



Characteristics of Public Health Approaches for Youth Violence Prevention (PH-VP)

A Rapid Review



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Summary

Violence is a significant concern that disproportionately affects young people and that contributes to a range of individual and community-level harms. Decades of evidence has shown that prevalence and impact are complex and multi-faceted. Both are associated with a range of negative outcomes impacting greatly on public health. Since the 1980's there have been increasing calls for a science-based approach that recognises the complexity, but also that demonstrates the promise of prevention. Public health for violence prevention (PH-VP) has emerged as a leading paradigm and one that has both conceptually and operationally helped to facilitate community coalitions around a common goal. Despite this increasing interest, few studies have sought to capture the central characteristics of such an approach, thus inhibiting its wider application and refinement.

Understanding potential variation in how PH-VP is conceptualised and how it is applied is important for prevention. Thus, the primary aim of the current study is to synthesise the evidence around the characteristics of PH-VP in real-world settings.

From a total of 754 sources identified, 101 sources were retrieved for full appraisal. After a further 41 were excluded on the basis that there were either the wrong population or the wrong focus a total of 60 sources were included in the current review (see fig. 2). Following analysis, a number of overarching themes emerged as key characteristics of PH-VP.

These included: *priorities; principles, policies, practices and programmes*-summarised here as '*the five P's of public health for violence prevention (PH-VP)*'.

The review found that across the literature, public health for violence prevention publications appear to have remained fairly dogmatic since the 1980's, providing few opportunities to critically engage with the structure, content and impact, and thus tempering opportunities to enhance them further. Despite a number of descriptive overviews, for the most part, the implementation factors that have been implicated in increasing the feasibility and acceptability of evidence supported responses, such as '*adaptability*' (the ability of the new organisation to be understand the various levels of change needed in order to successfully replicate the chosen programme), and '*compatibility*' (the contextual appropriateness of the host agency selecting a particular programme to address a well-defined problem) are largely missing from the literature.

Evidence from this review also found that communities often struggle to understand how a package of evidence-based programs can fit together to create a strategic, sustainable, evidence-based comprehensive approach. They are challenged with: collecting and using data to make decisions about programme selection and impact; achieving consensus on the prioritized problems and the solutions; how to implement the programs with fidelity; how to create environments for evidence-

based programmes to survive; and, when this approach involves multiple sectors and agencies (e.g., community, academia, justice, health, education), who has the authority and responsibility for ensuring its success.

As evidence has advanced, this combined literature included as part of this review suggests that there is likely to be a need to be more specific and conscious with regard to the approach to implementation and that the dogmatically accepted four-step sequential process model does not sufficiently capture the complexity of prevention responses. While comparisons have been made between

disease containment and violence prevention, one stark difference is that violence does not have an easily identified '*patient zero*'. Rather than an index case the proximal antecedents of any incident of violence is likely to be significantly more complicated with multiple and interacting factors not as easily understood with reference to the public health four-step model.

Despite the current consensus, and some degree of excitement, an implementation perspective is required, and that with further reflection, the true utility of these approaches may become more apparent.

Introduction

Violence is a significant concern that disproportionately affects young people and that contributes to a range of individual and community-level harms. Decades of evidence has shown that prevalence and impact are complex and multi-faceted. Both are associated with a range of negative outcomes impacting greatly on public health. Since the 1980's there have been increasing calls for a science-based approach that recognises the complexity, but also that demonstrates the promise of prevention. Public health for violence prevention (PH-VP) has emerged as a leading paradigm and one that has both conceptually and operationally helped to facilitate community coalitions around a common goal. Despite this increasing interest, few studies have sought to capture the central characteristics of such an approach, thus inhibiting its wider application and refinement.

Understanding how PH-VP is understood both as a concept and how it is applied is important for prevention. Thus, the primary aim of the current study was to synthesise the evidence around the characteristics of public health approaches for youth violence prevention.

The burden of violence

Violence, commonly defined as the intentional use of physical force or power, threatened or actual, against oneself, another person, or a group or community, which either results in or has a high

likelihood of resulting in injury, death, psychological harm, mal-development, or deprivation (WHO, 2014) is an enduring burden on communities and the lives of those living in those communities (WHO, 2020). Exposure to violence, both directly and indirectly, increases the risk of a range of psychosocial outcomes (Fowler et al., 2009). Younger people are particularly vulnerable to exposure to violence and its outcomes (Hillis et al., 2016). Homicide, for example is the fourth leading cause of death in young people aged between 10 and 29 years of age and non-fatal youth violence also has serious and often lifelong impacts on victims' physical and social functioning (WHO, 2020). However, there is also a high degree of variability in the risk of exposure (Wilson & Chermak, 2011), with some communities at elevated risk when compared to others. Even within those communities, some individuals appear to be at greater risk of exposure than others (YEF, 2022).

Protecting children and young people from all forms of violence is a fundamental right (Hillis et al., 2016; UNICEF, 2022) - a goal that is implicitly embedded within the Sustainable Development Goals (SDGs). Understanding, reducing and preventing violent victimisation is a core Sustainable Development Goal target (SDG 16.1) and is included in no less than six Articles of the UN Convention on the Rights of the Child (*Article 6: Right to life, survival and development; Article 19 Right to protection from all forms of Violence; Article 33 Protection from dangerous drugs and from*

being involved in making or selling these drugs; Articles 34 and 36 Exploitation and; Article 39 Rehabilitation of child victims). Attaining these global commitments requires action and action requires understanding. Globally, however, few countries appear to have adequate information systems to monitor non-fatal violent injuries (Pinheiro, 2006). Furthermore, most empirical studies do not report their findings using age categories that comply with the definition of the child in the (CRC) as a person aged between 0 and 18 years. Further, in their systematic review of Violence Against Children Surveys (VACS), Nace et al (2022) found that of the 50 studies examined across 22 countries, only two focused on physical violence.

Monitoring exposure to violence

Of the reliable data available, it is estimated that more than one billion children are victims of physical violence each year globally (WHO, 2020), with 12-month prevalence rates of violent victimisation estimated to be around 12% for all age groups (2-17). In the United States, the National Survey of Children Exposed to Violence (Finkelhor et al., 2015) found that 41.2% of youth had experienced any form of physical violence in the previous 12 months. This rate of exposure was higher when all age groups (2-17) were taken into account rather than limited to the older age group (14-17), however, assault with injury was more common across older youth. 6.2% had reported being the victim of violence where a weapon was used. Lifetime prevalence was higher for any form of physical violence than for the 12-month point prevalence. Boys were significantly more likely to experience any form of violence (45.2% vs 37.1%) and violence related injuries than girls (13% vs 7.1%). One of the most consistently recorded comparative health related data, the Health Behaviour in School-Aged Children (HBSC), is undertaken across the EU,

with multiple sweeps every four years in Ireland, Scotland and England. In one of the most recent national reports, the survey was facilitated with more than 4000 pupils across three age groups (11, 13 and 15) in England. The authors found that 17% had reported being involved in two or more physical fights in the previous 12 months, and again, that boys were at significantly greater risk (Brooks et al., 2020), and in another representative English study, with 5% of youth were estimated to have been attacked with a weapon, and 39% were estimated to have been witness to community violence (YEF, 2022). Despite some evidence that post-conflict societies may observe higher rates of violent victimisation than other societies (Obradovic-Tomasevic et al., 2019), only a limited number of studies have sought to estimate prevalence. In one study involving a sample of Belfast youth, lifetime exposure to any violent crime was estimated to be 17% (McAloney et al., 2009), and a more recent representative study found that the 12-month prevalence rate for violent victimisation was 9% (Bunting et al., 2020).

Public health prevention

Public health has been defined as the science and art of preventing disease, prolonging life, and promoting health through community efforts (PHE, 2019). Given the ubiquity and impact of violence, the issue has been identified as a significant public health issue (WHO, 1996; Krug et al., 2002; Lam et al., 2021). Traditionally applied to contain the spread and prevention of disease and infection, there has been growing interest in the utility of applying the same public health approaches to understand and respond to community violence (Whitehill et al., 2014). Public health is primarily concerned with population health (Mercy et al., 1993) and given that violence, although affecting individuals, also affects wider society (PHE,

2019), public health responses do appear to have significant utility (Masseti and Vivolo, 2010)

Prevention rather than reaction is one of the key distinguishing features of the public health approach (Moore, 1995; PHE, 2019). With its roots in the report of the US Department of Health and Human Services (1985) and the declaration at the World Health Assembly in 1996 (WHA, 1996), both of which suggested that violence was a leading public health problem, the upstream-downstream focus on prevention has been critical to the range of responses. To public health advocates, violence reflects intentional injury, thus something that can not only be prevented but can be conceptually nested within the wider category of health problems that include disease and injuries (Mercy et al., 1993). Through this lens, violence is viewed not as a result of individual pathology but as an outcome of complex and interacting social, and economic factors (Dartington Trust and RIP, 2022). This is fitting given the association between violence and the onset of various morbidities (Rutherford et al., 2007). Thus, for many public health advocates, the framing of violence outside of the criminal justice lens is more than semantics - it actually reflects the evidence (Moore, 1995).

Given its complexity, geographical and demographic heterogeneity, and differential impacts, those working in the field of violence prevention argue that there is a need to weaken or break the chain of events that lead to violence, and given that quite often we do not know exactly why people behave violently within the context of isolated events or incidences, we need to learn much more about the wider causes of violence in society and the things that can make communities safer (CDC, 1993). This is not a luxury - it is a public health commitment, embedded within national and international Conventions such as the Sustainable Development Goals.

Public health responses are generally assumed to involve four key elements: problem identification through surveillance; risk analysis to identify who is most at risk and why, the implementation of evidence informed activities directly targeted the contextually appropriate drivers of violence -all with the input from across multiple sectors (Dahlberg and Krug, 2002; WHO, 2021), and scaling up responses for a systemic impact (see fig. 1)

Communities themselves cannot sufficiently address violence if they do not adequately understand its presence (where, who, when) and the factors contributing to it (why) (Hawkins, 1999; Bowen et al., 2004). Like any other public health for prevention venture:

“the public health model for prevention of disease and disorder involves assessing the epidemiology of the targeted problem, identifying risk factors associated with the problem, applying interventions known to reduce these risk factors and enhance protective factors that buffer against the effects of the risk, and monitoring the impact of these interventions on the incidence and prevalence of the targeted disease or disorder” (Hawkins, Catalano and Arthur, 2002: 952)

Another necessary element of public health is implementation, and it is in this area that little evidence currently exists. In theory, the data that is gathered by the team is analysed and interpreted. Based on the collective appraisal of that evidence, a response, or series of activities are proposed to address the problem. Intervention is therefore core to a public health response. For example, it might be a specific intervention such as Cure Violence or Safe Streets (Whitehill et al., 2014) or it could be an evidence informed approach. Whatever the

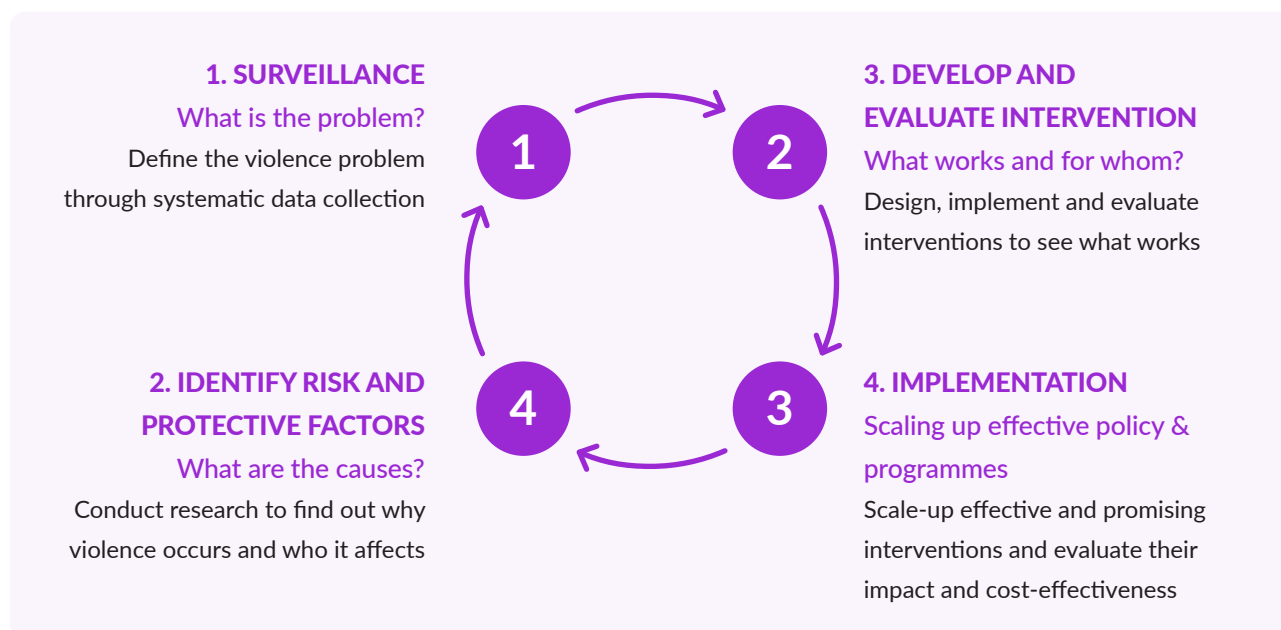


Figure 1: Public health for violence prevention (WHO, 2021)

'package', public health interventions are generally intended to address a change in attitude/knowledge/skills; contribute towards a change in the social environment; or lead to a change in the physical environment (Mercy et al., 1993). Clarity around the primary outcome and the mechanism of change envisaged is important for when implementation teams seek to evaluate process and/or impact.

