violence prevention
the evidence

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Series of briefings on violence prevention

This series of seven briefings for advocates, programme designers and implementers and others summarizes the evidence for the effectiveness of the following seven main strategies for preventing interpersonal and self-directed violence: (1) increasing safe, stable and nurturing relationships between children and their parents and caregivers; (2) developing life skills in children and adolescents; (3) reducing availability and harmful use of alcohol; (4) reducing access to guns, knives and pesticides; (5) promoting gender equality; (6) changing cultural norms that support violence; and (7) victim identification, care and support.

For a searchable evidence base on interventions to prevent violence, please go to: www.preventviolence.info.

For a library of violence prevention publications, including this series of briefings, please go to: http://www.who.int/violenceprevention/publications/en/index.html

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Overview

Overview

As noted in the *World report on violence and health*,[1] violence has always been part of the human experience. Today, violence results in more than 1.5 million people being killed each year, and many more suffer non-fatal injuries and chronic, non-injury health consequences as a result of suicide attempts, interpersonal violence (youth violence, intimate partner violence, child maltreatment, elder abuse and sexual violence) and collective violence (war and other forms of armed conflict). Overall, violence is among the leading causes of death worldwide for people aged 15–44 years.

"Despite the fact that violence has always been present, the world does not have to accept it as an inevitable part of the human condition. As long as there has been violence, there have also been systems – religious, philosophical, legal and communal – that have grown up to prevent or limit it. None has been completely successful, but all have made their contribution to this defining mark of civilization. Since the early 1980s, the field of public health has been a growing asset in this response. A wide range of public health practitioners, researchers and systems have set themselves the tasks of understanding the roots of violence and preventing its occurrence".[1]

Their experience and the scientific studies they have conducted clearly demonstrate that violence can be prevented and its impact reduced, in the same way that public health efforts have prevented and reduced pregnancy-related complications, workplace injuries, infectious diseases and illness resulting from contaminated food and water in many parts of the world. The factors that contribute to violent responses – whether they are factors of attitude and behaviour or related to larger social, economic, political and cultural conditions – can be changed.

Violence can be prevented. This is not an article of faith, but a statement based on evidence. *Violence prevention: the evidence* is a set of seven briefings based on rigorous reviews of the literature which examines scientific evidence for the effectiveness of interventions to prevent interpersonal and self-directed violence.[2] Each briefing focuses on a broad strategy for preventing violence, and under that umbrella reviews the evidence for the effectiveness of specific interventions. The violence prevention strategies covered in the seven briefings are:

1. Developing safe, stable and nurturing relationships between children and their parents and caregivers;
2. Developing life skills in children and adolescents;
3. Reducing the availability and harmful use of alcohol;
4. Reducing access to guns, knives and pesticides;
5. Promoting gender equality to prevent violence against women;
6. Changing cultural and social norms that support violence;
7. Victim identification, care and support programmes.

[1] Krug EG et al., eds. *World report on violence and health*. Geneva, World Health Organization, 2002.

[2] While these briefings and this overview draw on a wide range of literature, they are particularly indebted to the following two previous publications: (1) Rosenberg ML et al. Interpersonal violence. In Jamison DT et al. (eds.) *Disease Control Priorities in Developing Countries*, 2nd Edition. Washington, D.C.: Oxford University Press and The World Bank, 2006:755–770; (2) Mercy JA et al. Preventing violence in developing countries: a framework for action. *International Journal of Injury Control and Safety Promotion* 2008;15(4):197–208.

This document summarizes the headline findings from each of the seven briefings and spotlights the specific interventions within each strategy that have the strongest evidence for preventing violence. Table 1 presents the overview, indicating for each intervention the strength of the evidence for its effectiveness and the types of violence it has been found to prevent.

TABLE 1

Overview of violence prevention interventions with some evidence of effectiveness by types of violence prevented

Intervention	Type of violence					
	CM	IPV	SV	YV	EA	S
1. Developing safe, stable and nurturing relationships between children and their parents and caregivers						
Parent training, including nurse home visitation	●			○		
Parent-child programmes	○			○		
2. Developing life skills in children and adolescents						
Preschool enrichment programmes				○		
Social development programmes				●		
3. Reducing the availability and harmful use of alcohol						
Regulating sales of alcohol			○			
Raising alcohol prices			○			
Interventions for problem drinkers		●				
Improving drinking environments				○		
4. Reducing access to guns, knives and pesticides						
Restrictive firearm licensing and purchase policies				○		○
Enforced bans on carrying firearms in public				○		
Policies to restrict or ban toxic substances						○
5. Promoting gender equality to prevent violence against women						
School-based programmes to address gender norms and attitudes		●	○			
Microfinance combined with gender equity training		○				
Life-skills interventions		○				
6. Changing cultural and social norms that support violence						
Social marketing to modify social norms		○	○			
7. Victim identification, care and support programmes						
Screening and referral		○				
Advocacy support programmes		●				
Psychosocial interventions			○			
Protection orders		○				

KEY

● Well supported by evidence (multiple randomized controlled trials with different populations)

○ Emerging evidence

CM – Child maltreatment; IPV – Intimate partner violence; SV – Sexual violence; YV – Youth violence; EA – Elder Abuse; S – Suicide and other forms of self-directed violence

The interventions

The seven briefing documents themselves provide more detail about these and other interventions, additional examples of their implementation and a full discussion of the strengths and limitations of the evidence for their effectiveness.

1. Developing safe, stable and nurturing relationships between children and their parents and caregivers

Some interventions that encourage nurturing relationships between parents (or caregivers) and children in their early years have been shown to prevent child maltreatment and reduce childhood aggression. These types of interventions also have the potential to prevent the life-long negative consequences of child maltreatment for mental and physical health, social and occupational functioning, human capital and security and, ultimately, for social and economic development. There is also emerging evidence that they reduce convictions and violent acts in adolescence and early adulthood, and probably help decrease intimate partner violence and self-directed violence in later life.

