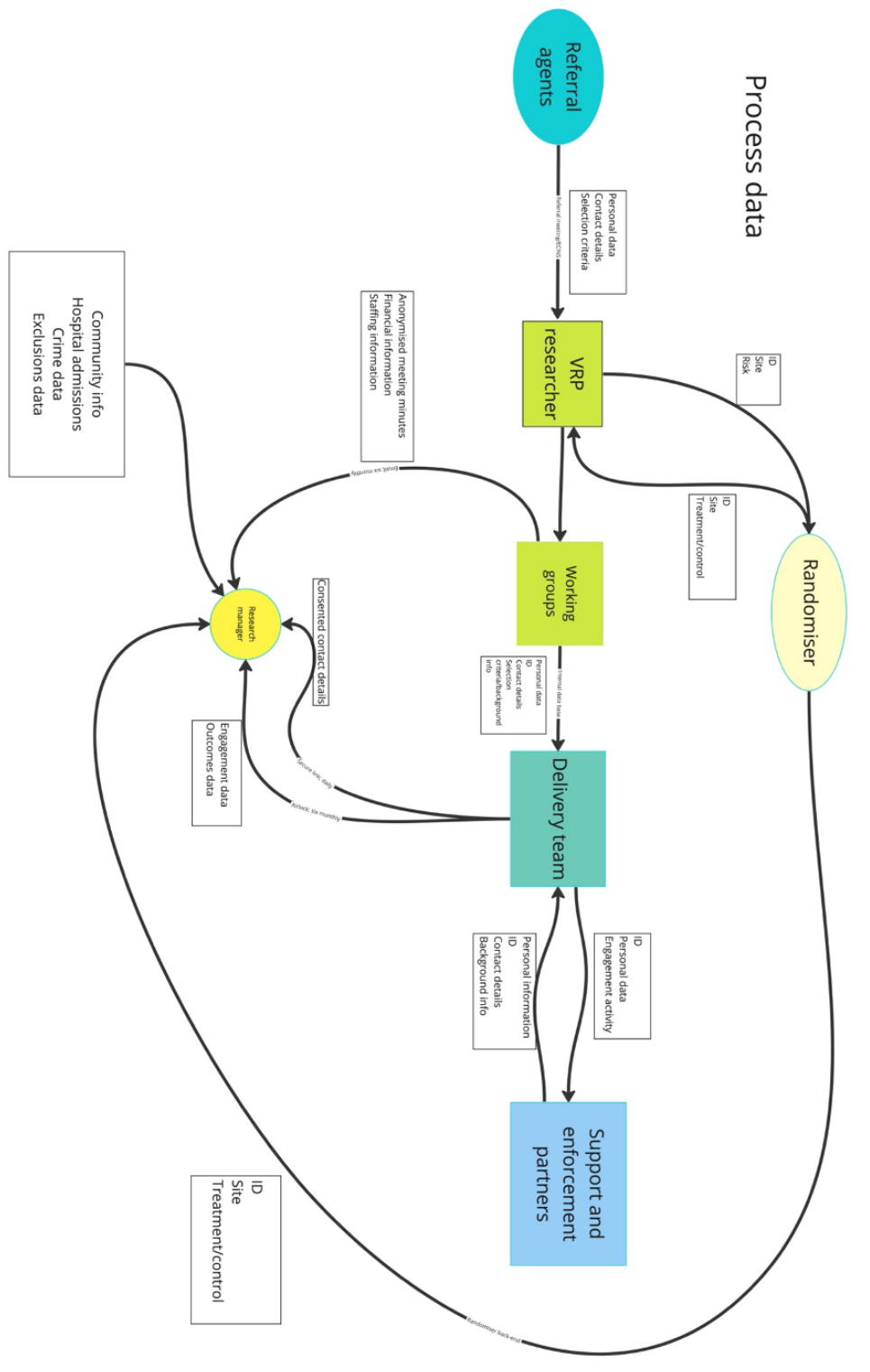
Table 7 below details the variables that sites will collect. This list is not exhaustive and not all sites will only collect information that is relevant to their intervention(s). For example, GPS tagging is only pertinent to the CIRV interventions and some interventions will not use referral.

**Table 7. Variables to be collected**

<b>Variables collected</b>
Unique ID
Year and month of birth
Child/adult
Gender
Post code (first 3 digits)
Ethnicity (five ethnicity categories)
Date of referral
Source of referral
Date of eligibility assessment
Selection criterion A...k
Involved in group violence
Outcome of eligibility assessment
Risk assessed
Risk score
Number of violence against the person offences (agreed list of outcomes) per referred individual in 12 months preceding referral
Selected for intervention
Randomised
Accepted into intervention
Waiting list
Date of contact attempt...k
Contact made...k
Data of contact made...k

Outcome of contact...k
Was this a repeat contact attempt...k
Consented to intervention...k
GPS accepted
Date consented to intervention...k
Consented to evaluation...k
Date consented to evaluation...k
Case worker ID
Engaged with support...k
Referred to support...k
Date referred to support_k
Nature of referred service_k
Date of engagement with support_k
Outcome of engagement with support_k
Referred to enforcement_k
Reason for referral to enforcement_k
Date of first referral to enforcement_k
Nature of referred enforcement_k
Voluntarily disengaged from intervention...k
Date voluntarily disengaged from intervention...k

To illustrate the process of data sharing within the trials and how individuals will be linked to treatment conditions while maintaining data security and trial integrity, the flow of information through the intervention is described in Figure 10.