From several decades of comparative research and analyses, it appears that the causes of violence are deep-rooted and complex. They overlap across multiple areas of people's lives and the systems within societies that are aimed at enhancing societal development. Increasingly, empirical evidence is illustrating how the burden of violence impacts on family life, educational attainment and engagement, on mental health and wellbeing, as well as on the criminal justice systems. We also know that violence is highly clustered, thus making prevention a place-based challenge (Masseti and Vivolo, 2010; PHE, 2019; YEF, 2023). For this reason, advocates of a public health approach for violence prevention point

to the requisite need for multi-agency collaboration that brings all relevant sectors together, often with the community, to collectively understand and respond to violence. PH-VP responses can then be said to be a comprehensive, evidence-based approach that seeks to address the root causes of violence and reduce its impact on individuals, families, communities, and society as a whole (Dartington, Trust and RIP, 2022).

While the authors recognise that a limited number of policy briefings and academic literature has intimated a preference for 'whole-system approach' rather than public health approach (PHE, 2019; Craston et al., 2020; Irwin-Rogers Fraser and Holmes, 2021), we argue that the latter is but a part of a public health approach. Further, we propose that it is a lack of specificity around the concept of public health approaches within the field of violence prevention that can foster misalignment and potentially highly variable practices.

"public health approaches are more expansive

in their scope than whole system, multi-agency collaboration. Such collaboration, however, plays an important role in creating the conditions through which public health approaches are likely to be effective". (Dartington Trust and Research in Practice, 2022: 13)

Additionally there has been some speculation across the literature that despite the burgeoning application of the term, the consistency with which that term is used and how communities interpret the term during the application of public health prevention activities could be highly variable (Matjasko, Massetti and Bacon, 2016). For example, Bowen et al (2004) and Hammond and Arias (2011) both suggest that a focus on individual's has prevented the wider systemic and environmental drivers of violence to be addressed- often an important element of public health

approaches. Others suggest that implementation teams can often be *laisse faire* with the core components-opting to execute one, more preferable phase at the expense of another. For example, getting alignment on the issue and understanding the risks contained in the data can take time, particularly when data is scarce. This may be one occasion when teams, assuming they intuitively know the issue and the factors driving it may opt to go straight into intervention implementation.

Understanding this variation in how public health for violence prevention is understood both as a concept and in its application is important for prevention. Thus, the primary aim of the current study is to synthesise the evidence around the characteristics of public health approaches for youth violence prevention.

Methods

According to Featherstone et al (2015), rapid scoping reviews can achieve the same level of rigour as systematic reviews with transparency in the reporting process paramount to conducting a rapid review. In order to work within limited resources and timeframes, rapid reviews limit search parameters and databases to expedite the research process while delivering robust results (Featherstone et al., 2017). The team employed review methodology informed by Arksey and O'Malley (2005). According to these authors, a scoping review can help to clarify concepts and the key characteristics associated with a given phenomenon (Levac et al., 2010). This thematic scoping review using systematic principles was intended to synthesize and coherently explore the common and divergent principles and approaches in the area of public health, youth violence prevention and to identify core concepts and related gaps in how public health approaches are currently implemented. Compared with systematic reviews, the purpose of this study was not to estimate effectiveness, or to establish new theory, but to provide a narrative synthesis of core issues relevant to public health implementation in the field of youth violence prevention.

Before undertaking the review, an informal search of Campbell Review, PubMed, Psycinfo and Google Scholar was undertaken to ensure that the current review did not duplicate previous, and recent efforts.

Search Strategy

The SPIDER tool, used in reviews of qualitative and mixed-methods studies is a framework to organise findings and conduct concept mapping. The SPIDER tool was chosen because it had the potential to provide greater specificity than the PICO/PICOS tool, particularly when process and implementation type studies are assumed to be more qualitative and narrative in nature. Three databases were searched as these include repositories of a wide range of thematically relevant literature in the area of justice, community safety, violence and injury prevention, and community outcomes. The review limited the timeframe to post-1985, which is generally considered to be a seminal point for public health and violence prevention research and practice. There were no restrictions on geography, but it was limited to youth related violence prevention. Peer reviewed and non-peer reviewed literature was included.

Three academic databases (Medline, PsycInfo, and Scopus), as well as the first forty pages of Google Scholar were searched using the following terms: *"public health" AND youth OR teen OR adolescent OR "young people" AND community AND violence* and prevent**. In addition to the search of relevant databases, contact was made with six experts engaged in public health violence prevention activities who advised on relevant studies that were missed during the literature search.

Inclusion and exclusion

Results were screened based on a priori eligibility criteria on the types of participants and outcomes. This review included qualitative and mixed-methods peer-reviewed journal articles published after 1985 that explored the concept, processes and mechanisms of public health for youth violence prevention. Studies were restricted to those that were in the English language; were peer reviewed articles, technical reports or policy briefings that described and/or evaluated the concept, process and/or impact of public health responses to prevent youth violence. Studies were excluded if they were published prior to 1985; were not written in the English language; if they focussed solely on single studies of discrete interventions; if they were reviews or meta-analyses whose primary purpose was to evaluate intervention effectiveness; public health papers that did not focus on violence or vulnerability to violence; and if they were public health papers that focus exclusively on other forms of violence and wider social harms (e.g., collective violence or war, gender-based violence, substance use and risk taking).

Screening

The review platform Rayaana was used to assist with study selection and screening. Authors CW, DS, KS and KR screened titles and abstracts against the inclusion and exclusion criteria. All reviewers then screened the full text articles for possible inclusion. Disagreements were noted on Rayaana and then resolved by two members of the team. Prior to commencing screening, a brief calibration exercise was conducted to test consistency in the application of the criteria outlined above. Two pairs of reviewers (CW & KS; DS & KR) reviewed ten (each) of the same abstracts. Where differences existed (n=2), the

reviewers met to reconcile different perspectives and to agree on an outcome.

Data management

All of the articles derived from the searches were uploaded onto a review management platform (Rayaan). This enabled the abstracts to be stored securely, but it also facilitated real-time access to the same review across the team. On this platform, members of the team reviewed, identified and excluded duplicates, isolated irrelevant studies, and identified the literature most relevant to the review.

Quality appraisal

No formal quality assessment was applied due to our focus on extracting conceptual data as opposed to drawing any conclusions based on results or perceived impact (Tarzia et al., 2023).

Analysis

From a total of 754 sources identified, 186 duplicates were removed leaving a total of 568 sources being screened. Of these, 414 were excluded based upon the abstract and 101 sources were retrieved for full appraisal. After a further 41 were excluded on the basis that there were either the wrong population or the wrong focus leaving a total of 60 sources that were included (see fig. 2).

Data extraction and analysis

The authors applied a thematic synthesis approach (Thomas and Harden, 2008) to analyse the data. This involved reading and re-reading the studies included in the review. Following review, all authors summarised the findings on a pre-defined extraction form. The SPIDER tool (sample, phenomenon of

IDENTIFICATION OF STUDIES VIA DATABASES AND REGISTERS

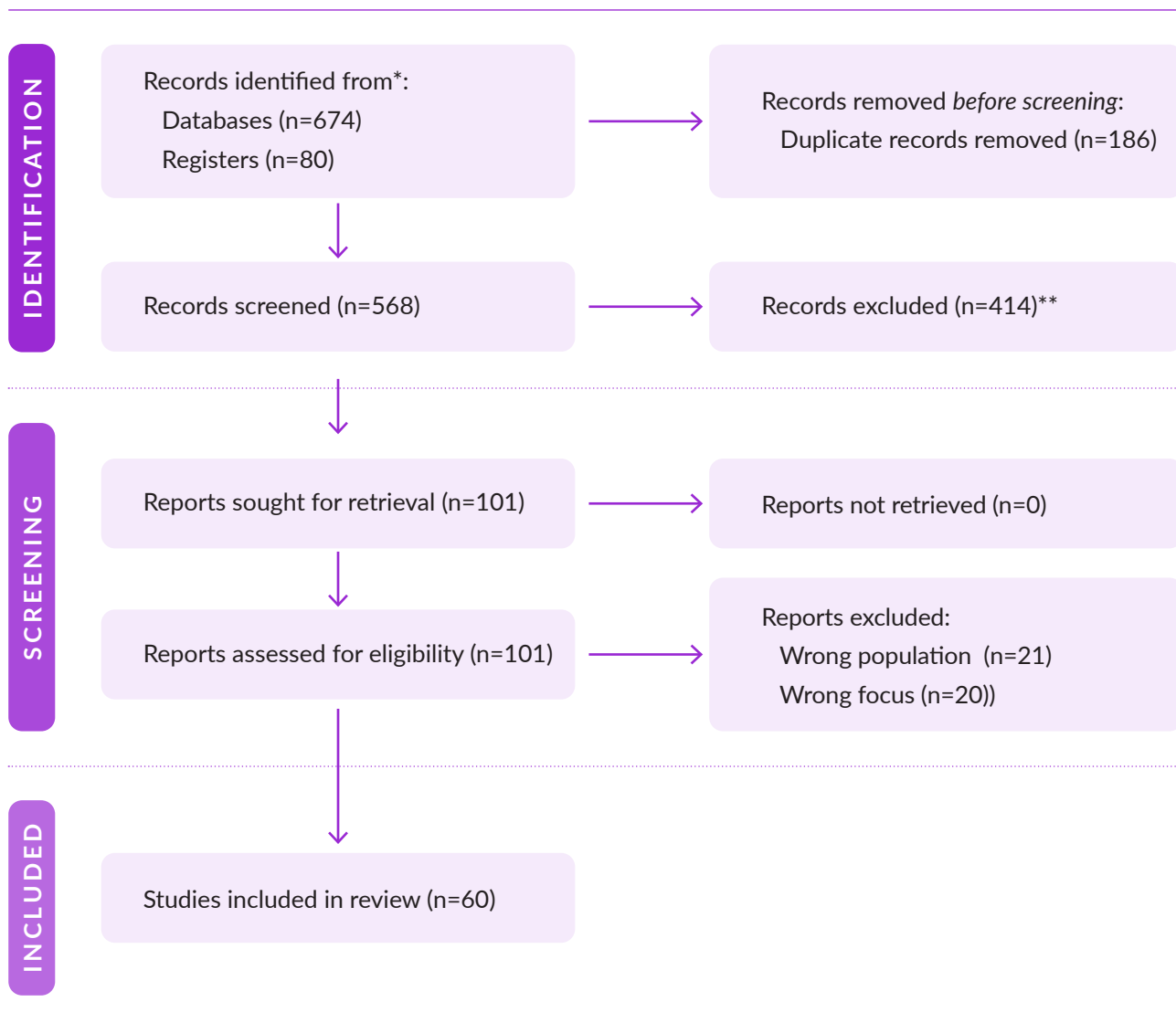


Figure 2: PRISMA flowchart

interest, design, evaluation, research type) (Cooke et al, 2012) was adapted for the purposes of data extraction (see table 1). The data extraction form was used to collate information on all included publications (see appendix 1). The authors conducted thematic analysis to systematically examine text and develop themes that emerged within which to categorise concepts associated with public health interventions for youth violence prevention (Hall & Steiner, 2020; Hsieh & Shannon, 2005). Following an initial tertiary review of the summary of research

commonalities were identified. Three authors (CW, PA, FC) met to review these commonalities and identified the preliminary themes. Within these themes, all authors then grouped sub-themes together. Thus this process moved in an iterative and inductive way from descriptive towards the analytical (Thomas and Harden, 2008). These themes were: priorities; principles, polices, practices and programmes-summarised as ‘the five p’s of public health violence prevention’.