High-quality trials in the United States of America and other developed countries have shown that both the Nurse Family Partnership home-visiting programme and the Positive Parenting Programme (Triple P) reduce child maltreatment. In home-visiting programmes, trained personnel visit parents and children in their homes and provide health advice, support, child development education and life coaching for parents to improve child health, foster parental care-giving abilities and prevent child maltreatment. Parenting education programmes, such as the Triple P, are usually centre-based and delivered in groups and aim to prevent child maltreatment by improving parents' child-rearing skills, increasing parental knowledge of child development and encouraging positive child management strategies. Evidence also suggests that parent and child programmes – which typically incorporate parenting education along with child education, social support and other services – may prevent child maltreatment and youth violence later in life.

As evidence for the effectiveness of these parenting and parent-child programmes in high-income countries continues to expand, the time is ripe to initiate their large-scale implementation and outcome evaluation in low-income and middle-income countries.

2. Developing life skills in children and adolescents

Evidence shows that the life-skills acquired in social development programmes (which are aimed at building social, emotional, and behavioural competencies) can prevent youth violence, while preschool enrichment programmes (which provide children with academic and social skills at an early age) appear promising. Life skills help children and adolescents effectively deal with the challenges of everyday life. Such programmes that target children early in life can prevent aggression, reduce involvement in violence, improve social skills, boost educational achievement and improve job prospects. These effects are most pronounced in children from poor families and neighbourhoods. The benefits of high-quality programmes which invest early in an individual's life have the potential to last into adulthood.

Most of the research on life skills programmes has been conducted in high-income countries, particularly the United States. More evidence is needed on the impacts of preschool enrichment and social development programmes in low-income and middle-income countries.

3. Reducing the availability and harmful use of alcohol

Evidence is emerging that violence may be prevented by reducing the availability of alcohol, through brief interventions and longer-term treatment for problem drinkers and by improving the management of environments where alcohol is served. Currently, evidence for the effectiveness of such interventions is rarely from randomized controlled trials and comes chiefly from developed countries and some parts of Latin America.

Alcohol availability can be regulated by restricting the hours or days it can be sold and by reducing the number of alcohol retail outlets. Reduced sales hours have generally been found to be associated with reduced violence and higher outlet densities with higher levels of violence. Economic modelling strongly suggests that raising alcohol prices (e.g. through increased taxes, state controlled monopolies and minimum price policies) can lower consumption and, hence, reduce violence.

Brief interventions and longer-term treatment for problem drinkers – using, for instance, cognitive behavioural therapy – have been shown in several trials to reduce various forms of violence such as child maltreatment, intimate partner violence and suicide.

Some evidence is beginning to support interventions in and around drinking establishments that target factors such as crowding, comfort levels, physical design, staff training and access to late night transport.

4. Reducing access to guns, knives and pesticides

Evidence emerging suggests that limiting access to firearms and pesticides can prevent homicides (most of which occur between young males between 15–29-years-old), suicides and injuries and reduce the costs of these forms of violence to society. More rigorous studies are, however, needed.

There is some evidence, for example, to suggest that jurisdictions with restrictive firearms legislation and lower firearms ownership tend to have lower levels of gun violence. Restrictive firearm licensing and purchasing policies – including bans, licensing schemes, minimum ages for buyers, background checks – have been implemented and appear to be effective in countries such as Australia, Austria, Brazil and New Zealand. Studies in Colombia and El Salvador indicate that enforced bans on carrying firearms in public may reduce homicide rates.

Safer storage of pesticides, bans and replacement by less toxic alternatives could prevent many of the estimated 370 000 suicides caused by ingestion of pesticides every year. International conventions attempt to manage hazardous substances; however, many highly toxic pesticides are still widely used. Research suggests, however, that bans must be accompanied by evaluations of agricultural needs and replacement with low-risk alternatives for pest control.

5. Promoting gender equality to prevent violence against women

Though further research is needed, some evidence shows that school and community interventions can promote gender equality and prevent violence against women by challenging stereotypes and cultural norms that give men power and control over women.

School-based programmes can address gender norms and attitudes before they become deeply engrained in children and youth. Trials of the Safe Dates programme in the United States and the Youth Relationship Project in Canada, which also addresses dating violence, have reported positive results.

Outcome evaluation studies are beginning to support community interventions that aim to prevent violence against women by promoting gender equality. Evidence suggests that programmes that combine microfinance with gender equity training can reduce intimate partner violence. Some of the strongest evidence is for the IMAGE initiative in South Africa which combines microloans and gender equity training. Another intervention for which evidence of effectiveness is building up is the Stepping Stones programme in Africa and Asia which is a life-skills training programme which addresses gender-based violence, relationship skills, assertiveness training and communication about HIV.

6. Changing cultural and social norms that support violence

Rules or expectations of behaviour – norms – within a cultural or social group can encourage violence. Interventions that challenge cultural and social norms supportive of violence can prevent acts of violence and have been widely used, but the evidence base for their effectiveness is currently weak. Further rigorous evaluations of such interventions are required.

The effectiveness of interventions addressing dating violence and sexual abuse among teenagers and young adults by challenging social and cultural norms related to gender is supported by some evidence. Other interventions appear promising, including those targeting youth violence and education through entertainment ("edutainment") aimed at reducing intimate partner violence.

7. Victim identification, care and support programmes

Interventions to identify victims of interpersonal violence and provide effective care and support are critical for protecting health and breaking cycles of violence from one generation to the next.[3]

Evidence of effectiveness is emerging for the following interventions: screening tools to identify victims of intimate partner violence and refer them to appropriate services; psychosocial interventions – such as trauma-focused cognitive behavioural therapy – to reduce mental health problems associated with violence, including post-traumatic stress disorder; and protection orders, which prohibit a

[3] The briefing does not cover the area of pre-hospital and emergency medical care since this is already addressed by the following guidelines: Mock C. et al. *Guidelines for trauma quality improvement*. Geneva, World Health Organization, 2009; Sasser S. et al. *Prehospital trauma care systems*. Geneva, World Health Organization, 2005; Mock C. et al. *Guidelines for essential trauma care*. Geneva, World Health Organization, 2004.

perpetrator from contacting the victim, to reduce repeat victimization among victims of intimate partner violence. Several trials have shown that advocacy support programmes – which offer services such as advice, counselling, safety planning and referral to other agencies – increase victims' safety behaviours and reduce further harm.