**Figure 10. Trial information flow**

### **Inclusivity and equity**

The programme formative evaluation strategy acknowledges that the implementation of the intervention in behavioural and social settings that typically have higher rates of violence may result in stigmatisation or disproportionate targeting of individuals, groups or communities. Consequently, the evaluation will collect preliminary data on evidence of

inclusivity and risk of racial disparity during early and full implementation. These phases of the evaluation will focus on individual-level data on inclusion, processes used to ensure accessibility to resources for participants from all communities and whether there is evidence of any difference in outcomes between participants or groups. The evaluation will proactively try to include participants from all groups within local communities while acknowledging the difficulties associated with realist evaluations and research more generally. For instance, the evaluation team has begun to engage with members of local communities by attending Independent Advisory Group (IAG) meetings in order to seek their support and guidance and gain a better understanding of how to identify and remove obstacles to engaging with underserved and minoritised groups (e.g, legitimacy, trust, cultural sensitivities, language). To support this criterion, it is intended that IAGs appoint members of the local community as "pathfinders" to work together with the evaluation team.

In addition to engagement with IAGs local evaluation reference groups (LERG), expert advisors will be consulted on all evaluation questions, measures and interview schedules, with an emphasis on inclusiveness and equity. The evaluation is guided by the ideals of trustworthiness, neutrality, voice, and respect, and all evaluation materials and processes will be prepared and reviewed with these values in mind. Evaluators will work with sites to help mitigate the occurrence of targeting or affecting any group disproportionately. Defining differential engagement patterns is rather simple, however, identifying targeting patterns is more difficult and will require access to more data, which will be discussed in ongoing interviews with delivery teams, stakeholders, and participants. LERG members have been identified in all five site areas and groups have been convened or are in the process of being convened. Members involve a range of community members who have experience as community leaders but also as those with lived or vicarious experience of violence. Membership terms of reference have been shared.

Through consultation with LERGs and a race equity adviser, all research questions will be critically reviewed for the presence of implicit bias or inappropriate assumptions. All research materials will also be assessed in terms of their appropriateness for the sampled population. In particular, sampling methods and materials for interviews with a sample of the target population will be subject to repeated scrutiny.

We are a team of predominantly male, white researchers who have a variety of epistemological research positions and with differing experience of engaging with young people involved in violence (through former occupations as police or as field researchers). We recognise that our positionality shapes our approach to this intervention, evaluation and the population who it seeks to engage. We have sought to acknowledge our biases in the development of our research tools and methods, but will continue to identify, acknowledge and account for them in our research activity.

### **Racial and cultural sensitivity**

It is possible that subgroup membership (e.g. ethnicity) will be associated with extreme negative outcomes that are masked by an overall average effect. We will use descriptive statistics to examine these patterns (although the extent to which we will be able to draw

robust conclusions in smaller subgroups will depend on sample size), supported by qualitative cross-sectional and longitudinal accounts of intervention experience. In addition to assessing patterns in outcomes across subgroups, we will describe proportionality in aspects of intervention delivery (selection, allocation, engagement, enforcement) but it is unlikely that we will have sufficient statistical power to rigorously test a hypothesis that there is disproportionality. From this assessment, we will feed back to sites information about patterns in proportionality of selection and will assess the need for, and potential of, statistically adjusting for ethnicity in the summative evaluation model. It is likely that we will only be able to use the smaller number of official ethnicity categories (i.e. five) as a larger set will be vulnerable to random error and incorrect inference. Sites may use this information to modify selection criteria but any deviation from these would require approval from the evaluation team and would require a high threshold of necessity.

## **Research methods**

Primary data will be collected predominantly by the evaluators and research assistants acting on their behalf. Research assistants will be conducting the interviews and doing the observations. Surveys will be administered either by the research assistants or by someone from the intervention delivery team (most likely the navigators/mentors). This will be guided by the intervention team and the evaluators will follow their advice on how best to reach the majority of the participants and be least disruptive to the running of the intervention.

Secondary, administrative data will be collected by the sites as part of their daily operation. This data will be pseudonymised and transferred to the evaluators at regular intervals.

## **Analysis**

The qualitative and quantitative data from the formative component will be analysed to develop a common understanding of how, why and for whom did the intervention work for varied local contexts. Although the sample will be dominated by those who engage with the programme, presenting a picture of the most 'successful' participants, the flexibility and depth of the longitudinal qualitative data that will be collected is a fundamental strength of the evaluation design, allowing evaluators to investigate complex processes and unexpected outcomes. It will be an iterative process to collect and thematically analyse these data. Theoretically, this means that emerging inductive topics can be explored in greater detail throughout subsequent data collection during the project lifecycle.

Specifically, qualitative data will be entered into the NVivo software tool and will be thematically analysed. A set of a priori and emerging codes will be utilised to identify recurring themes and concerns. This will be an iterative process in which these themes will also be utilised to analyse and compare data throughout the project's lifecycle, thereby establishing strong links between these data and future theories or causal hypotheses. These data will also be combined with other evaluation components. In this case, the objective is to leverage quantitative data collected on process and administrative components such as fidelity, hypothesised configurations of contextual influences, mechanisms, and proximal outcomes.

In order to analyse and refine the C-M-O configuration, we will incorporate all forms of qualitative and quantitative data collected through the formative stages and code it according to the eight C-M-O components (for example, into codes and themes). Interlinking the data will allow us to test and refine hypotheses and to rule in or out particular data through a process of triangulation (e.g. if an individual describes a process of desistance in a way that is inconsistent with their self-reported offending, we may need to explore why this is the case and consider collecting additional data). Context, Mechanism and Outcome will be explored consecutively allowing interplays between the three components to be described and interpreted. Where evidence clearly points to a dominant configuration, we will explore patterns across subgroups where this dominant configuration may not apply or may be extreme.

With regard to the summative evaluation, qualitative process analysis data may serve predictive or post hoc explanatory purposes. In other words, if these data are analysed prior to the summative analysis, they could provide prospective insights into why evaluators may anticipate favourable or negative overall intervention effects. For example, longitudinal qualitative data collected relating to proximal outcomes should, in advance, indicate whether there is likely to be an effect in longer-term outcomes. Qualitative data may also contribute to the creation of hypotheses regarding the emergence of variety in outcomes; for instance, if particular groups of young people or communities appear to have responded to the intervention or its components better than others. Similarly, these data can be used as potential indicators for negative disparities latent within the intervention. Community stakeholders will be provided with the opportunity to be involved in interpreting the data to their local contexts. Capturing these data is vital to the intervention's fidelity.