Findings

In total, 60 separate studies, review or expert opinion pieces met the criteria for inclusion. The characteristics of the literature identified are outlined in [Appendix 1](#). In all, the majority of sources reflected the experience from United States (n=27; 44.2%). Within the European context, all sources focussed on the United Kingdom (n=11; 18%). One study (1.6%) examined the situation in both the UK and Australia and another examined the context in Canada (1.6%). In total, 21 sources (34.4%) provided either no specific geographical context or provided a more global reflection.

Five major themes were developed from our analysis of the included literature. These included: the priorities defined by public health teams of coalitions; the principles that underpin public health for violence prevention responses; the policies that facilitate or impede prevention activities; the specific practices that are embedded into and integral to public health for violence prevention responses; and the discrete programmes that combine to form a coherent response.

Theme 1: Priorities

Even among the most descriptive of sources, there was a degree of consistency-public health for violence prevention teams should first identify and define the problem (CDC, 1993; Heurermannand & Melzer-Lange, 2002; Dahlberg and Mercy, 2009; Snider et al., 2010; Hammond et al., 2011). Through

a process of problem identification and quantification, priorities could emerge for community coalitions- a common purpose underpinned by robust and objective evidence. While descriptively consistent, within the few sources that adequately described a process of implementation it was evident that problem identification and alignment is often more difficult than it is assumed to be, and some coalitions even avoid these crucial steps, instead opting to make assumptions about what the priorities are without any critical engagement with the data (Meyer et al., 2008).

Priorities that were clearly labelled tended to differ across the literature. For some, the priority was serious violence (PHE, 2019). Others were more specific, opting to address youth violence (Rodney et al., 2008; David-Ferdon et al., 2016; Smokowski et al., 2018), gun (Whitehill et al., 2014; Haselden et al., 2022), or community violence (Masho et al., 2016; Abu-Adil & Suarez, 2022)-thus including a target population, or environment of concern. The metric of success was often, but not exclusively significant reductions in various forms of violence (Bowen, Gwiasda and Brown, 2004). Other however, chose to measure the determinants of violence (Kingston et al., 2016), hinting at the difficulties capturing baseline data, and indeed ensuring the follow-up data accurately captured change in the preferred direction.

Interestingly, one source commented on the pressing need to reduce the silos of prevention

(Hawkins, Catalano and Arthur, 2002). Given how the variables predicting one form of violence are so intimately connected to other forms of violence, there is promise in joining up efforts across violence prevention activity.

“To the extent that violence prevention can be considered a field, it lacks cohesion, with each sector’s (e.g., domestic violence prevention, child mal-treatment, youth violence prevention, etc.) advocates, funders, and philosophical bases often operating independent of one another. The field is further “siloed” in myriad ways that provide challenges to primary prevention initiatives... community residents tend not to differentiate between one sector or the other as they struggle with the collective effects of violence in their home and in their communities” (Bowen, Gwiasda and Brown, 2004)

Indeed, this was central to many of the sources’ reflections. Coalitions, a mainstay of public health for violence prevention, appears to have been defined in various ways, but fundamentally, they are a consolidated collection of diverse entities who agree and indeed are energised by a desired to work towards a common goal (Chavis, 1995).

Theme 2: Principles

In contrast to other areas of public health for violence prevention implementation, the principles underpinning PH-VP were the most explicitly labelled, and in most cases, the most consistently described (Moore, 1995; Rutherford et al., 2007). An overarching theme was that violence must be understood as an individually experienced phenomenon, albeit with variation in exposure and impact, but that the collective experience brought about through the presence of violence is an issue

relevant to the whole of society (Masseti and Vivolo, 2010; Hammond and Arias, 2011). As such, most of the literature referred explicitly to, or at least intimated the concept of social-ecology as a guiding framework (Hawkins, Catalano and Arthur, 2002; Sabol, 2004; Umetot et al., 2009; Smokowski et al., 2018; PHE, 2019; Dartington/RIP, 2021). This, at least in theory, enabled teams to understand the multi-dimensional nature of violence and contributed towards encouraging sectors that would not normally have engaged in violence prevention activities to become involved (Mercy et al., 1993; Davidson et al., 1994; Hawkins, Catalano and Arthur, 2002). As noted by Mercy et al (1993:16):

“Public health brings a tradition of integrative leadership, by which we can organize a broad array of scientific disciplines, organizations, and communities to work together creatively on solving the problem of violence. This approach is in direct contrast with our society’s traditional response to violence, which has been fragmented along disciplinary lines and narrowly focused in the criminal justice sector...These problems are solvable, but we need to combine our diverse perspectives and resources to be successful. First, by unifying the various scientific disciplines pertinent to violence prevention, public health can provide policymakers with comprehensive knowledge that will be more helpful to them than the separate, discipline-specific parcels of information they now receive”

As common as this sentiment was, however, few of the sources that were reviewed actually described this being operationalised- a frustration noted by several of the sources reviewed (Bowen, Gwiasda and Brown, 2004; Hammond and Arias, 2011; Pound and Campbell, 2015; Matjasko, Massetti and Bacon, 2016; Irwin-Roger, Fraser and Holmes, 2021). Indeed, there was evidence that most

responses continued to only focus at the individual level, thus largely ignoring the macro level causes of violence and the harm that it contributes to. In other words, there has tended to be a fundamental disconnect between understanding and response. Indeed this was explicitly highlighted by one source (Quigg et al., 2021) in their robust evaluation of that factors that facilitated and impeded a whole system approach in Merseyside, Liverpool in the UK. The authors suggested that to date the lack of consistency with which public health approaches have been implemented has been both problematic and facilitative-allowing for teams to adapt elements to suit their own needs, something also highlighted by others such as Whitehill et al (2014) in the American context.

Consistent with the previous literature, the sources contained in this review described the problem of violence in public health and often medicalised terms (Hawkins, 1999). Most consistently, authors described the problem as being analogous to the spread of infectious disease (Whitehill et al., 2014) and pointed to the observable empirical evidence that quite often, victims of serious violence are implicated in the perpetration of violence, thus closing the circle on the cycle of violence. Relatedly, if violence did behave like a transmissible disease, then it could be interrupted. Thus the optimism of prevention was central to much of the literature (Powell et al., 1996; Hawkins, 1999; Hawkins, Catalano and Arthur, 2002; PHE, 2019; Irwin-Rogers, Fraser and Holmes, 2021)-a principle that underpinned the rationale for undertaking much of the activities being described.

Many sources recognised the public health for violence prevention activity is complex, time consuming and requires both patience as well as resources. In order to do this, community

coalitions often require capacity building activities to run alongside, or to complement the violence prevention activities (Umetot et al., 2009; Vivolo, Matjasko and Massetti, 2011; Dymnicki et al. 2021). Capacity building emerged in different ways and for different purposes, but nevertheless, was a more consistently reported theme across the literature (Bowen, Gwiasda and Brown, 2004; Kingston et al., 2016). Public health for violence prevention teams, although motivated, were often found to have deficits in one or more areas of theory development, data collection, data analysis, programme selection, implementation, and evaluation (Powell et al., 1996). While collaboration served to mitigate some of these risks, literature points to the utility of capacity building across one or more of these areas for effective and sustainable responses (Kingston et al., 2016). Of course these are not necessarily pre-requisites, indeed, several studies described how responses were developed in an iterative process (Bowen, Gwiasda and Brown, 2004), with capacity issues addressed as it evolved. This underscores another important principle; prevention takes time. In their review of the work of the Institute for Community Peace, Bowen, Gwiasda and Brown (2004) outlined how the process of community capacity building and engagement took five years.

That said, several capacities appeared to be more critical than others (e.g., problem identification and programme selection) and it was researcher-community partnerships that were most commonly cited as being conducive to effective PH responses, most commonly illustrated with reference to the Communities that Care programmes (Hawkins, 1999; Kingston et al., 2016). Indeed, the involvement of researchers at an early stage transcended evaluative support and included the building of receptivity of communities towards evidence and embedding evidence into thinking and

practical responses. This is particularly important in the field of violence prevention where there still exists a level of incongruity between how the public perceive the risk of violence and the risk of being exposed to particular forms of violence (Prothrow Smith, 1994). Despite several sources citing inherent challenges with partnership working (Powell et al., 1996; Quigg et al., 2021), there was little in the literature that nodded towards the specific factors influencing these challenges and how best to mitigate against them.

The establishment of a theoretical foundation was described by several studies as a critical output of a process of engagement with evidence and observation (Pound and Campbell, 2015). Despite acknowledging the need for a theoretical basis, few of the sources reviewed actually considered or reflected upon how theory connected to which areas of implementation. Several sources referred to the Social Ecological Theory (Sabol, Coulton and Korbin, 2004; Umetot et al., 2009; David-Ferdon et al., 2016; Matjasko, Massetti and Bacon, 2016; Smokowski et al., 2018; Hernandez-Cordero, 2022), however, this was mostly framed descriptively as a rationale for implementing interventions across domains and generally without expanding on its predictive value.

While the principle of whole-system collaboration was central to much of the literature (Hawkins, 1999; Kingston et al., 2016; PHE, 2019; Quigg et al., 2021), it was interesting to note that several authors presented more nuanced and even cautious reflections on their collaborative exercises. For example, Whitehill et al (2014) suggested that to be effective, collaboration teams should be limited, and specifically, should exclude the police in order to maintain the confidence of communities are who often so acutely mistrusting of them.

Interesting by its omission, few of the sources reviewed referred to the need, or dealt with the challenges of youth participation in the field of violence prevention. Given how we understand community violence to disproportionately affect children and young people, the fact that only one source (Hammond and Arias, 2011) meaningfully engaged with the issue of youth participation represents a significant gap both conceptually and practically. It also implies that much of the violence prevention activity currently being evaluated fails to comply with internally agreed Conventions such as the UN Convention on the Rights of the Child.

Theme 3: Policies

Despite locating the wider implementation barriers and facilitators within an implementation context, few sources engaged with or described the national or organisational policies, a gap acknowledged by several sources (Thornton et al., 2002). Of those that did, Hammond et al (2010) described the importance of a national public health strategy for violence prevention in the United States led by the CDC. This strategy provided support for motivated entities to engage in bi-directional forms of influence. In the first instance, data informed a response, but the evaluation of that response circled back to the analyses of the problem to inform future responses. In that sense, the most well described public health practices were underpinned by policies conducive to community action which in itself was both deductive and inductive. In the UK context, Irwin-Roger, Fraser and Holmes (2021) stressed the importance of a learning and sharing culture in order for evidence supported practices to become routinely embedded and PHE (2019) outlined the relevant policy changes that had taken place to support transformational change.

One of the most significant policy shifts in the United Kingdom came in 2019 when the UK Home Office scaled up their support to Violence Reduction Units across areas perceived to be most badly affected by community violence. The Units were described as being underpinned by a Public Health framework. In their process evaluation of those Units, Craston et al (2020) reported that the policy driven Units had led to better collaboration and data sharing across sectors

Theme 4: Practices

The practices involved in public health approaches for violence prevention were generally consistent and included a series of steps: understand the problem; implement evidence supported practices; translate evidence into policies; and track progress (Thornton et al., 2000; Hawkins, Catalano and Arthur, 2002; Hammond and Arias, 2011; Kingston et al., 2016; Matjasko, Massetti and Bacon, 2016).