Harnessing policies that address social determinants of violence

Interpersonal violence is strongly associated with such macro-level social factors as unemployment, income inequality, rapid social change and access to education. Any comprehensive violence prevention strategy must not only address those risk factors targeted by the interventions outlined in these briefings, but must be integrated with policies directed at these macro-level social factors and harness their potential to reduce the inequities which fuel interpersonal violence.

Next steps

The last decades have seen a rapid growth in the awareness that violence can be prevented. In high-income countries, in particular, there has been a clear increase in the number of governments actively developing violence prevention policies and implementing programmes informed by the kinds of evidence reviewed in this document and the seven briefings. However, the challenge of scaling up violence prevention investments in low-income and middle-income countries remains. This requires encouraging wealthy donor countries to devote more development aid to the issue. Just as importantly, it also calls for getting governments to shift more of their budget from caring for victims of violence and from detecting, prosecuting and punishing its perpetrators to preventing violence. Based on these reflections, the following next steps, if implemented, would do much to help advance the violence prevention agenda, and with it the safety, security and well being of people everywhere.

- The need to expand the evidence base in no way precludes **taking action now and implementing interventions**, guided by the evidence base described in these briefings, to prevent interpersonal and self-directed violence in all countries.
- **Intensify and expand violence prevention awareness among decision makers** in low-income and middle-income countries and leaders of high-income countries and international donor agencies.
- **Increase the flow to low-income and middle-income countries of financial resources and technical support for violence prevention**. Currently, the international community, through bodies such as the Global Fund to Fight AIDS, Malaria and Tuberculosis, supports disease prevention in developing countries; it could also contribute to the start-up costs of national violence prevention initiatives.
- **Strengthen evidence-based, prevention-oriented collaborative work between public health and criminal justice agencies**, these being the two arms of government most directly impacted by violence and with the highest stakes in its prevention.
- **Enhance investment in research on violence and violence prevention**, especially in low-income and middle-income countries, and particularly with a view to expanding the number of outcome evaluation studies.

Violence prevention: the evidence can help advocates, policy makers and programme designers and implementers to reduce the heavy burden of death and injury caused by violence. It can contribute towards reducing the far-reaching impact violence can have on mental and physical health, school and job performance, people's ability to successfully relate to others, the safety of communities and, ultimately, the social and economic development of countries.

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1.

Preventing violence through the development of safe, stable and nurturing relationships between children and their parents and caregivers

Overview

Interventions that encourage safe, stable and nurturing relationships between parents (or caregivers) and children in their early years can prevent child maltreatment and reduce childhood aggression.

This briefing looks at the effectiveness of interventions that encourage safe, stable and nurturing relationships for preventing child maltreatment and aggressive behaviour in childhood. The focus is on primary prevention programmes, those that are implemented early enough to avoid the development of violent behaviour such as child maltreatment and childhood aggression (a risk factor for youth violence).

There are four types of violence prevention programmes that aim to develop these nurturing relationships.

Parenting programmes (e.g. the Positive Parenting Program or Triple P) provide information and support to help parents. Parent and child programmes (e.g. Early Head Start) provide both parents and their children with family support, preschool education, child care and health and community services. Social support groups (e.g. Parents Anonymous) help parents build social networks to provide peer support and reduce social isolation. Media interventions (e.g. the television series "Families") aim to educate all parents to increase their knowledge and strengthen awareness of child maltreatment.

Evidence suggests that parenting and parent and child programmes can reduce child maltreatment and aggressive behaviour in children.

High-quality evidence has shown, for instance, that the Nurse Family Partnership home-visiting programme and the Triple P in the United States of America reduce child maltreatment. Findings also suggest that parenting and parent and child programmes can reduce problematic aggressive, disruptive and defiant behaviour in children in the short term, and arrests, convictions and violent acts in adolescence and early adulthood.

More rigorous evaluations of prevention programmes worldwide are needed.

More rigorous evaluations using actual child maltreatment, rather than risk factors for child maltreatment, as an outcome measure are required, as are more cost-effectiveness studies. In addition, more research is urgently needed on the applicability and effectiveness of violence prevention programmes in developing countries.

The life-long negative consequences of child maltreatment can be prevented.

There is some strong evidence to show that programmes that promote safe, stable and nurturing relationships between parents (or caregivers) and children reduce child maltreatment and its life-long negative consequences for mental and physical health, social and occupational functioning, human capital and security and, ultimately, for economic development.

1. Introduction

BOX 1

Early relationships influence physical and social development

Positive, secure attachments with caregivers are linked to:

- Increased social skills in infancy, including greater competence, sociability, friendliness, cooperativeness, compliance, engagement with a peer, development of a conscience, ability to imitate mothers;
- Greater social activity, popularity, self-esteem, a positive outlook in childhood;
- Increased problem-solving skills and IQ in infancy, academic skills in adolescence;
- Greater ability to regulate stress in infancy; and
- Positive health and lifestyle choices in adulthood.

Insecure attachments with caregivers are linked to:

- Use of aggression by age four years;
- Social withdrawal in childhood;
- Higher dependence, non-compliance, hostility, impulsivity and aggression in preschool and kindergarten;
- Reactive attachment disorder in childhood, characterized by disturbed and inappropriate social behaviour, including violent behaviour; and
- Anxiety, depression, conduct disorder, anti-social personality disorder and other mental health problems.

Safe, stable and nurturing relationships with parents and other caregivers are central to a child's healthy development (*1*,*2*). Such relationships offer lasting affection, parental responsiveness, trust and guidance, enabling children to safely explore the world and develop the skills required to establish loving and supportive relationships with others. Early relationships are thought to affect structural and functional development of the brain, and in turn, the cognitive, emotional and social development of a child (**Box 1**; *2*,*3*). Lack or disruption of safe, stable and nurturing relationships in early childhood can have severe and long-lasting effects and is related to a variety of problems from childhood through to adulthood. These include anxiety and depression, poor communication skills, low self-esteem, difficulties forming peer relationships, lack of empathy for others in distress, anti-social behaviour, poor educational attainment and economic productivity and being a perpetrator or victim of violence (*1*–*6*).