**Table 8: IPE methods overview**

Sample	Type, number	Data collection type	Location	Frequency	Data analysis methods	Research question addressed
Adult participants	All treatment population will be sampled	Interview	Home, community setting or delivery team setting	Cross-sectional/longitudinal	Thematic analysis	FEQ 3: Who did the intervention work for and how? FEQ 4: How did local context affect intervention delivery?
Child participants	All treatment population will be sampled	Interview	Home, community setting or delivery team setting	Cross-sectional/longitudinal	Thematic analysis	FEQ 3: Who did the intervention work for and how? FEQ 4: How did local context affect intervention delivery?
Adult participants	All treatment population will be sampled	Observations	Home, community setting or delivery team setting	Cross-sectional/longitudinal	Thematic analysis; content analysis	FEQ 1: To what extent were the critical components of the intervention received by the target population? FEQ 2: How did inputs contribute to the intervention functioning? FEQ 5: To what extent was the intervention delivered as intended?
Child participants	All treatment population will be sampled	Observations	Home, community setting or delivery team setting	Cross-sectional/longitudinal	Thematic analysis; content analysis	FEQ 1: To what extent were the critical components of the intervention received by the target population?

						FEQ 2: How did inputs contribute to the intervention functioning?
						FEQ 5: To what extent was the intervention delivered as intended?
Intervention delivery teams	All treatment population will be sampled	Interview	Delivery team or community setting	Cross-sectional	Thematic analysis	FEQ 2: How did inputs contribute to the intervention functioning?
						FEQ 4: How did local context affect intervention delivery?
						FEQ 5: To what extent was the intervention delivered as intended?
						FEQ 6: How did complexity affect intervention delivery?
						FEQ 8: Why did proximal outcomes change?
						FEQ 9: What was learned from how the intervention was delivered?
Stakeholders	All treatment population will be sampled	Interview	Delivery team or community setting	Cross-sectional	Thematic analysis	FEQ 2: How did inputs contribute to the intervention functioning?
						FEQ 4: How did local context affect intervention delivery?
						FEQ 5: To what extent was the intervention delivered as intended?
						FEQ 8: Why did proximal outcomes change?



						FEQ 9: What was learned from how the intervention was delivered?
Intervention delivery teams	All treatment population will be sampled	Observations	Delivery team or community setting	Cross-sectional	Thematic analysis	FEQ 4: How did local context affect intervention delivery?
						FEQ 5: To what extent was the intervention delivered as intended?
						FEQ 6: How did complexity affect intervention delivery?
Stakeholders	All treatment population will be sampled	Observations	Delivery team or community setting	Cross-sectional	Thematic analysis	FEQ 2: How did inputs contribute to the intervention functioning?
Routine process data	All routine process data will be included	Routine data collection	N/A	Longitudinal	Descriptive statistics	FEQ 1: To what extent were the critical components of the intervention received by the target population?
						FEQ 2: How did inputs contribute to the intervention functioning?
						FEQ 3: Who did the intervention work for and how?
						FEQ 5: To what extent was the intervention delivered as intended?
						FEQ 6: How did complexity affect intervention delivery?

## Cost data reporting and collecting

The various organisations involved in the intervention delivery in each site includes Violence Reduction Units/Partnerships, police, and other statutory agencies within each area. In addition to the lead actors in each organisation, there will be an intervention lead for the intervention. This person will have overall control of the intervention and be responsible for all internal costs associated with the intervention as well as reporting expenditure to the funder on a quarterly basis, which will be shared with the evaluation team. They will also be responsible for any external costs that may be incurred in purchasing services that may be required.

The evaluation team will take a structured approach to gather appropriate information from all concerned in the intervention. The team will carry out structured scoping interviews with the intervention lead in each site using the YEF guidance principles as outlined in the [YEF Cost Reporting Principles](#) document. The evaluation team will also seek to carry out similar interviews with each service delivery lead involved in providing services to the intervention in order to understand their associated costs. These interviews will take place over the initial months of the intervention and also may be repeated as required throughout the operating term of the intervention to gauge changing costs etc.

It is our understanding, based on the team's knowledge and expertise in this field, that costs can be limited to the staffing costs associated with setting up the core delivery team. This can include team lead, analysts and key members of the team from the organisations that supply members of staff. For example, in other interventions of this nature in the UK, staff costs have been borne by the organisation supplying the staff, e.g. police officers or youth workers seconded from their parent organisation. This approach keeps costs to a minimum, with outgoing costs associated with possible building rent and materials. Again, these can be minimised with premises and materials supplied by others.

Other costs that may be incurred are associated with the possibility of having to 'buy in' services where these are not available in the local authority partners. For example, these may include anger management courses, alcohol or drugs addictions services.

It is not anticipated that the interventions will provide cash or other incentives to participate, keeping costs down.

Data relating to cost calculations will be provided by the appropriate intervention lead or service leads from each organisation involved in intervention delivery.

Cost analysis in this type of approach can be difficult to predict and analyse given the nature of the intervention. Intervention leads should be able to source appropriate services in partner organisations. Costs may arise when these services are not available due to unforeseen circumstances. By keeping an open dialogue and having regular interviews with such leads, the evaluation team will be able to report results accordingly.

## Ethics and registration

The evaluators completed and submitted all the necessary documents to the University of Hull's Faculty of Arts, Cultures and Education Ethics Committee. These included the Ethics application, a draft version of the Participant Information Sheet for each research population (i.e., intervention participants, intervention team, stakeholders) and each research method (i.e., interview, observation, survey), a draft version of the consent form for each of the populations/methods, as well as the assent form for parents/carers of those under 18. Then, we submitted a rough draft of the interview schedules, observation themes, and survey questions. Finally, we attached risk assessment documents regarding lone working and out of office hours work. All documents were approved with no modifications necessary.