Public health responses to violence were considered to be particularly complex (Massetti and Vivolo, 2010). Problem identification and appraisal therefore tended to be an important element during the inception of collaborative ventures (Snider et al., 2010; Hammon and Arias, 2011; Majasko, Massetti and Bacon, 2016; Quigg et al., 2021), however, at the outset of such ventures, access to the most relevant data and alignment on what that data means is tempered with challenges. The literature suggests that in the absence of quality data, effective surveillance systems should be established across systems to monitor the most salient risk and protective factors (Davidson et al., 1994), but several sources lament the general quality of administrative data and the ease with which the sources are shared with partners (Masho et al., 2016; PHE, 2019). As administrative data is often a rich source of

insight into population level problems, combining partial datasets (e.g., health, justice, education, and employment) contributes to a fuller picture (Masho et al., 2016). Masho et al (2016) suggest that data can be collected across three levels (actively, passively and sentinel), but went on to suggest that most violence prevention related data is collected passively by police and in the form of crime incident reports. In a few examples (e.g., Craston et al., 2019), partnerships illustrated the potential when data was shared. In these cases, policy driven agendas appeared to help compel organisations to do so.

While the combined efforts of different organisations from across multiple sectors was seen as critical to the public health approach, the centrality of community was of equal importance. Indeed, efforts that excluded the community in any sequence of the response were generally perceived to be unsustainable. Although there is a reasonable argument for this underpinned by social justice, some sources were more forensic in their calls to ensure communities were at the heart of responses. For example, Sabol et al (2004) engaged with the widely accepted theory of collective efficacy. They argued that while focus on community life in a specific locality is important, and increasing connections at a local level is useful, within communities that have been deeply segregated, connecting communities to those outside of their hyper-localised sphere of influence can be transformative.

Interestingly this can contribute to new (and often political) challenges where new systems begin to record previously undocumented cases of violence. In one source (Smokowski et al., 2018), the authors reported an increase in violent crime explained by the changes in how incidences of school violence were collated and reported. Understanding and being able

to explain the data is as important as the practical measures required to actually collect the data.

Partnerships, particularly research-community partnerships, were one of the most consistently described practices across the literature reviewed (Powell et al., 1996; Lai, 2008; Meyer et al., 2008; Massetti and Vivolo, 2010; Matjasko, Massetti and Bacon, 2016). In line with previously documented research (e.g., Hawkins et al, 2009 and Redmond et al., 2009) authors such as Kingston et al (2016) cite the need for researchers to work alongside communities and provide illustrative examples of this via Communities that Care and PROSPER. In one study, the authors noted the impact of this extensively coordinated approach underpinned by data and situated those across the ecology in the context of short, medium and longer term outcomes (Matjasko, Massetti and Bacon, 2016). In another study that also reviewed Communities that Care, Hawkins, Catalano and Aruthr (2002) outlined the factors associated with effective partnerships. These included: a clear mission and effective leadership (Heurermann and Melzer-Lange, 2002); paid staff (Hawkins, Catalano and Arthur, 2002); clear and measurable objective sound procedures and trust (David-Ferdon, 2008). It is this collaborative effort to achieve population level change that sets public health apart from personal medical services (Powell et al., 1996), or indeed much of the criminal justice responses (Mercy et al., 1993).

Despite the general sequence with which approaches were envisaged to be implemented (Thornton et al., 2000), there was some evidence that in some cases, teams applied a 'test and learn' approach, opting to skip particular elements (e.g., problem identification and risk assessment) and move into programme implementation (Umetot et al., 2009; Craston et al., 2020). While the challenge of time constraints was

outlined several times, these reflections to beg the question, what elements are required to constitute a public health approach and which are disposable?

Theme 5 Programmes

Most commonly, sources anchored their description of programme activity along the WHO (2020) typology of primary, secondary and tertiary provision (Prothrow-Smith, 1994; Quigg et al., 2021).

Relatedly, most papers made an explicit reference to the utility of theorising violence and its prevention within a social ecological framework (Hammond et al., 2010; Hernández-Cordero et al., 2011).

Despite the acknowledgement that evidence based models are required, there is a paucity of evidence around what these look like and how best to implement them (Kingston et al., 2016). Their paper describes the efforts of 6 national VP centres to select and implement EBMs. One of the considerations for programme selection was the quality of evidence. For this programme a major consideration was at least one high-quality (defined as RCT or quasi-experimental design) evaluation of the programme. Others referred to the need to connect evidence to contextually relevant problems and enable communities to choose the most appropriate interventions for that context (Massetti and Vivolo, 2010).

Choosing and facilitating one programme is challenging, however, the venture becomes even the more challenging when teams seek to address multiple issues across multiple domains thus necessitating the need for several programme being delivered concurrently (Powell et al., 1996). While this is aligned with how we understand the complexity and multi-faceted roots of violence, the challenge cannot be underestimated. Evidence from

this review found that communities often struggle to understand how a package of evidence-based programs can fit together to create a strategic, sustainable, evidence-based comprehensive approach, and while several sources highlighted the steps required to move beyond problem identification to theme selection towards programme implementation (e.g., Quigg et al., 2021), few specifically described how this was done. One of the few case studies documenting the implementation process was located in the Ivanhoe region of Kansas City. Watson et al (2008) discussed a primary level intervention for prevention underpinned by a 12-point framework and outlined the 26 changes that came about as a result. Others leveraged a case study design to highlight a multi-tiered support programme to address interrelated challenges associated with mental health, trauma and violence, or to address challenges across domains (Kingston et al., 2016). While much of the literature relied on informative, but discursive approaches, Smokowski et al (2018) presented a comprehensive public health programme, operationalised in North Carolina (USA) across primary, secondary and tertiary levels. These authors were one of the few to report high-quality quasi-experimental and RCT data over a period of six years. Hernández-Cordero et al (2011) reported on a community mobilisation programme in Columbia. Despite the paucity of European located programmes, Craston et al (2020) summarised a process evaluation of 18 UK based Violence Reduction Units (VRUs) and found that a stable staff team, effective engagement, evidence informed responses, and working towards cultural change were all implementation facilitators. Quigg et al. (2021) also reported on the VRUs with specific reference to the city of Liverpool. They found that in addition to the facilitators mentioned by Craston et al (2020) financial resources and connecting strategic priorities were crucial for programmes to be effective.

Other sources cited the numerous implementation challenges with: collecting and using data to make decisions about programme selection and impact; achieving consensus on the prioritized problems and the solutions; how to implement the programs with fidelity; how to create environments for evidence-based programmes to survive; and, when this approach involves multiple sectors and agencies (e.g., community, academia, justice, health, education), who has the authority and responsibility for ensuring its success (Masseti and Vivolo, 2010; Smokowski et al., 2018). Across the literature that engaged with these challenges, implementation science perspectives emerged as a holding significant promise. Implementation science perspective can help understand what is required to effectively and sustainably bring EBMs from selection to scale (Kingston et al., 2016).

Many source described the need for programmes to consist of multiple types of activities, addressing different domains of society. As noted by David-Ferdon et al., 2016:10):

“Because youth violence results from multiple individual, family, and environmental factors that can accumulate over a child’s development, the use of one strategy will have limited effects on an entire community’s level of violence and its ability to sustain initial program benefits. A comprehensive approach that simultaneously targets multiple risk and protective factors is critical to having a broad and continued impact on youth violence.”

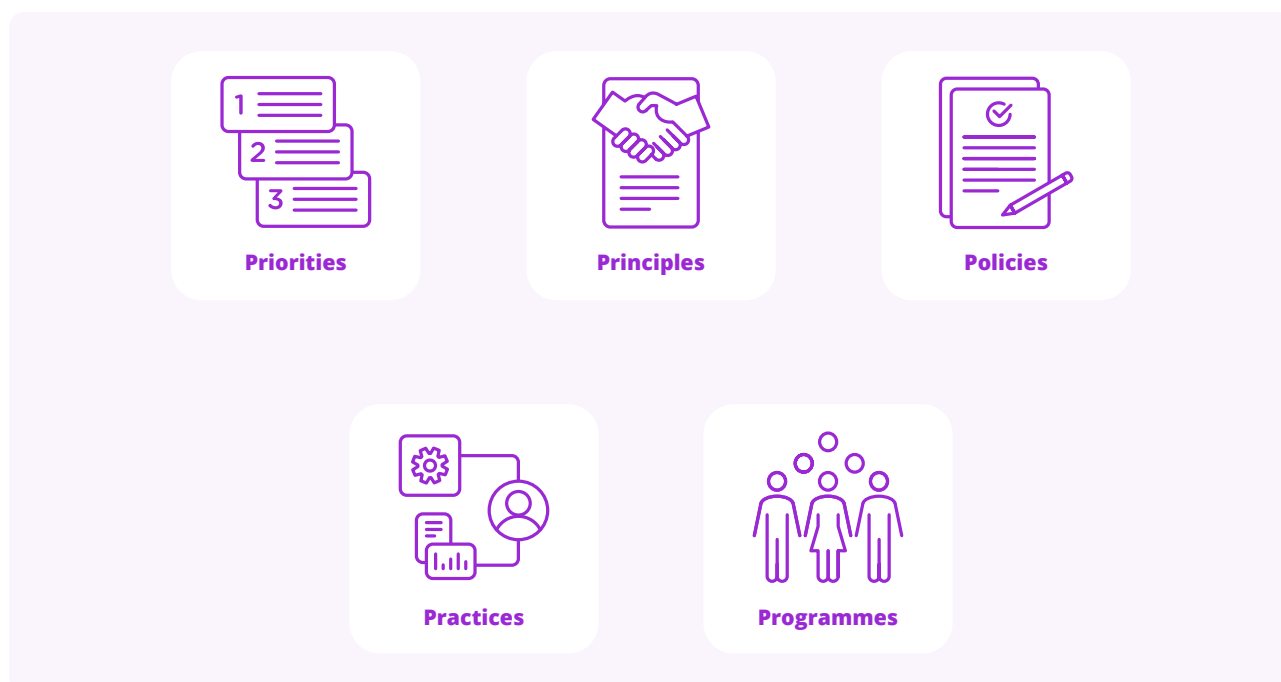
Despite the importance of this stressed across sources, few actually described its implementation. Of the few sources that did describe with sufficiently detail the implementation of a multi-modal, multi-systemic public health response, Smokowski et al (2018) outlined the facilitators

and impediments to concurrently running a school-focussed, court-focussed, and family focussed set of interventions. Spivak et al (1989) described the Violence Prevention Project of the Health Promotion Program for Urban Youth- a response to youth violence in the Boston area of the United States. The authors outlined the rationale for a school-based violence prevention curriculum, community-focussed activities, secondary level support services, and mass media campaign.

Few studies reported working in the tertiary space, with those most acutely vulnerable to violence, and with those most embedded in violent activities. Of the most commonly cited programmes working in this area were the Ceasefire and variations of the Cure Violence model (Frattaroli et al., 2010; Whitehill et al., 2014; PHE, 2019). Of those that did, it was interesting to note that their geographical spaces were described in contrast to primary and secondary preventative activities. Whereas the latter tended to be delivered in

schools and homes, the former tended to be delivered on the streets.

Despite variation in the priorities defined by prevention partnerships, most of the literature reviewed implied a need to measure change. For example, Mercy et al (1993) suggested that of the programmes being implemented, anticipated outcomes can broadly fall into one or more of three groups: change in attitude/knowledge/skills; change in the social environment; change in the physical environment. While several others similarly described the need to measure and report outcomes, few of the sources actually outlined what the outcomes were. In one of the few studies that did, Smokowski et al (2018), reported a significant reduction in 12 month recidivism for justice involved youth (10.26% vs an average of 26%). Another paper suggested that increases in Collective Efficacy could provide the theoretical foundation for activity as well as the primary outcome (Masseti and Vivolo, 2010; Hammond et al., 2011).