Child maltreatment is a particular risk for families that experience difficulties creating safe, stable and nurturing relationships.[1] For instance, a child has greater risk of being abused if its parents

[1] "Child abuse or maltreatment constitutes all forms of physical and/or emotional ill-treatment, sexual abuse, neglect or negligent treatment or commercial or other exploitation, resulting in actual or potential harm to the child's health, survival, development or dignity in the context of a relationship of responsibility, trust or power"(*7*).

have little understanding of child development and, therefore, unrealistic expectations about behaviour. The same is true if the parents offer less nurturing and affection; are less responsive; have a more controlling, aggressive or inconsistent parental approach; and approve of physical punishment to discipline a child (*7–9*). Regardless of whether a child is maltreated, however, poor relationships between caregivers and children can increase the risk of aggressive and violent behaviour displayed in childhood and later in life (e.g. youth violence) (*7*).

There are many strategies employed to improve parent–child relations and parenting skills, and so encourage safe, stable and nurturing relationships. Although many of these do not explicitly aim to reduce violent behaviour by parents or children, their ability to improve relationships suggests they also have potential to prevent both child maltreatment and childhood aggressive behaviour. Being a victim of child maltreatment is associated with victimization and perpetration of other types of violence, such as intimate partner, sexual and self-directed violence. Consequently, programmes that prevent child maltreatment also have the potential to reduce involvement in violence later in life (*10*). This briefing provides a brief overview of the types of programmes that can encourage safe, stable and nurturing relationships, focusing in particular on their effectiveness in preventing child maltreatment and aggressive behaviour in childhood. It deals mainly with primary prevention, aimed at preventing violent behaviour – such as child maltreatment – before it manifests itself, rather than responding to it once it has occurred. It includes programmes that aim to reduce problematic childhood behaviour such as conduct disorder, since this is a risk factor for youth violence and other types of violence later in life (*7*).

There are four main types of interventions that can help develop safe, stable and nurturing relationships between children and their caregivers: parenting programmes, parent and child programmes, social support and media interventions (**Box 2**). These vary in their primary objectives, which include improving child or maternal health, decreasing problematic child behaviour, promoting family wellness, building social networks, increasing parenting skills and reducing child maltreatment. All, however, have the potential to improve relationships between parents and children.

BOX 2

Types of programmes to strengthen relationships between children and their parents and other caregivers (see also Table 1)

PARENTING PROGRAMMES (e.g. Nurse Family Partnership and Triple P): These centre on increasing parental skills and improving the relationship between parents and children. With support and information, they strengthen parents' ability to adapt to the changing needs of the child, develop strategies to cope with their child's behaviour and build knowledge of child development and capabilities (*7,8,11,12,25*).

PARENT AND CHILD PROGRAMMES (e.g. Early Head Start and Sure Start): Family support, preschool education, child care and health and community services are common components of these programmes. The objectives are normally wide-ranging, including, for instance, promoting children's academic success, encouraging parental involvement in their child's education, improving maternal health, encouraging child development and providing parental support and education (*13,14*).

SOCIAL SUPPORT (e.g. Parents Anonymous and Circle of Friends): These groups help parents build social networks to provide peer support, increase problem-solving and coping skills, reduce social isolation and strengthen parental communication (*15*).

MEDIA INTERVENTIONS (e.g. "Families" and Play Nicely): These provide information to parents through a variety of media: newsletters, magazines, television, etc. They aim to increase parenting knowledge and strengthen awareness of child maltreatment in all parents (*16*).

TABLE 1

Programmes to encourage safe, stable and nurturing relationships*

PARENTING	**Triple P (Positive Parenting Program)**	**Nurse Family Partnership**
	Offers different levels of support for parents, from providing information (level 1) to sessions addressing severe childhood problems (level 5). Triple P aims to create a stable, harmonious and supportive family; reduce problematic behaviour; build positive relationships with children; and manage problems effectively.	An evidence-based nurse home-visiting programme that aims to improve the health, well-being and self-sufficiency of low-income first-time mothers and their children. Women enroll as early as possible, ideally by the 16th week of pregnancy. Visits include prenatal health advice and support, child development education and life coaching for the mother.
	www.triplep.net	**www.nursefamilypartnership.org**
	Implemented in Australia, Belgium, Canada, Germany, Hong Kong, New Zealand, Singapore, Switzerland, the United Kingdom and the United States, for example.	Implemented in the United States, for example.
PARENT AND CHILD	**Early Head Start**	**Sure Start**
	This community-based programme targets vulnerable families with children up to age three, aiming to improve the health of pregnant women, encourage child development, provide family support through home-visiting or community centre sessions and provide early childhood and parent education.	A community-based initiative, Sure Start brings together early child education, child care and health and family support, spanning pregnancy up to the child's 14th year. Some components are available to all parents, others target vulnerable groups such as families living in disadvantaged areas.
	www.ehsnrc.org	**www.surestart.gov.uk**
	Implemented in the United States, for example.	Implemented in the United Kingdom, for example
SOCIAL SUPPORT	**Circle of Parents**	**Parents Anonymous**
	Parent-led, weekly self-help group for sharing of ideas, support, information and resources. Groups are designed for all parents, with children of all ages, and aim to prevent child maltreatment and neglect and strengthen families.	A self-help support group that aims to strengthen families and build caring communities to prevent child maltreatment and neglect. Led by parents and professionally trained facilitators, they are open to all parents and aim to reduce social isolation, develop coping strategies and offer social support.
	www.circleofparents.org	**www.parentsanonymous.org**
	Implemented in the United States, for example.	Implemented in Bermuda, Canada, Malawi, Nigeria, South Africa and the United States, for example.
MEDIA	**"Families"**	**Play Nicely**
	Developed as a component of a Triple P parenting programme, "Families" is a 12-episode television series that explores parenting strategies to cope with common behavioural problems and prevent problematic behaviour. It also discusses family functioning and offers a parent information sheet.	A 30-minute CD-ROM that aims to inform parents about effective ways of responding to childhood aggression.
	(16)	***(58)***
	Implemented in Australia, for example.	Implemented in the United States, for example.