Outcome data will require separate applications to the four police force areas in the study. This will require data processing agreements between the forces and University of Hull. Once the protocol has been reviewed and accepted, the trial will be registered and the ISRCTN number will be added. The results of the project will be published open access and the trial registration will include a statement on the project results.

## Data protection

The evaluation consortium (led by University of Hull) is committed to protecting the privacy and confidentiality of our study participants. As part of our commitment to data protection, we (the research team) have developed the following statement to explain how we will collect, use, store and protect personal information in relation to the Another Chance Fund multi-centre randomised controlled trial.

The research team lead is Professor Iain Brennan ([i.brennan@hull.ac.uk](mailto:i.brennan@hull.ac.uk)) and the project coordinator is Dr Tia Simanovic ([t.simanovic@hull.ac.uk](mailto:t.simanovic@hull.ac.uk)). The data protection officer for University of Hull is Angela Clement ([dataprotection@hull.ac.uk](mailto:dataprotection@hull.ac.uk)).

### Collection of Personal Information

The study includes two forms of data collection that could include personal information.

1. Qualitative accounts of participation: We will collect personal information from study participants during the recruitment process for the study to allow us to set up interviews. Individuals will be asked to consent to the sharing of their contact details with the research team. This information may include participant name, age, gender, address and phone number. We will only collect the minimum amount of personal information necessary to contact the participant for interviews and/or observations of intervention delivery, including obtaining parental assent to contact participants, and will ensure that all personal information is collected in compliance with applicable laws and regulations. This information will be stored separately from any other data collected through the study, which will prevent the participant's identity from being linked to study data.
2. Police records: We will also obtain personal information about study participants through a data sharing agreement with the four police forces involved in the study, West Midlands Police, Greater Manchester Police, Leicestershire Police and Nottinghamshire Police. This personal information will include information on criminal records. The information will not contain any names, full dates of birth or address details but it will include individual ethnicity. The information will be linked to process data collected by the intervention delivery teams through a unique identifier.

### Use of Personal Information

We will only use your personal information for the purposes of the study. This includes retrospectively assessing eligibility and analysing the results. Individuals will only be identified using a unique reference number: names, date of birth or full post codes or other information that could be used to identify a person will not be available to us. The personal information will not be used for any other purpose.

### Storage and Protection of Personal Information

All personal information collected for the study will be stored securely and confidentially in a secure data safe haven which is only accessible to the evaluation team through a two-factor authentication process. We will take all reasonable steps to ensure that your personal

information is protected against unauthorised access, loss, misuse or disclosure. Personal information will be stored for ten years after the end of the trial.

### **Your rights**

You have the right to access, correct, update or delete your personal information held by us. You also have the right to withdraw your consent for the use of your personal information at any time. As we will not be able to identify you in our data set, if you wish to exercise any of these rights, please contact the relevant police force.

### **Legal basis**

We will process personal information about trial participants under the UK General Data Protection Regulation (GDPR) and the Data Protection Act (2018).

Under the UK General Data Protection Regulation (GDPR) Article 6, processing personal data in the absence of individual consent is permitted if it is necessary for the legitimate interests pursued by the controller or a third party, except where such interests are overridden by the interests, rights, or freedoms of the data subject, as outlined in Article 6(1)(f). The Data Protection Act 2018 further clarifies that legitimate interests can include commercial interests, individual interests, or broader societal benefits, but the processing must be necessary and balanced against the rights and freedoms of the data subject (Section 8(1)(f)).

Individual ethnicity is a form of 'special category' data that requires additional justification. Article 9(j) of UK GDPR provides a condition whereby individual ethnicity can be processed on the basis of Archiving, research or statistics. In addition, the use of ethnicity in this study is to assess for equality of opportunity and treatment across ethnicity groups.

We have assessed the applicability of the legitimate interest basis for processing personal information and identified that the processing is necessary and that individual interests do not override the legitimate interest.

### **Legitimate interest**

We are processing the data to address a research question that cannot be answered sufficiently using self-report or other sources of information about violent behaviour. The benefits from processing this information relate to advance understanding of the effectiveness of violence prevention activity that could reduce violent harm in society. In the absence of this processing, there is a potential that violence prevention activity would be misdirected or harmful to society. Our study has received ethical approval from University of Hull and we will use a very high standard of data security to prevent the risk of any data loss or disclosure. The AIMES Data Safe Haven product is NHS Digital Toolkit and ISO27001:2013 compliant.

Necessity: Processing personal information about violent offending is the most suitable process for determining the effectiveness of violence prevention initiatives. Police records are a standardised and well-documented indicator of violent offending that are consistently used to measure the impact of interventions. The application of a highly rigorous randomised controlled trial methodology mean that the processing of the data provides the best possible indication of the effectiveness of these interventions. Other approaches, such as using self-reports on offending, offer value about individual experience, but suffer from

risk of response bias and low response in a way that undermines their suitability as a source of information for testing the average effect of the intervention.

**Balancing:** The research team processing the data will have no relationship with the individual and will not be able to link personal information with any individual. The data are highly sensitive and private, but the steps taken to guard the identity of the individual through the use of a unique identifier and the absence of other personal information, combined with the high levels of information security protocols that will be employed and a legal agreement between the data controlling police force and the University of Hull, provide suitable levels of protection of personal information. There is a societal expectation that Universities undertake research to improve societal wellbeing and security, which may include the processing of personal information using appropriate safeguards to protect individual identities, including those of children. As the data provided to us will not include any personal identifiers, we are unable to offer an opt-out for the processing of personal data as identifying individuals would not be possible. Any opt out would be required at the point of the original data controller, the relevant police force.