Discussion

Interpersonal violence is a global challenge (WHO, 2020; Walsh, 2023) and youth violence in particular has received significant policy attention over recent years (YEF, 2022). While debates around trends continue (Finkelhor et al., 2014; YJB, 2023), several decades of evidence support the deleterious effects of being exposed to violence both directly and indirectly (Fowler et al., 2009). Indeed, the harms can be so enduring that finding ways to reduce both its prevalence and impact has become an increasing priority, and one that is mandated by national government's commitment to the UN Convention on the Rights of the Child as well as the global Sustainable Development Goals (Hillis et al., 2016; UNICEF, 2022).

Public health has become a leading paradigm for violence prevention (Irwin-Rogers et al., 2022). This rapid review is the first to synthesize the qualitative literature on PH-VP. Through a synthesis of 60 sources, it provides insight into the characteristics of PH-VP activities, the gaps that exist in our understanding, and attempts to synthesise those messages to produce a coherent characterisation of public health for violence prevention.

With its origins in the US Surgeon General's speech of 1985, interventions such as *Cure Violence* and *Safe Streets* (Whitehill et al., 2014) have expanded beyond the United States and into Europe with the advent of the infamous Violence Reduction Units (PHE, 2019; Craston et al., 2020) that were implicated

in the significant reductions in serious violence in Scotland (Conaglen and Gallimore 2014). With advocates in such high places as the WHO, similar structures have since been replicated across England (Craston et al., 2020). Despite the journey, the rhetoric has remained largely unchanged- and also relatively unchallenged since the 1980's. Further, it remains unclear which elements of a public health approach are sacrosanct-without which it would not reasonably be called such- and which are optional-available to implement or not- depending on factors such as culture and context (Ogden et al., 2009). While much of this literature appears to be direct copy and pastes, such elements as the need for tiered responses (primary, secondary and tertiary interventions) (WHO, 2020; Quigg et al., 2021), or the need to situate these responses in a four-step, cyclical model of problem identification, risk assessment, implementation and evaluation (Watson et al., 2008; Kingston et al., 2016; Dmokowski et al., 2018), the paucity of more nuanced evaluations that illustrate the degree to which these have been successfully implemented (or not), has hindered progress in this area. As a science-based response to violence (Hawkins, Catalano and Arthur, 2002), public health publications appear to have remained fairly dogmatic, providing few opportunities to critically engage with the structure, content and impact, and thus tempering opportunities to enhance them further. Despite a number of descriptive overviews, for the most part, the implementation factors that have been implicated in increasing the

feasibility and acceptability of evidence supported responses, such as *'adaptability'* (the ability of the new organisation to be understand the various levels of change needed in order to successfully replicate the chosen programme), and *'compatibility'* (the contextual appropriateness of the host agency selecting a particular programme to address a well-defined problem) (Durlak et al., 2008), are largely missing from the literature.

That said, the call for a science-based approach to violence prevention has contributed towards an alternative to a criminal justice response (Moore, 1995; Dahlberg and Mercy, 2009) and a more coherent definition and a four-step process widely accepted as the norm (PHE, 2019). While widely accepted, this review found that one of the reasons why the characteristics of public health for violence prevention is not sufficiently well documented, is due to the methods reported. Indeed, of the 60 sources reviewed, 27 (45%) were expert opinion pieces, lacking a robust research/review methodology. Most of the sources were highly descriptive and generally lacked details on the *'how'* of implementation (Mihalic et al., 2003). This implementation perspective, or paying attention to and truly understanding how the activities that are designed are put into practice, (Mihalic et al., 2003; Fixsen et al., 2005) is critical. Of those sources that did sufficiently describe the focus of interventions, they located them within the standard primary, secondary, tertiary hierarchy. Given that exposure to violence presents a significant public health risk (Powell et al., 1996; PHE, 2019; D'Inverno and Bartholow, 2021; Armstrong and Rosbrook-Thompson, 2022) such as elevated mental health difficulties (Fowler et al., 2009), problem drug use, and offending (Walsh and Cunningham, 2023), public health for violence prevention is more than simply preventative. It is also remedial-seeking to mitigate further harm as



Figure 3: Characteristics of PH-VP

opposed to preventing something happening in the first place. On this, there is consensus.

Although most sources did not sufficiently evaluate the components that collectively formed the PH-VP approach, the combined evidence from this review found that five components, implemented in whole and in part, appear to characterise an effective PH-VP approach (See fig. 3). From an implementation perspective, these are important details that in their absence reduce opportunities for new coalitions to learn, adapt and refine effective violence prevention activities (Elliot and Mihalic, 2004; Fixsen et al., 2005; Durlak et al., 2008).

One of the few orthodoxies described in the literature is the need to understand the problem (Thornton et al., 2000; Hawkins, Catalano and Arthur, 2002; Hammond and Arias, 2011; Kingston et al., 2016; Matjasko, Massetti and Bacon, 2016). This is more than semantics, but necessary to attain alignment on what is often a complex issue with competing and even contested understandings. Of course, most sources reflected the need for high-quality data as an ambition as opposed to experience, but there was a sense that without a reliable baseline of data, as well as adequately trained individuals able to make sense of that data, coalitions ran the risk of going down a rabbit hole only to surface with depleted resources and having had relatively little impact. Of those that adequately described data surveillance, most were located in the United States, implying that either inadequate data exists outside of the USA; that the coalitions that leverage these sources remain under-evaluated; or that they are of lesser importance in PH-VP responses more generally. If we accept that either the former or the latter are true, then it seems that the practices being implemented are not wholly in line with public health approaches. Even if we

accept the supposition nested between them, and at the same time accept that evaluative processes are integral ingredients with a PH-VP approach, then it is not clear to what extent those practices without such efforts are truly implementing a public health response.

While the concept of community coalition, or prevention activities being rooted in, by, and with, the community was central to many descriptions (Cohen et al., 2016; Dymnicki et al., 2021; Russell, 2021), there was some frustration, that as a field, violence prevention has tended to stay within the school domain (Whitehill, 2014). As noted by Hammond et al (2010) we have learned a great deal over several decades about the prevention of youth violence, however, we now desperately need knowledge around the methods, structures, and processes that facilitate public health prevention approaches outside of schools and in the community. Again, this implies an implementation gap across the literature. We know what to do, the question remains 'how' (Mihalic et al., 2003), and if any coalitions have excelled at this, their stories remain silent.

Central to PH-VP is choosing and facilitating programmes. Single programme implementation can be challenging, however, the venture becomes even the more challenging when teams seek to address multiple issues across multiple domains, thus necessitating the need for several programme being delivered concurrently (Catalano et al., 1998; David-Ferdon et al., 2016; Matjasko, Massetti and Bacon 2016). While this is aligned with how we understand the complexity and multi-faceted roots of violence, the challenge cannot be underestimated. Evidence from this review found that communities often struggle to understand how a package of evidence-based programs can fit together to create a strategic,

sustainable, evidence-based comprehensive approach. They are challenged with: collecting and using data to make decisions about programme selection and impact; achieving consensus on the prioritized problems and the solutions; how to implement the programs with fidelity; how to create environments for evidence-based programmes to survive; and, when this approach involves multiple sectors and agencies (e.g., community, academia, justice, health, education), who has the authority and responsibility for ensuring its success (Massetti and Vivolo, 2010; Smokowski et al., 2018). This review illustrates that fact that the 'science' of evidence-based practice is fraught with a non-linear path of complication (Gray, 2012) and that transferring effective programs into real world settings and maintaining them there is a complicated, long-term process (Durlak et al., 2008).

Whilst it was highly useful advance during the 1980's and 1990's, this review points to specific weaknesses in the original four-step process documented by the WHO and widely cited among many of those seeking to implement a public health approach for violence prevention. As evidence has advanced, this combined literature included as part of this review suggests that there is likely to be a need to be more specific and conscious with regard to the approach to implementation. Firstly, and most obviously, violence prevention and reduction is a complex issue with multiple implementation domains. The four-step sequential model does not talk to this complexity. Those who are designing and implementing packages of interventions for violence prevention rarely work through the four step process sequentially; it would make no sense to do so as the data on problem identification is never complete or unambiguous, and the implementation environment is never a blank sheet of paper. Further, coalitions rarely come together outside of a vacuum.

There is often a 'trigger' that facilitates movement towards a coalition. This is an important element of the PH-VP process that is not sufficiently well captured in the four-step model. The implication is that public health teams seeking to address violence do not have sufficient access to the best available evidence. The sources included in this literature review suggest that rather than a single cyclical process, PH-VP requires multiple cycles at the same time, particularly as there is need to implement primary, secondary and tertiary responses across multiple domains simultaneously. The original four-step process model does not capture this complexity well, nor has it evolved to reflect this. As we move to scaling up successful interventions, not only is this very difficult in practice but single interventions do not exist in isolation in the primary – secondary – tertiary part of the approach. If the conceptual model for violence prevention is a coherent package of interventions covering a wide spectrum of need, then the implementation model needs to be more sophisticated and account for the complex environment in which those decisions are being made. It may make more sense to think of the four step process as a heuristic device which describes the type of decision making process which is required rather than an implementation approach. As an alternative, the authors propose that rather than a sequence of steps, PH-VP teams could reflect on their efforts with reference to the five key characteristics outlined in figure 2 above. This reflects the complexity much more closely to the reality of efforts than is currently documented. In this response, teams can reflect on and conduct a 'health-check' on their response at any point in time. This allows teams to benchmark their efforts as well as the resources that they have available, identifying strengths and where gaps exist that need action (see fig. 4). This, we contend, also reduces the ambiguity of PH-VP responses.

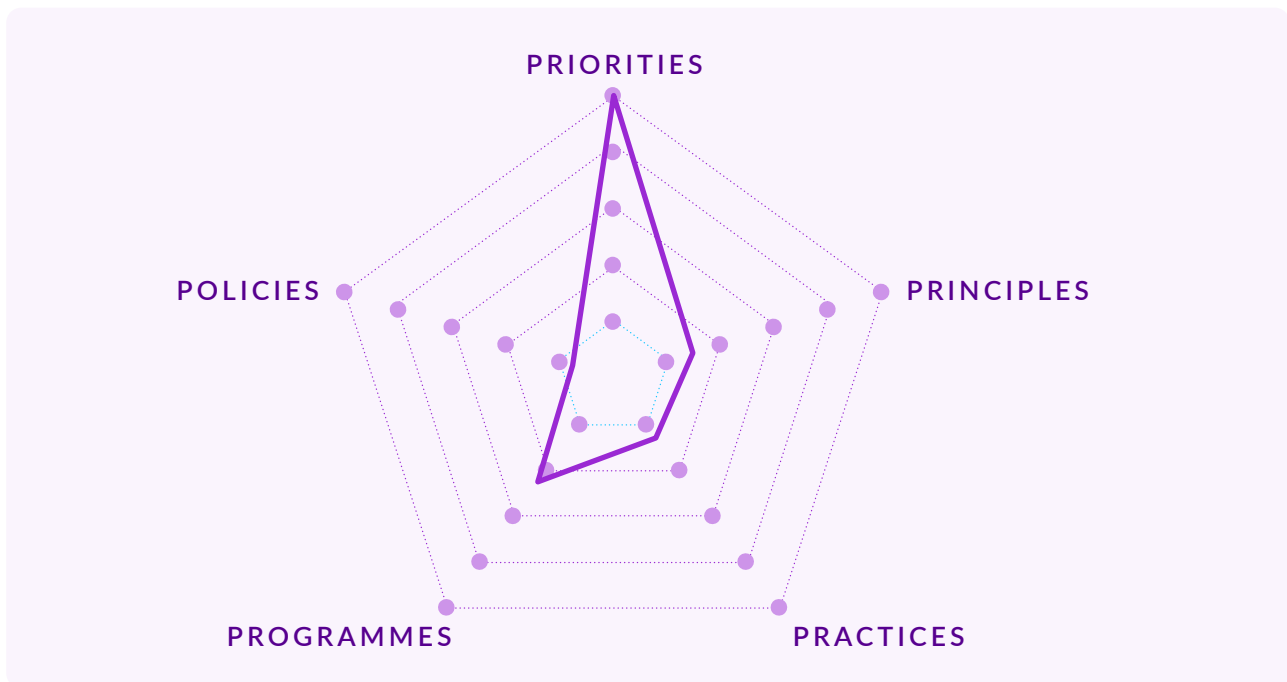


Figure 4: PH-VP benchmark

In conclusion, PH-VP approaches are an appealing alternative to criminal justice responses that recognise the multi-faceted drivers of serious violence, the complex pathways into violence, and the multi-dimensional responses that are required to interrupt violent pathways. PH-VP should, but does not always, prioritise a science-based approach, leveraging high-quality (but not infallible) data to inform decision making. It is complex and can take time. The effort appears to pay dividends more quickly when there is a policy context conducive to change. However, this review also suggests

that significant gaps exist in how these efforts are documented, and which components are necessary to implement a truly public health for violence prevention programme. This review suggests that the dogmatically accepted four-step process model does not sufficiently capture the complexity of prevention responses, and that despite the current consensus, and some degree of excitement, an implementation perspective is required, and that with further reflection, the true utility of these approaches may become more apparent.