* Not all of these programmes have been evaluated for their effectiveness in preventing child maltreatment and childhood aggression.

2. Parenting programmes

Parenting programmes are among the most common strategies to improve parent–child relationships. Programmes can be offered to groups or individuals through home visits (home-visiting programmes) or at designated centres in communities, and they can be presented to all families, or targeted at vulnerable families (e.g. disadvantaged or teenage mothers). They are usually delivered by a nurse, social worker, or other professional (although sometimes this is done by experienced mothers) during the first two or three years of a child's life (some programmes begin prenatally).

A number of factors are thought to increase the effectiveness of parenting programmes, including:

- Offering services in more than one setting (e.g. office and home) (*17*);
- Providing both group and individual services (rather than just one) (*17*,*18*);
- Providing at least 12 sessions (*17*) or interventions spread out over a longer duration (*19*,*20*);
- Having nurses, social workers, or other professionals (rather than non-professionals, such as lay helpers) deliver programmes (*20*); and
- Training in positive interactions between parents and children, emotional communication, the use of time-out as a disciplinary technique, responding consistently to children's behaviour and making time in sessions for parents to practice new skills with their own children (*21*).

2.1 Prevention of child maltreatment

A number of evaluations of parenting programmes suggest that they help prevent child maltreatment (*19*,*20*,*22–25*), and improve aspects of family life that may be related to child maltreatment, such as parental attitudes (*18*), child rearing or parenting skills (*18*,*26*,*27*), family wellness (*19*) and relationships with partners (*28*). For example, a review of early childhood home-visiting programmes suggests an overall reduction of reported child maltreatment of approximately 39% following intervention (*20*). However, home-visiting programmes are not uniformly effective in reducing child maltreatment (*29*). Furthermore, it is difficult to draw any firm conclusions about the efficacy of parenting programmes overall, because:

- Different evaluations define and measure child maltreatment differently (*30*). For instance, some use direct measures of child maltreatment (e.g. reports from child protective services), while others use risk factors for child maltreatment (e.g. measures of child abuse potential or parental stress);
- Evaluations are often limited by methodological weaknesses (*31*,*32*) and there are few randomized trials on whether interventions prevent maltreatment (*29*,*33*);
- Child maltreatment may be more likely to be detected in homes that are visited (a problem termed "surveillance bias") (*32*); and
- Programmes are often multifaceted and complex, making the effects difficult to quantify (*34*).

The effects of parenting programmes are also likely to depend on factors such as the length of the programme and frequency of visits or sessions, the type of professional employed, target group, content, outcome measures and follow-up period.

The programme with some of the best evidence of effectiveness is the Nurse Family Partnership (see

BOX 3

Population-based prevention of child maltreatment using the Positive Parenting Program (Triple P)

In an evaluation of Triple P in South Carolina in the United States, 18 counties were randomly assigned to either dissemination of the Triple P or to the services-as-usual control condition. Dissemination involved Triple P professional training for the existing workforce (over 600 service providers), as well as universal media and communication strategies. Large effects were found for three independently derived population indicators: substantiated child maltreatment, child out-of-home placements and child maltreatment injuries. The Triple P resulted in 688 fewer cases of child maltreatment, 240 fewer out-of-home placements, and 60 fewer children with injuries requiring hospitalization or emergency room treatment for every 100 000 children under age eight years. This study is the first to randomize geographical areas and show preventive impact on child maltreatment at a population level using evidence-based parenting interventions (*25*).

Table 1), in which nurses visit the homes of families to improve the health, well-being and self-sufficiency of low-income, first-time parents and their children. In a 15-year follow-up of a randomized controlled trial of this programme in Elmira in the United States, participants were 48% less likely to be identified as perpetrators of child maltreatment than members of the control group (*35*). Furthermore, during pregnancy and in the first two years of their child's life, participants at high risk of care-giving dysfunction showed improvements in pre-natal health-related behaviour, pregnancy outcomes, quality of the home environment and the number of injuries recorded in medical files (*36*). Another well evaluated programme is Early Start, an intensive home-visiting programme targeted at families facing stress and difficulty. A randomized controlled trial of the programme in New Zealand found that at age three years Early Start children had about a third of the rate of parent-reported physical abuse than members of the control group. There was no difference in the percentage of participants and members of the control arm who were in contact with official agencies for child maltreatment. However, since participants were under regular surveillance by family support workers, they were more likely to be referred to agencies for child maltreatment concerns than were members of the control group (*37*).

The Nurse Family Partnership and Early Start share common features that may help explain their effectiveness in reducing child maltreatment: both were developed as research programmes rather than service provision models, both use workers with college or university degrees and both have made significant investments to ensure the fidelity of programme delivery (*29*).

Parenting programmes have also been shown to be effective in reducing child maltreatment when presented outside the home (**Box 3**). In a hospital setting, for instance, all new parents in maternity units throughout Western New York State were given a one-page leaflet on preventing shaken baby syndrome, shown an 11-minute video tape that discussed the dangers of shaking, along with methods of dealing with chronic infant crying and were asked to sign a commitment statement confirming their receipt and understanding of the materials. Using a cohort design, the evaluation study reported a 47% reduction in the number of abusive head injuries reported to the children's hospital in the region (over the following five-year period) compared to a similar period before the intervention (*38*).