### **Data processing**

Data on police records will be shared by the four police forces with the research team at six monthly intervals. Under the terms of data sharing agreement, a data set will be uploaded to a secure 'airlock' provided by AIMES Ltd., a third party data security provider. The data set will be linked to records supplied by the intervention delivery teams using a unique identifier. The data set will be used to generate descriptive statistics and to analyse the effect of the programme on violence outcomes. The data will be processed at pre-defined intervals in accordance with the project statistical analysis plan. All processing will take place within the Data Safe Haven platform and only summary statistics and images will be extracted from the secure environment in accordance with University of Hull Data Safe Haven procedures. To facilitate the potential for follow-up analyses, the data will be stored in the Data Safe Haven facility for ten years following completion of the project in 2026.

## **Stakeholders and interests**

### **Developer and delivery team leads:**

Nottingham - Steve Harrison, Nottingham and Nottinghamshire Violence Reduction Partnership

Leicester - Grace Strong, Leicester, Leicestershire and Rutland Violence Reduction Network

Manchester – Adele Adjetey, Greater Manchester Combined Authority

Coventry - Daryl Lyon, West Midlands Police

Wolverhampton - Daryl Lyon, West Midlands Police

### **Evaluation team**

Professor Iain Brennan (University of Hull) - project lead

Dr Tia Simanovic (University of Hull) - project coordinator

Dr Alex Sutherland (Independent researcher) - summative evaluation lead

Dr Paul McFarlane (University College London) - formative evaluation lead

Dr Will Graham (University of Abertay) - delivery lead.

### **Stakeholders**

Youth Endowment Fund - Project funders

### **Funding**

The project funding is provided by Youth Endowment Fund's Another Chance Fund 1 scheme. Youth Endowment Fund contributed to discussions about the study design and made a recommendation to their Grants and Evaluation Committee about the provision of continued support for the project to progress to the Implementation and Evaluation stages. Youth Endowment Fund have reviewed the project evaluation strategy documents but will not contribute to any conduct, analysis or reporting of the trial except to make comments on report drafts at different stages of the evaluation.

## Risks

**Table 9. List of risks to the evaluation and the control measures in place**

<i>Hazard Identified</i>	<i>How might someone be harmed?</i>	<i>Rating (H, M, L)</i>	<i>Existing Control Measures</i>
<i>Sensitive interview material discouraging participation in evaluation</i>	<i>Emotional discomfort through discussing personal experience of being involved in (group) violence</i>	<i>M</i>	<p><i>Given the topic of this evaluation, there is a small risk of causing distress to research participants when enquiring about their history of violence and gang involvement, which might discourage them from participation.</i></p> <p><i>To mitigate this, the participants will be signposted to relevant services through Participant Information Sheet (PIS) and the interviewers will be instructed to constantly monitor visual cues of discomfort, offer participants a break or a glass of water, and act in their best interest, even if that means pausing or terminating the interview.</i></p> <p><i>Likewise, because the target research sample includes young people (those aged 14+), they will be given a choice to have a trusted adult with them during the interview, if they so wish. This will be asked confidentially, to avoid being coerced by that “trusted” adult into having them present.</i></p>



<p><i>Working with young participants (14-18 years of age)</i></p>	<p><i>Emotional discomfort, unwillingness to share experiences</i></p>	<p><i>M</i></p>	<p><i>A proportion of the target sample will be young people who were engaged with the intervention that the team is evaluating. While this could incur distress, it is an opportunity for those young people to have their voice heard and to contribute to the development/ improvement of the intervention offered to support (young) individuals in disengaging from group violence.</i></p> <p><i>Having a member of the evaluation team frequently present on site will help with building rapport with the participants. Likewise, clear and open communication about the purpose of the study, as well as keeping the participants engaged and discussing ways in which their participation could help other (young) people involved in violence should further enhance their engagement.</i></p>
<p><i>Differential outcomes</i></p>	<p><i>Differential outcomes not detectable</i></p>	<p><i>M</i></p>	<p><i>It has been well documented that minoritised ethnic groups have worse experience of statutory service provision, often have worse social outcomes than other ethnic groups and are disproportionately over-represented in criminal justice records. The project team is conscious of these differing outcomes and will seek to detect and describe them should they be present. A risk to this is that there may be insufficient statistical power to detect modest but important differences in outcomes or to detect differences at meaningful categories of ethnicity. This risk will be mitigated by using all available data – quantitative and qualitative – to describe differences across ethnic groups and to note the potential existence of differences where data are ambiguous.</i></p>

<p><i>Work patterns (i.e. working out of hours).</i></p>	<p><i>Less direct supervision and availability of support in out of hours, which could make recruitment of research assistants more challenging.</i></p>	<p><i>L</i></p>	<p><i>There is a slight chance that researchers will need to work out of hours, depending on the availability of the interviewee. This will be stipulated in advance and discussed with the researcher as one of the requirements of their employment. However, this could also be attractive to potential candidates, as it could provide more flexibility and opportunity to manage one's time beyond the typical office hours.</i></p>
<p><i>Other (data protection issues)</i></p>	<p><i>Data loss/breach of confidentiality</i></p>	<p><i>L</i></p>	<p><i>Given that the evaluation team will receive routine delivery logs, administrative data, and other process data from the sites, there is a slight risk of data loss/breach. To mitigate that, all data will be anonymised at source, prior to data transfer. Likewise, strict protocols will be used to ensure safe data transfer and no information will be delivered via USB sticks, external hard drives, or other physical devices that could be lost or stolen. Data sharing agreements will be in place prior to any data transfer.</i></p>
<p><i>Lack of statistical power leading to failure to accurately estimate programme effects</i></p>	<p><i>No direct harm to individuals</i></p>	<p><i>M</i></p>	<p><i>Power calculations have demonstrated that for a 20% reduction in the number of violent offences in the treatment group to be detected (relative to the control group), a sample size of approximately 2,300 is required. As larger effect sizes are unlikely, the evaluation is aiming for this sample size. It will seek to achieve this by pooling the data from all seven trials.</i></p>