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Appendices

Appendix 1: Review sources

S	P	I	D	E	R
Sample	Phenomenon of interest	Intervention and level (i.e., primary, secondary, tertiary)	Design	Evaluation	Research type

Abdu-Adil, and Suarez, 2022

S	N/A
P	Community violence exposure and trauma among urban youth
I	The intervention is the Urban Youth Trauma Centre (UYTC) programme, which provides a continuum of trauma-informed care from prevention to intervention for youth exposed to community violence. This includes primary prevention programmes like YOUTH-CAN, secondary interventions like Strong Families, and tertiary clinical interventions like Trauma Systems Therapy.
D	A programme description of the UYTC model.
E	The UYTC programme offers trauma-informed primary prevention and clinical intervention for urban youth exposed to community violence.
R	Expert opinion (REVIEW)

Summary of findings: Describes the UYTC programme, which provides a spectrum of trauma-informed services from primary prevention to clinical intervention for urban youth exposed to community violence. The programme has a wide reach through provider training and social media. While outcome data is limited in this brief report, initial findings suggest the programme shows promise in increasing provider skills and engagement in addressing this issue. However, more research is needed on the effectiveness of the UYTC model.

Akpunne, 2021

S	Baltimore, USA.7 participants (professionals such as legislators, criminal justice attorneys, juvenile social workers).
P	Youth violence prevention
I	Primary - sought to gain consensus on actions that could be taken to prevent youth violence before it occurs.
D	Qualitative using a modified Delphi design with 4 rounds of surveys and data analysis to gain consensus.
E	Understand the consensus among legislators, attorneys and social workers on the underlying factors contributing to youth violence in Baltimore City.
R	Qualitative dissertation using surveys and analysis)

Summary of findings: The study yielded 10 major themes from content analysis in Round 1, including perceptions of youth violence, beneficial legislation, biological stressors, emotional experiences, gang/peer issues, socioeconomic status, and disorganised neighbourhoods. In Rounds 2-4, 25 statements achieved consensus from the expert panel on strategies like enhancing educational opportunities, improving essential services, addressing systemic inequalities, substance abuse treatment, and firearm regulations to reduce or prevent youth violence. The study focused on gaining consensus on preventive strategies for youth violence in Baltimore City using a panel of experts and a modified qualitative Delphi design with multiple iterative rounds of surveys and analysis. The findings highlighted areas of agreement on actions in areas like laws, programmes, services, and regulations to reduce youth violence.

Armstrong and Rosbrook-Thompson, 2022

- S** Practitioner's in London.
- P** Analyse the application of the public health approach to attempts to address urban violence using fieldwork conducted in London.
- I** Primary, secondary, and tertiary
- D** Qualitative and ethnographic
- E** Effect of screening and diagnoses
- R** Observations and Interviews with practitioners (police, youth offending services, education, probation)

Summary of findings: The research revealed tensions in implementing a public health approach to urban violence in practice. Despite sophisticated data systems for diagnosis, treatment interventions were limited by resources and institutional divides. Pressures to validate data systems also led to inaccurate labelling and pathologizing of communities. While some practitioners saw modest successes, many questioned whether the model addressed root causes and if metrics could capture meaningful change. The findings highlight challenges in operationalising public health approaches on the ground when applied to complex social issues.

Axford et al., 2023

- S** N/A
- P** Youth Violence and how services engage with youth at risk of involvement in violence
- I** N/A
- D** Rapid evidence review
- E** Multiple study designs were included,
- R** Evidence synthesis

Summary of findings: Although engaging youth in services is challenging, a combination of strategies relating to design, delivery, staffing, settings, content, and format can help. More research is needed to test what works best for whom and in what circumstances.

Bowen, Gwiasda and Brown, 2004

- S** 12 communities over a 6-year period.
- P** Youth violence
- I** Primary
- D** Process-level data from the ICP evaluation
- E** Identification of the factors that facilitate and impede community involvement in violence prevention efforts
- R** Case study

Summary of findings: Community involvement in prevention is not new, however, the methods are less well established. Several prerequisites are required for community responses to violence prevention. Efforts take time and require agility. Phased responses are important. Creating safety (e.g., by making the systems functional; and acknowledging the pain). Understanding Violence. Building community -collective efficacy. Promoting peace-challenging norms. Democracy and social justice (empowerment and decision-making).

Catalano, et al., 1998

- S** N/A
- P** Youth violence
- I** Primary/Secondary
- D** A narrative review of school-community-based interventions
- E** A narrative synthesis of the research evidence
- R** Expert opinion (REVIEW)

Summary of findings: Interventions that address multiple risk factors concurrently hold most promise

CDC, 1993 USA

- S** N/A
- P** Youth Violence
- I** Primary, secondary, tertiary
- D** N/A
- E** Practice guide for community-based violence prevention
- R** Expert opinion (REVIEW)

Summary of findings: Key elements: Participation and Problem identification. "A problem must be clearly identified before it can be addressed" p29. Leadership, Inclusion and participation. Resources and Activities. Evaluation, Data collation and presentation. Clear goals. There is a need to address violence as a societal rather than individual issue. Activities should be multi-modal, implemented in the appropriate environments, goal-oriented, tiered for universal and targeted groups.

Chanon Consulting and Cordis Bright / Local Government Authority, 2018

- S** N/A
- P** Violence prevention
- I** N/A
- D** Review of UK interventions with clear logic models observed positive outcomes, and comparison with a control group or equivalent (to show additionality)
- E** Reduction in problem behaviours and return on investment
- R** Expert opinion (REVIEW)

Summary of findings: "Many of the interventions covered in this review were shown to modify risk and protective factors for multiple different kinds of violence, and some were shown to reduce violence itself." – improved parenting, reduced ASB and other behavioural problems in children/young people, improved emotional awareness and socialisations

Chavis, 1995

- S** Two coalitions in New Jersey, USA
- P** Violence prevention
- I** N/A
- D** Process level data
- E** Community mobilisation
- R** Multiple case study

Summary of findings: Outlines the ten primary functions of community coalitions. Coalitions can be expensive and may not be the best breeding ground for testing new innovations. Need to define a common goal. Outcomes difficult to measure

Children's Commissioner (England), 2021

- S** N/A
- P** Youth violence
- I** Primary, secondary, tertiary
- D** N/A
- E** The public health approach to violence in England
- R** Expert opinion (REVIEW)

Summary of findings: 27000 children at risk of gang exploitation; no overarching national data to reflect the scale of the issue; the UK government's approach to public health includes joined-up working; and funding; however, lack of attention on capacity building or incentivising this. A key tenet of PH is to focus interventions upstream before issues arise; outlines several sensible but wildly variable risks that are not coherently connected to risk and variation in outcomes. The research on which the findings are based is cross-sectional and not designed to establish cause. Yet, the findings are presented as having established causal. The report outlines a series of flaws without describing how effective PH responses look in practice and evaluating how effective these are.

Cohen, Davis and Realini, 2016

- S**
- P** Youth violence
- I** Unclear
- D** Case example
- E** Community mobilisation
- R** Case study

Summary of findings: Began with research; build a coalition of city officials and community partners; developed a road map; focus on risk and resilience factors; lacks robust design and mostly descriptive overviews of literature (risk and protective factors).

Craston et al., 2020

- S** 18 UK VRUs
- P** Serious Violence & Youth Violence
- I** Primary, Secondary, Tertiary (focus on strategy and coordination of full PH approach)
- D** Telephone consultation w/18 VRUs, In-depth case studies of 6, Online survey of stakeholders
- E** Violence reduction
- R** Process evaluation

Summary of findings: Importance of: Stable core staff; Engagement w/all relevant agencies and stakeholders; Commissioning of evidence-based interventions to meet strategic needs; Clear comms/engagement strategies w/ frontline staff, communities, young people; Building evidence bases/improving data sharing/robust monitoring and evaluation; Embedding PHA horizontally and vertically requires longer-term cultural change.

Dahlberg and Mercy, 2009

- S** N/A
- P** Violence
- I** N/A
- D** Lays out the establishment of the reduction of violence as a public health policy priority in the US since the late 70s.
- E** Violence reduction
- R** Expert opinion (REVIEW)

Summary of findings: PH approach to violence b/c homicide and suicide reached epidemic proportions during the 80s. And because of successes in tackling disease through behavioural modifications. Also, child maltreatment and intimate partner violence were recognised as social problems in the 60s/'70s that needed more than a criminal justice approach. Work to measure the problem and risks, and from the early 90s understand what works in preventing it ("applied, skill-based violence-prevention programs that address social, emotional, and behavioural competencies, as well as family environments." p. 5).

David-Ferdon and Hammond, 2008

- S** N/A
- P** Youth violence
- I** N/A
- D** A description of community mobilisation and review of the need for community mobilisation efforts
- E** Violence reduction
- R** Expert opinion (REVIEW)

Summary of findings: Community willingness to engage in prevention efforts is contingent on trusted relationships. Policy prioritisation is an important driver.

David-Ferdon et al., 2016

- S** N/A
- P** Youth Violence
- I** Primary, Secondary, Tertiary
- D** Synthesises evidence to present approaches and results across five strategies:
- E** Violence reduction
- R** Expert opinion (Review)

Summary of findings: Sustained, broad, and significant youth violence reduction requires a multi-level, multi-sector approach, including programmes operating at various intervention and ecological model levels.

Davidson et al., 1994

- S** Two communities in Eastern US (Harlem and Washington Heights)
- P** Prevention of severe assault-related injury in Harlem via a community coalition
- I** Universal
- D** Use of surveillance data from various sources.
Comparative evaluation of two EDs over a 3-year period (1988-1991)
- E** Violence reduction
- R** Impact evaluation

Summary of findings: Injury burden is a PH concern. Patterns differ between communities. Effective surveillance is critical. Addressing multiple factors in communities is required. The project focussed on built environment, transport, sports, and other pro-social activities. Compared with the control, reductions in assault-related injuries.

D'Inverno and Bartholow, 2021

- S** United States
- P** Youth violence prevention
- I** The CDC-funded Youth Violence Prevention Centres implement and evaluate community- and policy-level youth violence prevention interventions. These include community organising, partnerships, social norming, vacant lot improvements, etc. Prevention strategies range from primary to tertiary.
- D** The supplement includes conceptual pieces and commentaries synthesising lessons learned by the prevention centres based on their community-engaged work
- E** Shares insights from implementing innovative youth violence prevention strategies at the community and policy levels, focusing on social determinants of health and health equity. To inform future efforts to build evidence on effective approaches to prevent violence comprehensively.
- R** Expert opinion

Summary of findings: The editorials reflect on strategies, partnerships, and paradigm shifts in youth violence prevention, moving from individual to structural factors. They aim to advance community-engaged prevention and reduce persistent racial/ethnic disparities.