2.2 Preventing aggressive behaviour in children

Parenting programmes have been successful in improving emotional and behavioural problems in children in the short term, including conduct disorders characterized by aggressive, destructive behaviour (*39–45*). For instance, a randomized controlled trial of a Triple P programme in Switzerland followed 150 couples who had children between 2 and 12 years of age. The percentage of participating mothers who reported dysfunctional child behaviour fell from 48% before the intervention to 22% one year later (compared to 53% before and 55% after for mothers in the control group) (*45*). Similarly in Norway, a randomized controlled trial was implemented to evaluate the efficacy of the Incredible Years[2] programme in treating children with

[2] A parent training, teacher training and child social skills training programme that has proven effective for reducing children's aggression and behaviour problems and increasing social competence at home and at school.

conduct problems. The evaluation found that mean scores on a child behaviour test, in which higher scores indicate greater frequency of problematic behaviour, decreased more among participants (by 41 points from before to after the programme) than among members of the control group (by 22 points over the same period) (*47*). In addition, decreases in test scores were still evident among participants one year after the programme.

Longer-term benefits have also been reported. For instance, in a randomized trial of Healthy Families Alaska in the United States, participants and controls were followed over a period of two years. At the end of this time, compared to children in the control group, more participating children scored in the normal range for problem behaviour, such as externalizing behaviour (e.g. over-activity, aggression, defiance: 82% for participants versus 77% for controls) and internalizing behaviour (e.g. inhibition, depression, withdrawal: 87% for participants versus 79% for controls) (*48*). In another randomized controlled trial in the United States, of the Nurse Family Partnership, researchers followed-up participants for 15 years after the initial study. Compared with controls, adolescents whose mothers had received home visits during pregnancy and postnatally reported fewer incidents of running away, arrests, convictions and violations of probation and behavioural problems related to the use of alcohol and drugs (*49*).

3. Parent and child programmes

Parent and child programmes provide the most comprehensive interventions for improving family relationships and other beneficial outcomes. Typically, these programmes target vulnerable families with teenage mothers or parents with low incomes, and their services are delivered in the community at designated centres. Programmes often incorporate parenting programmes along with child education, social support and other services.

3.1 Prevention of child maltreatment

Two systematic reviews concluded that parent and child programmes could help prevent child maltreatment (*26*) and improve factors that may be related to maltreatment, such as family wellness (*20*). Our understanding of their impact is limited, however, by the relative scarcity of evaluation studies of parent and child programmes, compared to the number of evaluations of other types of early childhood interventions. Nevertheless, a randomized trial of an Early Head Start programme in the United States (**Table 1**) found that compared with parents in the control group, participating parents were less likely to report spanking their child in the previous week (47% for participants versus 54% for controls) (*50*). A non-randomized, matched-group cohort study of children in the Chicago Child-Parent Center preschool programme also indicated beneficial outcomes. The programme provided comprehensive education, family and health services to children aged 3–9 years who lived in Chicago's poorest neighbourhoods. This included educational workshops and home-visits to parents. As the cohort study reveals, a follow-up of the programme 15 years later found that by age 17 years, participating children had lower lifetime rates of child maltreatment – as measured by court petitions and referrals to child protection services – than did children in the control group (5.0% for participants versus 10.5% for controls) (*51*).

3.2 Reducing aggressive behaviour in children

Parent and child programmes can be effective in reducing aggressive or violent child behaviour. For instance, in a randomized trial of the above-mentioned Early Head Start programme parents were asked to rate their child's aggressive behaviour using a behaviour checklist. Compared with those in the control group, participating children were rated by their parents as having lower levels of aggressive behaviour at the end of the programme, when the average age of the children was 37 months (*50*). The beneficial effects of parent and child programmes may also be sustained over the long term. In a 15-year follow-up of individuals who went through the Chicago Child-Parent Center programme as children, compared to the control group, participants had lower levels of juvenile arrest (17% for participants versus 25% for controls), multiple arrests (10% for participants versus 13% for controls) and arrests for violent offences (9% for participants versus 15% for controls) (*52*). By age 24 years, relative to a comparison group, these participants also had lower rates of arrest for felonies, serious crimes punishable by imprisonment for more than one year (17% for participants versus 21% for controls) and lower rates of incarceration (21% for participants versus 26% for controls). However, there were no differences for levels of violent arrest (*53*).

In Seattle in the United States a follow-up of a non-randomized controlled trial of a parent and child intervention was conducted when the child participants were 18-years-old. The programme

combined teacher training in classroom instruction and management, parent training in child behaviour management and social competence training for children from grades one to six (ages 6–12 years). At 18 years, there were fewer violent delinquent acts reported for those who participated in the intervention than for those in the control group (48.3% for participants versus 59.7% for controls) (*54*).

4. Social support

Social support groups can run independently, but they are often part of a wider family programme within, for example, multi-component programmes. Professionals may contribute or the groups may be open to peers only; however, all social support programmes are driven by the needs of group members, rather than directed by professionals (*24*).

4.1 Prevention of child maltreatment and aggressive behaviour in children

Neglectful or abusive parents are more likely to be socially isolated (*55*,*56*), but there is little evidence to suggest that involvement in social support groups can prevent child maltreatment (*15*,*26*) or aggressive behaviour in children. However, such groups have been successful in improving factors that may be related to violent behaviour, including family wellness (*19*). Furthermore, there is some evidence to suggest that social groups can improve maternal mental health. For instance, in a qualitative study of Canadian parents taking part in Parent Mutual Aid Organizations (informal parent-run networks for parents involved with child welfare agencies), 75% cited feeling supported and being less lonely as the best thing about participating (*57*). Over a one-year period, compared to controls, average measures of parental self-esteem increased and perceived stress decreased for participants. In addition, the percentage of parents needing to see a professional about family and home responsibilities decreased more among participants than among members of the control group (by 32.3% among participants versus 15.6% among controls). The same was true for the percentage of parents in contact with a child protection worker: this decreased by 61% among participants and by 23% among those in the control group.

5. Media interventions

Although often costly to implement, media interventions are accessible to a large proportion of the population and may allow parents to recognize and address early warning signs of behavioural problems in children before they develop (*16*). While such interventions can be components of other programmes (e.g. parenting programmes such as Triple P; see **Table 1**), they can also be implemented on their own.