<p><i>Site-level trials deemed too heterogeneous to pool as a multi-site trial</i></p>	<p><i>No direct harm to individuals</i></p>	<p><i>M</i></p>	<p><i>We intend to pool individual-level data from sites into a single multi-site trial. This requires homogeneity in the intervention and trial designs but this homogeneity is not clearly established for complex interventions of this nature and is, arguably, impractical. While statistical adjustments can be made to account for inter-site heterogeneity, external reviewers may deem these insufficient to justify a pooled approach. A mitigation for this is to meta-analyse the seven trials. Although the smaller sample sizes would limit the potential to detect statistically significant effects, the overarching meta-analysis, informed by the formative evaluation work, would provide an indication of the overall effectiveness of the interventions.</i></p>
<p><i>SUTVA violations</i></p>	<p><i>No direct harm to individuals</i></p>	<p><i>M</i></p>	<p><i>Randomising individuals who offend within groups may result in contamination or Stable Unit Treatment Variable Assumption (SUTVA) violations that limit the extent to which causal inference can be made. To an extent, this is a perpetual risk in complex interventions that must be tolerated but acknowledged in the project outputs. We will use the formative evaluation process – primarily the interviews with participants - to examine the presence of contamination.</i></p>

## Timeline

**Table 10. Timetable**

Dates	Activity	Staff responsible/leading
Implementation + 4 weeks	Registration of trial	Iain Brennan
Implementation + 12 weeks	Data sharing agreements with police forces	Iain Brennan
Weekly Implementation launch to end of delivery	<p><b>Weekly evaluation activity in each sites (cycling through sites)</b></p> <p>(1) Interviews with project delivery teams            (2) Observation of project delivery team meetings            (3) Interviews with participants            (4) Observation of intervention activity</p>	<p>Coordination: Tia Simanovic            Activity: Project research assistants</p>
Randomisation commencement at last site + 9m	<p><b>Completion of YEF pilot reporting template</b></p> <p>(1) Assess the direction and magnitude of treatment effects at six months            (2) Identify any harms in terms of extreme outcomes and qualitative accounts of harm            (3) Determine the likely throughput and achievable sample size            (4) Assess for violations of randomisation            (5) Assess the proportionality of study selection and outcomes across ethnic groups            (6) Describe patterns in support engagement and enforcement activity            (7) Generate interim report</p>	<p>Coordination: Iain Brennan            Activity: Iain Brennan, Alex Sutherland, Paul McFarlane, Will Graham and Tia Simanovic</p>
Implementation launch + 15m	<p><b>Annual report</b></p> <p>(1) describe programme activity            (2) assess and evaluate intervention fidelity            (3) revise programme-level and site-level theories of change            (4) evaluate programme using proximal outcomes            (5) review evaluation procedures</p>	<p>Coordination: Iain Brennan            Activity: Iain Brennan, Alex Sutherland, Paul McFarlane, Will Graham and Tia Simanovic</p>
Delivery end + 18m	<p><b>Final report</b></p> <p>(1) Completion of <a href="#">YEF trial reporting template</a></p>	<p>Coordination: Iain Brennan            Activity: Iain Brennan, Alex Sutherland, Paul McFarlane, Will Graham and Tia Simanovic</p>

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## Appendix 1. Youth Endowment Fund Focused Deterrence Framework

Essential	Flexible	Notes
1. Focused deterrence must address Serious youth violence, where there is a clear group dynamic	1. Crime problem itself is flexible	By group dynamics, we mean the way members of a group interact with each other (including group norms) and/or the way members interact with other people, or with other groups (for example, retaliating against others). Example crime problems are violent and non-violent crimes such as homicide; knife crime; violence with injury; drugs offences; and weapons carrying
2. Focused deterrence must be targeted to those associated with groups involved in serious youth violence	2. People of any age may receive focused deterrence-related interventions	To be effective, people involved in driving group dynamics should be included in focused deterrence interventions – these individuals may be older group members and have the most influence on how other group members engage with the intervention.
3. Focused deterrence must include an interagency working group made up of law enforcement, community and support services representatives	3. The type of support services can be adapted to local need.	3i) The working group should include members who have experience of violence prevention and who are able to make commitments (for example, related to budget or staffing) on behalf of their organisation. 3ii) The group should include senior police officers. 3iii) Support representatives on the group should act as single point of access for all support providers in the programme. 3iv) The group should be led by a programme manager who is respected by the community and the police, to balance the different deterrence, community and support goals. 3v) There should be sufficient preparation to support effective agency collaboration, including understanding of roles, co-responsibilities and timelines. 3vi) The group should be committed to repairing harm in the community and changing policies and practices to better support young people. 3vii) The group should deliver staff training to ensure consistent and effective delivery across their individual teams.
4. Focused deterrence must include high quality, structured intelligence gathering and analysis		4i) Intelligence gathering and analysis must gather and assess information, about who and what is driving serious youth violence. The purpose of collecting this information is to support the development of a strategy that meaningfully addresses local issues. 4ii) The intelligence gathering should be police-led with strong inter-agency and community collaboration. Data gathering will usually involve the most knowledgeable personnel and units connected to violent crime, as well as practitioners who have the most knowledge of and experience working with children and young people involved in violence. 4iii) The process of gathering and collating intelligence in new ways could involve additional research expertise (e.g. universities) 4iv) Information should include: details about local groups associated with violence (e.g. group names, territories, numbers of members, alliances.) incident reviews, which assess the link between groups and recent fatal (and nonfatal) violent incidents in the area social network analysis, to illustrate how group members are connected to each other, through contacts or arrests. 4v) Intelligence should draw on mixed methods (quantitative and qualitative data). Quantitative information might assess crime locations and concentrations, the demographics of those involved in crime, street network configurations, weapons used and so on. Qualitative information will need to be gathered by front-line practitioners (including the police and probation officers, youth justice workers and street outreach workers,) to capture the context of violence (for example, who the most influential and/or violent group members are, where groups are active) 4vi) Information and intelligence gathering relationships, processes and protocols must be sustainable. 4vii) Intelligence should be accurate and responsive to the changing dynamics of group violence; getting this wrong could compromise