Dymnicki, et al., 2021

- S** 12 community sites (8 low and 4 high capacity)
- P** youth violence
- I** Primary, secondary, tertiary
- D** Case example
- E** Describe the training and technical assistance initiative coproduced by the CDC and American Institute for Research over a 5-year period
- R** Case study

Summary of findings: Focus on capacity building required for PH interventions. Need for site readiness check (protocols; joint working practices; data systems); 8 areas of capacity evaluated (partnerships and coalitions; evaluation and data systems; community engagement; strategic planning; communication; selection and implementation of practices; enhancement of local health department infrastructure; system change and sustainability. Importance of technical support as coalitions get started, learning events.

Frattaroli, et al., 2010

- S** Interviews with two program managers, six SWs and partners, 17 representatives from partner agencies in the USA
- P** Youth violence
- I** Secondary, and tertiary
- D** Observations and interview-level data
- E** Utility of the model
- R** Case study

Summary of findings: Describes contacts that the street workers have with young people – consistent with the pyramid model of outreach. The program emphasizes peace-making NOT only preventing violence.

Hammond et al., 2011

- S** Review
- P** Development of public health strategy to reduce youth violence
- I** Primary
- D** Process level data
- E** The review discusses the process of developing a National Public Health Strategy to Prevent Youth Violence
- R** Case study

Summary of findings: Despite convincing evidence around the predictive risks of youth violence, a comprehensive response is lacking. There is a need for a collective vision underpinned by evidence within a social-ecological framework. The first step is grasping the problem. This can be facilitated by the state/ Evidence can support communities to understand risks and develop comprehensive package, but it does not always get well disseminated. There is a need to understand the problem. The authors suggest that Collective Efficacy is an appropriate outcome.

Haselden and Barsotti, 2022

- S** N/A
- P** Gun violence framed as a public health issue
- I** Primary
- D** A perspective piece making the case for reframing the public health approach to gun violence. The design involves critiquing prevalent public health messaging analogies (comparing guns to cars, viruses, etc.) and proposing an alternative framework focused specifically on violent intent among a small, high-risk population.
- E** A conceptual analysis promoting a reframed perspective on addressing gun violence through public health strategies.
- R** Expert opinion (REVIEW)

Summary of findings: The article argues that public health approaches to gun violence should frame the issue as violent intent among a small, high-risk subset of owners rather than stigmatise all gun ownership to improve messaging, engage responsible owners, and allow targeted interventions. It cautions against using analogies that portray all gun owners as "diseased" and advocates for collaboration with stakeholders in developing solutions.

Hawkins, 1999

- S** N/A
- P** Youth violence in the community
- I** N/A
- D** An outline and narrative review of CTC
- E** Violence reduction
- R** Expert opinion (REVIEW)

Summary of findings: With adequate training, time and resources communities can prevent youth violence in a joined-up and coordinated way via the CTC 5-phase model.

Hawkins, Catalano, and Arthur, 2002

- S** Communities that Care
- P** The CTC model
- I** N/A
- D** Review of the CTC operating system
- E** Provides an overview of the CTC operating system and its utility regarding VP
- R** Case study

Summary of findings: The complexity of violence risk and protective factors requires a complex response. Communities are central to responses and can be supported by choosing evidence-supported interventions. CTC is implemented via 5 steps - Via high-quality evaluations, proven to have an impact on violence outcomes and processes that can be sustained over multiple years.

Healthcare Public Health Team / Southwark Public Health, 2019

- S** Southwark Council, England, UK
- P** Youth Violence
- I** Primary, Secondary, Tertiary
- D** Review of local demographics, epidemiology (police and medical data, youth offending services), risk factors, and impact, existing local response, surveys of stakeholder views
- E** Needs assessment
- R** Expert opinion (Review)

Summary of findings: Recommendations at primary, secondary, and tertiary levels with named suggested owners. (Themes: addressing root causes, transforming lives, cross-cutting recommendations).

Hernandez-Cordero et al.,

- S** Description of the process to develop a Community Mobilisation Plan and illustrates the use of evidence-based practices in the United States
- P** Development of intervention to reduce youth violence
- I** Primary
- D** Process level data
- E** Description of service development
- R** Case study

Summary of findings: Community mobilisation is essential; however, few expositions of their implementation are available. Social ecological perspective critical. Should be organic and supported by academia. Contextual risk factors should be identified using high-quality data. State support is important. Mobilisation focussed on four areas (education, peers, parenting, and community disorganisation). Evidence-based technical support is useful. Lack of funding can cause dissent.

Heurermann and Melzer-Lange 2002

- S** N/A
- P** Community coalitions
- I** N/A
- D** Review of community coalitions
- E** Community mobilisation
- R** Case study

Summary of findings: Coalitions have promise but require conscious and systematic efforts. Steps include: understanding the context, having a single mission, identifying effective strategies, gaining consensus on problems and solutions, and having clear leadership, including an array of stakeholders. Some of the steps appear to be principles rather than steps.

Irwin-Rogers, Fraser and Holmes, 2021

- S** N/A
- P** Interpersonal violence
- I** Primary, Secondary, Tertiary
- D** Review of theory with illustrative case studies.
Focus on barriers and solutions in whole systems / multi-agency collaboration w/in place-based PH approach.
Includes 4 short case studies
- E** Violence reduction
- R** Expert opinion (REVIEW)

Summary of findings: Systems leaders can facilitate PH approaches by: Facilitating and engaging in multi-agency collaboration; Engaging with communities, families, and young people to make sure services are informed by the best evidence and local needs; "Pursuing inward facing initiatives" to establish best policies and practices and a culture of curiosity and improvement.

Kingston et al., 2016

- S** Illustrative examples of the 6 CDC-funded Youth Violence Prevention Centre's in the USA
- P** Youth Violence-Evidence based community led violence prevention initiatives
- I** Universal and secondary
- D** Process level data
- E** Review of a coordinated approach to violence prevention across 6 national centres of excellence in violence prevention
- R** Multiple case study

Summary of findings: Focus on evidence-based practices and the need for implementation perspectives. Researchers/community partnerships central to PH implementation. Partnership leverage high-quality data to identify-target malleable risk/protective factors. Need for contextual adaptation.

Klose and Gordon, 2023

- S** 25 Interviews with practitioners and academics
- P** Youth involvement in public health responses
- I** None
- D** Qualitative
- E** Feasibility of youth involvement in PH responses
- R** Comparative study

Summary of findings: Lack of consistency with regard to defining a PH approach; not clear what conditions support it; "the participants in the study were not clear on what a PHA would look like in practice and what the approach actually consists of" p104; generally, agreement on collaboration but not clear on mechanisms; concept of violence infectious disease was common; successful PHA place emphasis on traumatic experiences.

Lai, 2008

- S** Asian American and Pacific Islander populations, USA.
- P** Perceptions of youth violence among Asian and Pacific young people – versus the reality as illustrated by the data.
- I** Primary and secondary
- D** Population demographics followed by two case studies of different approaches to the problem in different regions of the USA
- E** Community mobilisation
- R** Multiple case study of services and approaches to the problem

Summary of findings: Highlights the need for long-term university community commitments where universities provide information on youth justice data.

LGA, England

- S** N/A
- P** Serious violence
- I** Universal, secondary, tertiary
- D** Evidence review
- E** Approaches to reducing violence
- R** Expert opinion (REVIEW)

Summary of findings: It's an overview of the problem, a definition of a PH approach and an outline of evidence-based responses. Does not describe the implementation. Define, Identify risks, Design and evaluate, Scale up. Outlines evidence-based models/treatments. Outlines standards of evidence. Outlines the three tiers (Conaglen and Gallimore, 2014).

London Councils, 2018

- S** Reviews PH approaches in Glasgow (VRU), West Midlands, Hackney
- P** Youth Violence, esp Knife crime
- I** Primary, Secondary, Tertiary
- D** Outlines key components of three UK PH approaches to youth violence
- E** Violence reduction
- R** Expert opinion (REVIEW)

Summary of findings: A successful PH approach includes 'zero tolerance' with tailored support including, a means to escape. Also requires close cooperation and coordination between local authorities, schools, police, emergency services, NHS, and the voluntary sector.

Masho et al., 2016

- S** N/A
- P** Community violence
- I** N/A
- D** Review of the range of surveillance data available to public health intervention teams and an illustration of their collection, use and limitations
- E** Violence reduction
- R** Review article (REVIEW)

Summary of findings: Surveillance of violence involves the systematic collection, management, analysis, and interpretation of data. Makes use of existing sources of data. Sources include: national monitoring systems, mortality data, crime data, school discipline data, ED data, ambulance data, and population youth surveys.

Masseti and Vivolo, 2010

- S** CDC funded community partnerships for violence prevention via the UNITY programme
- P** Prevention of youth violence
- I** Primary, secondary and tertiary (although not specifically outlined)
- D** Opinion piece
- E** Characteristics of communities that exert influence on the development and epidemiology of youth violence
- R** Expert opinion (REVIEW)

Summary of findings: Public health initiatives are large and complex, thus requiring methodical and systematic approaches that are coordinated. Youth violence is a largely place-based issue thus requiring the leadership of communities. Understanding community context is important. Address multiple risks using a range of methods/models in a purposeful and data-driven way. Ensure that effective models make it into communities. Outcomes=improved Collective Efficacy. There is a need for a coherent unit/structure to take the lead.

Matjasko, Massetti, and Bacon., 2016

- S** Six Violence Prevention Centres, USA
- P** Youth Violence
- I** Primary, secondary, and tertiary
- D** Review of YVPCs
- E** The conceptual framework of YVPCs
- R** Multiple case study

Summary of findings: Significant investment via the centres. Leveraging evidence and experience (of previous iterations), formulation of a conceptual framework that includes inputs, outputs, and outcomes across the ecology. PH approaches require a strategic response across systems that make best use of data, evaluate responses, and target multiple levels of need concurrently. Largely descriptive with little critical analysis of the implementation of impact.

Mercy et al., 1993

- S** N/A
- P** Prevention of youth violence
- I** Universal, Secondary
- D** Overview of the PH aims processes and outcomes
- E** Public health implementation
- R** Expert opinion (REVIEW)

Summary of findings: The process, the strategies (objectives) and potential interventions must be supported by evidence. This is qualified with examples from practice.

Meyer et al., 2008

- S** Discusses the development of a Centre for Academic Excellence in Youth Violence Prevention in Richmond, Virginia, and the implementation of programs within the city
- P** Discuss the conceptual framework for developing the centre before discussing various activities in the centre and the community mobilization service.
- I** Primary, secondary, and tertiary.
- D** Discusses conceptual framework followed by description of activities
- E** Violence prevention
- R** Case study

Summary of findings: Practical example of university, and community partnerships in the design, implementation, and evaluation of interventions (e.g., RiPP). A conceptual model for the partnership is based on SET. Process included: relationship building; shared goals; shared expectations; incremental changes; communication plans. Needs assessment based on CTC approach. Although the community identified a range of issues responsible for the problem, there was no assessment or critique of the quality of those interventions. Key elements of the plan: Surveillance and Highly descriptive with little objective data.

Moore, 1995

- S** N/A
- P** Interpersonal violence
- I** N/A
- D** Phenomenological Comparative Analysis of Public Health and Criminal Justice Approaches to Violence Prevention
- E** Violence reduction
- R** Expert opinion (REVIEW)

Summary of findings: A public health approach should complement the criminal justice approach. PH approaches introduce a new access point to view violence often hidden from the CJ system (hospitals and doctors' surgeries). PH perspective brings expertise in data collection and analysis as well as multidisciplinary programming. PH focus on victim brings new people to the discussion on violence (i.e., minority populations).

Osidipe and Palmer, 2019

- S** Britain
- P** Serious Youth Violence
- I** N/A
- D** N/A
- E** N/A
- R** Expert opinion (REVIEW)

Summary of findings: Suggests calls for PH approach are premature. UK policies do not adequately address diversity and youth violence. Need for state investment in affected communities and families (particularly for culturally appropriate interventions) and possibly a national youth policy strategy first.

Pound and Campbell, 2015

- S** N/A
- P** An approach to theory-driven public health intervention design
- I** N/A
- D** Published literature contained within two medical sociology journals
- E** Analysis of explicit sociological theories underpinning risk-taking prevention programmes
- R** Evidence review of 32 papers (REVIEW)

Summary of findings: Social ecological perspective important. Given the evidence that behaviour is socially constructed, many of the prevention programmes target only individual behaviour and not the socialising processes or conditions. Summarised/grouped the findings into 9 theoretical areas. Overall describes the need for the theoretical foundation in PHVP work.