5.1 Prevention of child maltreatment

Little research has been done on the outcomes of stand-alone media interventions to encourage safe, secure and nurturing relationships, and thus prevent violent behaviour. Such programmes have been found, however, to have a small positive effect on family wellness in general (*19*). Additionally, there is some evidence that they can improve parenting skills, maternal self-esteem and other factors that may be related to child maltreatment. For instance, a survey of parents of 6–18-month-old children in the United States found that, one year after they began participating in a multimedia Play Nicely programme (**Table 1**), 65% thought the programme had helped them manage aggressive behaviour in their child (*58*). In Australia, meanwhile, the effectiveness of a 12-episode television series, "Families" (part of a Triple P parenting programme; **Table 1**), was evaluated using a randomized controlled study, which assessed participants before and after watching the series. The series offered guidelines for parenting strategies that deal with common behavioural problems. Compared with members of the control group (who did not see the TV series), participants reported feeling greater efficacy as parents after viewing the series (*16*).

5.2 Reducing aggressive behaviour in children

The evidence is limited, but media interventions appear to have had some success in improving child behavioural problems. For instance, in the Australian intervention "Families", 43% of children in the intervention were in the clinically elevated range for disruptive child behavioural problems before the programme started. Immediately after the series, this fell to 14% and, six months later, to 10% (*16*).

6. Costs and benefits of prevention programmes

Well-implemented interventions can actually reduce the costs of health care, criminal justice, education and other public services. A review of the costs and benefits of early intervention programmes concluded that some home-visiting programmes targeting high-risk/low-income mothers returned between $2 and $3 for each dollar spent (*59*). In a further review of nine early childhood programmes, seven were found to be cost-effective, yielding between $2 and $17 in benefits for every dollar invested (*60*). Despite this, both reviews concluded that not all childhood interventions were cost-effective, with some being ineffective and very expensive.

7. Summary

There is evidence that interventions that encourage safe, stable and nurturing relationships between children and parents early in life can prevent child maltreatment and childhood aggression. For the prevention of child maltreatment, parenting programmes are the most common and most evaluated and the Nurse Family Partnership and Triple P are supported by the strongest evidence. Some parent and child programmes have also generated encouraging results. There is a need for more evidence concerning the effectiveness of social support and media programmes for reducing child maltreatment, despite these interventions improving factors that may be related to child maltreatment, such as parental self-esteem, confidence and isolation.

In many evaluation studies, risk factors for child maltreatment (e.g. changes in parental attitudes towards discipline) are used to assess programmes rather than direct measures (e.g. reports of child maltreatment). Furthermore, because many programmes are designed to encourage healthy relationships and increase parental skills, rather than prevent or address violent behaviour, violence is seldom measured as an outcome. Encouraging programmes to incorporate child maltreatment as an outcome measure and to include direct as well as indirect measures of child maltreatment would further our understanding of the effectiveness of different primary prevention approaches.

For the prevention of aggression in children, some evidence suggests that parenting programmes and parent and child interventions reduce aggressive, disruptive and defiant behaviour in the short term, and arrests, convictions and violent acts in the long term (in adolescence and early adulthood). Additionally, there is some evidence that media interventions can address disruptive child behaviour in the short term, although in other respects the evidence for media interventions is lacking. There is no evidence, however, that social support programmes reduce aggressive childhood behaviour. Moreover, it is unclear whether the improvements in childhood behaviour that various interventions strive for can be linked to reduced use of violence later in life.

Given the shortage of randomized controlled trials that use actual maltreatment as an outcome measure, there is a need for more rigorously evaluated programmes before their effectiveness in preventing violence can be accurately determined. Furthermore, only a small proportion of evaluations include an analysis of the economic benefits of programme implementation. Programmes should be encouraged to conduct evaluations that measure not only effects on violent behaviour, but also their economic costs and benefits.

Although early childhood programmes have generated some positive results, the majority of evaluations have focused on programmes in Canada, the United States and other developed countries. Early childhood programmes have been implemented in developing countries – Bangladesh (61), Syria (62) and Zambia (63), for example – but their effect on levels of violent behaviour or its risk factors have rarely been evaluated. Owing to social and cultural differences one cannot necessarily apply the results of research in developed countries to other parts of the world. More research is urgently needed, therefore, on the applicability and effectiveness of early childhood violence prevention programmes in developing countries.

This briefing shows that there is some strong evidence demonstrating that programmes that promote safe, stable and nurturing relationships between parents (or caregivers) and children reduce child maltreatment and its life-long negative consequences for mental and physical health, social and occupational functioning, human capital and security and, ultimately, for economic development.

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violence prevention
the evidence

2.

Preventing violence by developing life skills in children and adolescents

Overview

Violence among children and youth is a public health problem, worldwide.

Every day, worldwide, an estimated 227 children and youths (age 0–19 years) die as a result of interpersonal violence, and for each death many more are hospitalized with injuries. Poor social skills, low academic achievement, impulsiveness, truancy and poverty are among the factors that fuel this violence.

This violence can be prevented by developing the life skills of young children.

Life skills are cognitive, emotional, interpersonal and social skills that enable individuals to deal effectively with the challenges of everyday life. Evidence shows that preschool enrichment and social development programmes, which target children early in life, can prevent aggression, improve social skills, boost educational achievement and improve job prospects. These effects are most pronounced in children from poor families and neighbourhoods. The benefits of high-quality programmes of this type can also be sustained into adulthood.

Programmes for older children and youth also improve behaviour.

The effects of academic enrichment programmes, incentives to complete schooling and vocational training programmes on violence prevention demand further research, though studies have found positive effects on behavioural outcomes. These may be short-lived, however, and some programmes for adolescents have even shown detrimental effects.

Further research is needed to improve our knowledge of life-skills programmes, particularly in developing countries.

Most research on life skills programmes has been conducted in high-income countries, particularly the United States of America. More evidence is needed on the impacts of preschool enrichment and social development programmes in low- and middle-income countries. Although evidence for the violence prevention effects of other types of programmes is limited, vocational training has been to shown to improve employment prospects – most significantly in low- and middle-income countries.