		legitimacy. 4viii) Data should (where possible) be organised and analysed using statistical analysis software.
5. Focused deterrence must include a special enforcement operation that is swift, certain and includes group consequences	The way that enforcement happens (and the consequences of being involved in violence) can be flexible.	5i) The enforcement operation must not happen before scheduled communication with those people identified as being involved in crime and violence. 5ii) There are legal restrictions in the UK with regards to collective enforcement. This should be considered when considering group consequences in the case that a crime takes place. 5iii) Consideration should be given on how to deal with relapses most appropriately, especially in the early stages of a project. 5iv) Collective enforcement on group members could include educational approaches (for example, sessions with group members and the police to learn about the consequences of violence) or anti-violence community messaging.
6. Focused deterrence must include direct and frequent communication with target groups	6i. A partnership's communications strategy can be flexible 6ii) the use of call-ins is flexible	6i) Messages around the focused deterrence project should be unified across local police, and support services, and should be delivered to all members of the local community. 6ii) If the approach is using 'call-ins', these meetings should be reinforced (for example, through visits to group members' homes). 6iii) Additional communications can also be used to reach group members who do not attend call-ins. 6iv) Before holding a call-in, research should be undertaken to make sure that dynamics within the meeting are well-managed 6v) Communications must provide evidence on why specific groups are the focus. 6vi) Call-in meetings should take place on neutral territory and high numbers of visible police are not recommended. 6vii) For children and young people under 18, delivery of communications should involve parents, child-centred police officers, support providers, influential community representatives and peers who have been affected by youth violence. Call-ins should not involve children and young people under 18. 6viii) Communications need to acknowledge that effectively preventing violence requires organisations and statutory bodies to work differently to how they have in the past. 6ix) When communicating, consideration should be made about discrimination that communities may have experienced when accessing services or in contact with the criminal justice system. The partnership's commitment to equality and change should be upfront.
7. Police partner: to deliver open, transparent and respectful policing and communicate swift, certain, and credible consequences of violence		7i) Getting police buy-in to the strategy is essential, this includes buy-in to the collective aim and the co-responsibilities across the inter-agency working group. 7ii) The role of the police should be clear. This will help the partnership avoid potential confusion about the role of focused deterrence in providing support for those involved in crime and violence. 7iii) Officers should have local ties to the places where group members live
8. Support services partner: to coordinate and mobilise a breadth of services with fast response times	8. Available support services should be adapted to local needs.	8i) The lead partner must have the ability to co-ordinate and mobilise a breadth of key services and support. This support could include housing; family support; counselling; education or employment opportunities. 8ii) The lead partner must be able to access information from all other support providers. 8iii) The lead partner must have the ability to report and track the engagement, progress and outcomes of the people receiving support. 8iv) The lead partner must have the ability to provide or refer a young person to immediate and meaningful support (for example, immediate protection from harm, providing food, clothing, shelter or assistance with outstanding warrants.). 8v) Support partners may include both statutory and voluntary sector organisations.
9. Community partner/s: to express norms, expectations and aspirations, support violence prevention and	9. The extent of community role will depend on local context	9i) The community partner should have high moral standing and credibility with young people. 9ii) There should be genuine opportunities for community members to voice their experiences and narratives. 9iii) The work of the partner should involve a community 'warm-up' period, where information about the focused deterrence strategy is spread through multiple methods



increase engagement in support services.		(for example, door knocking leafleting, or presence at local events. 9iv) The community need to be involved before any other element of focus deterrence goes ahead. 9v) Work with the media to make sure any communication is accurate and sensitive to communities. Do not do any proactive media engagement before speaking to communities.
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## Appendix 2. Reproducible power simulations

```
# FD ACF1 power calculations
# Simulation for negative binomial regression (count variable)

library(MASS)
library(tidyverse)
library(plyr)

# Set up and practice run

set.seed(422) # set seed for reproducible analyses

#### Set these to change the sample size, effect size and data distributions ####

# Count variable
n <- 1700 # total sample size
alpha <- 0.05
d <- 0.75 # change in intervention group relative to control group
num_sims <- 100
mean <- 1 # mean of negative binomial outcome
var <- 1.5 # variance of outcome (>1 to be overdispersed )

####

##### Don't change anything below this line #####

id<-seq(1,n,1) # create ID variable beginning at 1
t1_outcome<-rnbinom(n, size= var, mu = mean) # create negative binomial baseline outcome
condition = sample(c(0,1), replace=TRUE, size=n) # randomly allocate each case to treat/ctrl
t1_risk = t1_outcome + rnorm(n, sd = sqrt(var) * 1.2) # generate 'risk' variable correlated with baseline
outcome
risk = cut(t1_risk, breaks = c(-Inf, 2.5, 5, Inf), labels = c("low", "medium", "high")) # turn t1_risk into integers

# Quick check on correlation between risk and baseline
risk_numeric <- as.numeric(risk)
cor(t1_outcome, risk_numeric)

##test that simulated data and model are functioning

# Simulate one data set
simdata<-as.data.frame(cbind(id, condition, t1_outcome, risk)) # create data frame

simdata <- simdata %>%
  mutate(t2_outcome = ifelse(condition==1, t1_outcome*d, t1_outcome))

# simdata <- simdata %>%
#   mutate(t2_outcome = round(ifelse(condition==1, t1_outcome*d, t1_outcome),0))

# Run model once
reg<-glm.nb(t2_outcome ~ condition + t1_outcome + risk, data = simdata) # regression equation

# Outputs of model
summary(reg) # get outputs of model
```

```

output<-summary(reg)$coefficients # get object containing model coefficients
coefs<-output[,1] # create object with coefficients
ps<-output[,4] # create object with p-values
results<-c(coefs, ps) # merge coefficients and p-values

names(results)<-c('Intercept_coef', 'condition_coef', 't1_outcome_coef', 'risk_coef', 'Intercept_p',
'condition_p', 't1_outcome_p', 'risk_p') # give useful names to results

results # output results to check

mean_control <- simdata %>%
  filter(condition==0) %>%
  summarise(mean = mean(t2_outcome))
mean_intervention<-simdata %>%
  filter(condition==1) %>%
  summarise(mean = mean(t2_outcome))
sd <- sd(simdata$t2_outcome)
cohen_d <- (mean_control - mean_intervention)/sd
cohen_d

## Create function that simulates data and runs model sims number of times

# generate a function 'regression_sim' that simulates the data, runs the regression model and stores estimates
and p-values

set.seed(123)
regression_sim <- function(simNum, n, b0, b1, b2, b3, p0, p1, p2, p3) {

  id<-seq(1,n,1) # create ID variable beginning at 1
  t1_outcome<-rnbino(m, size= var, mu = mean) # create negative binomial baseline outcome
  condition = sample(c(0,1), replace=TRUE, size=n) # randomly allocate each case to treat/ctrl
  t1_risk = t1_outcome + rnorm(n, sd = sqrt(var) * 1.2) # generate 'risk' variable correlated with baseline
outcome
  risk = cut(t1_risk, breaks = c(-Inf, 2.5, 5, Inf), labels = c("low", "medium", "high")) # turn t1_risk into integers

  simdata<-as.data.frame(cbind(id, condition, t1_outcome, risk)) # create data frame
  simdata <- simdata %>%
  mutate(t2_outcome = round(ifelse(condition==1, t1_outcome*d, t1_outcome),0))

  # Run model once
  reg<-glm.nb(t2_outcome ~ condition + t1_outcome + risk, data = simdata) # regression equation

  # Outputs of model
  summary(reg) # get outputs of model
  output<-summary(reg)$coefficients # get object containing model coefficients
  coefs<-output[,1] # create object with coefficients
  ps<-output[,4] # create object with p-values
  results<-c(coefs, ps) # merge coefficients and p-values

  names(results)<-c('Intercept_coef', 'condition_coef', 't1_outcome_coef', 'risk_coef', 'Intercept_p',
't1_outcome_p', 't1_outcome_p', 'risk_p') # give useful names to results

  return(results)
}