Powell et al., 1996

- S** 15 intervention projects engaging 5–18-year-olds
- P** Youth Violence in USA
- I**
- D** Review
- E** Summary of the findings of 15 research projects implementing violence prevention activities
- R** Multiple case study

Summary of findings: Violent behaviour emerges over a long time. There is utility in earlier stage intervention with families. Interventions implemented at different levels addressing proximal and distal risks. Social learning theory is the most referenced. Difficulties exist around the organisational issues, implementation issues and scientific issues. Conflict arises around definitions, responses, resources. Subject mobility makes follow-up studies difficult.

Prothrow-Smith, 1994

- S** Description of the problem of violence and the utility of public health
- P** Youth violence and public health
- I** N/A
- D** Opinion piece
- E** Description of public health prevention approaches
- R** Expert opinion (REVIEW)

Summary of findings: Violence is a complex social and economic issue. Public health techniques that combine awareness-raising, behavioural change and environmental change can be useful. A combination of approaches is often required. No assessment of implementation or effectiveness.

Public Health England, 2019

- S** England
- P** Serious Violence
- I** Primary, Secondary, Tertiary
- D** Presents 22 descriptive case studies within 5 principles of place-based, multi-agency PH approach: collaboration and co-production; co-operation in data and intelligence sharing; counter-narrative development; community consensus, which is central to the approach; +3 international ph cases
- E** Violence reduction
- R** Expert opinion (Review)

Summary of findings: Place-based, multi-agency approach requires whole systems approach. Change is complex, messy at the start, requiring time and flexibility. Small steps and small pockets of funding to build trusting relationships in communities.

Quigg et al., 2021

- S** Merseyside Violence Reduction Units
- P** Serious Violence & Youth Violence
- I** N/A
- D** Review of Violence reduction units' implementation and processes
- E** Effectiveness of the whole system approach
- R** Mixed methods)

Summary of findings: Facilitators = money; legislative footing; local buy-in; data from multiple sources; high-quality training, new technologies that connect people and ideas, participatory approaches such as peer research; colocation; community support facilitated by stories and straplines (e.g., we can't arrest our way out of this). Impediments change of personnel; inconsistent leadership; short-term funding; lack of expertise in specific areas (e.g., early years); disconnect between strategic roles and operational roles; the role of police; this takes time. As one participant noted.

Rajan, 2021

- S** N/A
- P** School violence and safety
- I** Primary, secondary and tertiary
- D** Review and analysis of existing literature
- E** A conceptual analysis and narrative synthesis of prior work through a public health framework, aiming to build connections across disciplines and inform future research directions in this important area. The design combines review, conceptual analysis, case examples, and derived implications.
- R** Expert opinion (REVIEW)

Summary of findings: A public health approach to school violence prevention, spanning primary to tertiary interventions, is advocated based on a review of prior research. However, gaps exist, including on firearms. More interdisciplinary work is needed linking health and education outcomes to inform comprehensive, evidence-based policies.

Research in Practice/Dartington, 2022

- S** England and Wales
- P** Youth violence
- I** N/A
- D** Evidence synthesis
- E** Distil of the core features of public health approaches and an outline of how leaders can implement them
- R** Expert opinion (REVIEW)

Summary of findings: Violence is a perennial problem that can have serious consequences. It has significant economic costs. The causes of violence are interrelated. The ecological model is useful for understanding factors across systems. "it is notable that these different levels do not operate in isolation, but in dynamic relation to one another. Violence must therefore be understood as an issue that requires intervention across multiple, connecting areas' (Rutter, 2017: 2602). Public health has a focus on upstream prevention. Violence is seen not as an individual pathology, but as a public health epidemic. Leverage the WHO definition of a PH approach: Define, Identify risks, Implement and evaluate. There is a need to also address systemic risks such as poverty and racism. Focus on what not how.

Rodney et al., 2008

- S** School-aged minority youth (N=3094)
- P** Youth violence
- I** Universal/targeted
- D** Data from one model over a four-year period
- E** Violence reduction
- R** Quan-pre/post-test

Summary of findings: Social bonds associated with greater/lower involvement in violence.

Russell, 2021

- S** N/A
- P** Youth Violence
- I** Primary
- D** Review existing reviews & reports. Classifies effectiveness looks at moderating factors (potential barriers and facilitators)
- E** Violence reduction, Interventions evaluated as: Effective; Promising; Mixed; Negative effect/Inconclusive; Inconclusive
- R** Evidence Review

Summary of findings: School/ed based approaches effective. Promising Intervention Inc.: school-based dating/intimate partner violence prevention programmes, parenting/family focussed approaches, mentoring, community-based coalitions. Mixed evidence in out-of-school activities, early childhood home visits. Deterrence and fear-based approaches as having no effect or potentially harmful. Limited evidence / no conclusion on programmes to prevent gang involvement/violence. Primary intervention evidence comes from wealthy countries à generalisability?

Rutherford, et al., 2007

- S** N/A
- P** Interpersonal Violence
- I** Primary
- D** A review of evidence on the utility of public health for violence prevention and the approaches required to implement
- E** Narrative review
- R** Expert opinion (REVIEW)

Summary of findings: Defines the systemic risk factors; the role of public health in violence prevention; and the approaches (systematic data collection, prevention and intervention strategies, political engagement, and advocacy).

Sabol, Coulton and Korbin, 2004

- S** N/A
- P** Youth Violence
- I** N/A
- D** Existing literature
- E** Community capacity
- R** Expert opinion (REVIEW)

Summary of findings: Theoretically grounded on the social ecology of crime and social disorganisation and collective efficacy. Because risk factors are correlated between different forms of violence, ecological efforts can prevent multiple types of victimisation. Defines the spheres of social control (private, parochial and state). Hyper segregation of deprived communities may result in closer ties, but excluding external supports reduces collective efficacy, thus increasing oppos to violence. This segregation may not be solely due to trust but has been determined by the state via housing and education policies. Vertical (focus on community life and impact of policy) vs horizontal practices (community are responsible for own outcomes).

Smokowski et al., 2018

- S** Three evidence-based programs middle schools; 400 justice-involved youth; and 300 parents in rural North Carolina
- P** Youth violence
- I** Universal, Secondary, and tertiary
- D** 3-level programme data and county-level administrative data
- E** Effective multi-targeted interventions
- R** Synthesis of evaluation data: 2* Quasi experiment; RCT; longitudinal using county-level data from 6 years before the interventions began

Summary of findings: Reports on the key findings from evaluations of a multi-faceted violence prevention programme in one county in United States. Multi-faceted approaches involve academics, policymakers, education, community. Underpinned by social ecological theory. Aggression: no stat sig. changes between treatment and control groups. Reduction in recidivism compared with control. Long-term effects on family functioning

Snider et al., 2010

- S** N=84 within each of the three phases in Toronto, Canada
- P** Youth violence
- I** Secondary, Tertiary
- D** Mixed-methods concept mapping for service design
- E** Utility of a co-design approach of a hospital-based community intervention for violence prevention
- R** Mixed methods evaluation

Summary of findings: Provides a novel, but evidence-supported method for engaging multiple groups in problem identification and service design processes.

Spivak et al., 1989

- S** The Violence Prevention Project of the Health Promotion Program for Urban Youth (Boston Department of Health and Hospitals)
- P** Youth Violence
- I** Primary, Secondary
- D** Pre-post-test surveys
- E** Impact on attitudes and knowledge; neighbourhood-specific data to measure impacts on behaviour
- R** Case study

Summary of findings: Describes Violence Prevention Project: 2 neighbourhoods, high school violence prevention curriculum, community implementation (education piece), secondary level support service development (inc training for agencies and dev of clinical treatment services), and mass media campaign.

Thao et al., 2011

- S** 388 6th – 12th graders. USA (Berkeley ACE), The article describes community mobilisation activity and collaborative partnership and evaluates programs to reduce youth violence among immigrant and minority populations
- P** Framework whereby research emerged from community mobilization activities which highlighted youth violence among immigrant and minority populations.
- I** Secondary level intervention
- D** Process-level data
- E** Description
- R** Case study

Summary of findings: PH approach is underpinned by community development principles and practices. Community mobilisation can be supported by partnerships with academia. Multi-tiered solutions offer promise.

Thornton, et al., 2002

- S** N/A
- P** Youth Violence
- I** Primary, Secondary, Tertiary
- D** The best practices presented are based on interviews with practitioners/evaluators and a review of evaluation lit for each strategy/ programme type.
- E** Community mobilisation
- R** Expert opinion (REVIEW)

Summary of findings: More research is needed to evaluate individual strategies, as well as effectiveness in concert.

Umetot et al., 2009

- S** Case example of two communities in Oahu, Hawaii
- P** Youth violence
- I** Primary, secondary
- D** Case example
- E** Challenges with system-wide responses
- R** Case study

Summary of findings: One of 10 centres of excellence for youth violence prevention funded by CDC. Leverage Social ecological theory/ Garbarino. Comprehensive responses are required to address multiple needs at multiple levels. Most violence prevention interventions focus on the individuals. There is a need: To build capacity (not clear what), to build trust (not clear how), and to attain sustainability (not clear how). The authors leverage Farrell and Camou 2006 for a grid to classify interventions according to ecological domain, developmental stage and level of risk (universal, selective, indicated). The process is iterative- e.g., surveillance begins with what is available and then leads to new surveys to fill gaps. Describe a lot of activity, mostly personality-led and not easily replicable. No clear process for making decisions around priorities and evidence-based responses. Began with micro responses and then led to more systemic responses. "But, strategic thinking that is emergent runs the risk of becoming undirected and somewhat haphazard" p227. "However, when taking a more incremental approach, it is important to be mindful of how smaller scale-micro-systemic centered activities that lead to deeper understanding and trust can also open opportunities to expand the work to other levels of the social ecology" 228. There is a risk that without coordination, the cross-cutting efforts become disjointed.

Vivolo, Matjasko and Massetti, 2011

- S** USA ACEs
- P** Youth violence
- I** Unclear
- D** Case example
- E** Implementation of the ACE for Youth Violence Prevention
- R** Case study

Summary of findings: Need for a logic model; heavy gov't investment over a prolonged period (e.g., 5 years); highly descriptive and lacking specificity. E.g., outlines defining the priorities as key does not describe how this is done.

Watson-Thompson et al., 2008

- S** Case study of a community partnership in the Ivanhoe Region of Kansas City, Missouri
- P** 12-point framework for supporting and evaluating community mobilization. Case study to illustrate the utility of the 12-point framework.
- I** Primary
- D** Outlines a 12-point framework for developing and improving services.
- E** Community mobilisation
- R** Case study

Summary of findings: Using the framework on one youth project facilitated 26 changes and is described as an effective catalyst for mobilising community support.

Whitehill et al., 2014

- S** 24 violence interrupters within 2 US cities (Chicago and Baltimore). Had more than 6 months of experience in the role
- P** Community violence
- I** Tertiary
- D** Qual focus groups
- E** Focus groups. Case studies of 6 communities in two inner cities using the model (Baltimore and Chicago) and their experiences as a VI
- R** Multiple case study

Summary of findings: There is a dearth of literature on the implementation of VP programmes. Authors argue for the need to keep arm's length from the police. Utility of violence interrupters and credible messengers. Primarily use conflict resolution and mediation techniques. There may be a need to adapt programmes to fit with local context.

Zimmerman et al., 2011

- S** Evaluation of staff and young people N=22
Youth appears to have n=22 at year 1, n=22 at year 2 and n=18 at year 3.
- P** The Yes Intervention seeks to increase social integration and cohesion through intergenerational community participation.
- I** Primary
- D** Evaluation of youth participants – combined qualitative and quantitative findings. Describes the theoretical background and process of developing and refining the intervention
- E** Community mobilisation
- R** Mixed-methods evaluation

Summary of findings: A focus on whole-community activities is critical given many violence prevention efforts are school-located.