```

```

}

# regression_sim(1, n, b0=results[1], b1=results[2], b2=results[3], b3=results[4], p0 = results[5], p1 = results[6],
p2 = results[7], p3 = results[8]) # set parameters for one simulation

sims<-ldply(1:num_sims, regression_sim, n, b0=results[1], b1=results[2], b2=results[4], b3=results[5], p1 =
results[6], p2 = results[7], p3 = results[8]) # create a dataframe called 'sims' that holds the results of the
simulations

power<-sum(sims$condition_p<0.05)/num_sims # power is the proportion of p-values for 'condition' that are
less than 0.05
power # calls 'power'

sims %>%
  ggplot(aes(x=condition_p)) +
  geom_histogram(binwidth=0.005, aes(fill = condition_p<0.05)) +
  xlab("Distribution of simulated p-values") +
  ylab('Frequency of p-values') +
  labs(title = paste0("Simulated power calculation", ' n=',n, ' d=', d, ' simulations=', num_sims)) +
  annotate("text", x=0.75, y=200, label= power, size=10)

ggsave(paste0("Simulated power calculations", ' n=',n, ' d=', d, ".png"))

```

## Appendix 3: Reproducible randomisation code

```
# Another Chance multisite trial randomisation using randomizr

library(randomizr)
library(tidyverse)
library(janitor)

# Assumes that 'filename.csv' is a file containing three columns:
# Unique_ID that is a character vector of alphanumeric IDs specific to the programme and is unique to each
individual who meets the eligibility criteria for inclusion in the trial
# Current_age: A vector of integers representing the age in years of each individual in the programme
# Offence_count: A vector of integers representing the number of offences attributed to the individual in the
past two years

# The code:
# (1) cleans the file names
# (2) prepares a binary variable for age/child status (adults are >= 18yrs)
# (3) identifies tertiles for number of offences
# (4) creates a new ordinal variable 'offence_frequency' (low/medium/high) that corresponds to these tertiles
# (5) creates strata based on these two variables
# (6) creates a vector 'random_assignment' that randomly assigning cases to treatment or control within the
strata
# (7) binds the list and random assignment
# (8) writes the list to a .csv files with a name that is the site name and the date of randomisation

site_name <- read.csv('filename.csv') %>%
  clean_names() %>%
  rename(age = current_age,
         offence_count = offence_count)

tertiles <- quantile(x, probs = c(1/3, 2/3), na.rm = TRUE)

site_name <- site_name %>%
  mutate(adult = as.factor(ifelse(age>17, 'yes', 'no')),
         offence_f = as.factor(case_when(
           offence_count < tertiles[1] ~ 'low',
           offence_count >= tertiles[1] & offence_count < tertiles[2] ~ 'medium',
           offence_count > tertiles[2] ~ 'high'))) %>%
  dplyr::select(id, adult, offence_f) %>%
  na.omit()

set.seed(34567)

# Create a stratification variable based on 'age', 'offence_frequency', and 'supervised'
strata <- paste(site_name$adult, site_name$offence_f, sep = "_")

# Randomly assign treatment and control within each stratum
random_assignment <- block_ra(blocks = strata, conditions = c("treatment", "control"))

# Combine the random assignment with the original data
site_name_with_assignment <- cbind(site_name, random_assignment)

# View the updated dataframe
```

```
head(site_name_with_assignment)

# Limit the data frame to id, adult, offence_f and random_assignment
site_name_with_assignment <- site_name_with_assignment %>%
  dplyr::select(id, adult, offence_f, random_assignment)

# Create a dated file name
filename <- paste0("site_name_with_assignment_", format(Sys.Date(), "%y%m%d"), ".csv")

# Write the data frame as a .csv file with a dated filename
write.csv(site_name_with_assignment, filename, row.names=FALSE)
```