1. Introduction

BOX 1

Life skills

Life skills can be defined as "abilities for adaptive and positive behaviour that enable individuals to deal effectively with the demands and challenges of everyday life" (*6*). These include cognitive, emotional, interpersonal and social skills to foster:

- **SELF-AWARENESS:** self-esteem and confidence building, self-monitoring, self-evaluation, goal setting, etc;
- **SELF-MANAGEMENT:** anger and stress management, time management, coping skills, controlling impulses, relaxation, etc;
- **SOCIAL AWARENESS:** empathy, active listening, recognizing and appreciating individual and group differences, etc;
- **RELATIONSHIPS:** negotiation, conflict management, resisting peer pressure, networking, motivation, etc; and
- **RESPONSIBLE DECISION-MAKING:** Information gathering, critical thinking, and evaluating consequences of actions.

Every day, worldwide, an estimated 227 children and youths (age 0–19 years) die as a result of interpersonal violence (*1*), and for each death many more are hospitalized with injuries from this violence (*2*). Factors such as poor social competence, low academic achievement, impulsiveness, truancy and poverty increase individuals' risk of violence (*2*,*3*). Thus, developing children's life skills (see **Box 1**), improving their participation and performance in school and increasing their prospects for employment can help protect them from violence, both in childhood and later in life. Interventions for developing life skills can help young people to avoid violence, by improving their social and emotional competencies, teaching them how to deal effectively and non-violently with conflict and helping them to find employment. This briefing outlines evidence of the impact[1] of violence prevention measures that aim to develop life skills in children and adolescents. It focuses on five types of programmes:

- **Preschool enrichment programmes**, which aim to increase children's school preparedness and chances of academic success by providing them with early academic and social skills;
- **Social development programmes**, which seek to provide children with social and emotional skills to solve problems, empathize and deal with conflict;
- **Academic enrichment programmes**, which aim to improve academic achievement with study support and other activities outside normal school hours;

[1] Wherever possible, evidence is drawn from studies that measure the impact of interventions on violent behaviour. However, many studies do not measure violence per se, but rather criminal justice outcomes such as arrests. Where evidence is not available on either of these outcomes, other behavioural outcomes have been used to show impacts on risk and protective factors for violence.

- **Incentives for youths to complete education**, including financial incentives for young people to attend and complete school and pursue higher education; and
- **Vocational training for underprivileged youths** to increase their chances of finding employment and divert them from crime.

In practice, these types of programmes often overlap. For example, preschool enrichment and social development programmes are frequently combined in interventions for young children (*7*), while interventions targeting adolescents can include both academic enrichment and incentives for completing education (*8*).

Of the five programme types, the evidence for preschool enrichment and social development programmes is by far the most robust, with high-quality studies associating these early interventions with reduced aggressive behaviour and violent crime in childhood and later in life. Evidence for the effectiveness of academic enrichment, incentive and vocational training programmes, however, is currently limited; few rigorous studies have measured the impact of these intervention types on violence, and existing studies show mixed results. For all programme types, the vast majority of studies have been done in high-income countries, with the evidence base dominated by studies in the United States. Despite this, life skills interventions are used throughout the world to improve young people's life chances through increasing educational participation (e.g. preschool programmes [*9*]) and employability (e.g. vocational training [*10*]). While international evidence of the impacts of life skills programmes is developing, robust studies evaluating their transferability to, and violence prevention effects in, different settings are much needed, particularly in low- and middle-income countries.

2. Preschool enrichment programmes

BOX 2

Two long-term evaluations of preschool enrichment programmes

High/Scope Perry Preschool Enrichment study

This randomized controlled study, from 1962–1967, targeted African-American children, aged 3–4 years, living in deprived areas of Michigan in the United States and followed participants into adulthood. The study group had 58 preschool participants; the control group had 65. Those in the study group had daily, morning classroom sessions with weekly home visits. The curriculum applied social learning theory to children's play, with teachers promoting skills including decision-making, language development, problem-solving, empathizing and dealing with conflict. By age 40 years, participants showed significantly lower lifetime levels of arrest for violent crime than those in the control group (32% versus 48%). Other benefits associated with the programme included higher achievement in school and increased earnings (*11*).

Chicago Child-Parent Center (CPC) study

The CPC programme targets children aged 3–9 years in deprived areas, providing preschool enrichment followed by ongoing educational and family-support when children enter formal education. The preschool programme includes daily, three-hour classroom sessions, including skills development in language, arts, reading and mathematics. An intensive programme also engages parents in school activities and provides educational and health services. The Chicago Longitudinal Study has followed a cohort of children who were enrolled in CPC between 1985 and 1986, and a control group – in all, 1539 individuals. By 18 years, those who had participated in the preschool programme showed significantly lower levels of arrest for violent offences than did members of the control group (7% versus 14%) (*13*). By 24 years, those who had remained in the programme for longer periods were less likely to have been involved in violent crime (*19*). Participation in the preschool programme was also associated with lower levels of child maltreatment (*14*).

Preschool enrichment programmes attempt to prepare children for school by providing them with academic and social skills at an early age, thus increasing their chances of educational and social success (*2*). The content of such programmes is diverse and can range from language development to raising self-esteem, problem-solving, empathy and the development of literacy and numeracy skills (*11*). While preschool enrichment programmes can be delivered to all children within a school catchment area (universally) (*12*), they are often targeted at children in low-income neighbourhoods who are considered at-risk of low academic achievement. There is strong evidence from studies in the United States (**Box 2**) that high quality programmes targeting deprived populations can have long-term positive impacts on participants such as reducing involvement in violence and improving educational and employment outcomes (*7*,*11*,*13–15*). Combined with parenting programmes, these have also shown positive impacts in protecting children from child abuse (*14*).

The evidence base for universal preschool programmes is less robust; however, findings suggest

that universal preschool enrichment can reduce aggressive behaviour and increase educational attainment in the short term (*7*,*16*). One example is Al's Pals, a universal prevention programme that supports the development of social and emotional skills in children (aged 3–8 years) in preschool and elementary school. Parental education is also a part of the programme. Evaluation of Al's Pals, as implemented in Virginia in the United States, suggests that it prevents the development of aggressive and antisocial behaviour and improves coping skills and social and emotional competencies in children in participating classrooms (compared to children in control-group classrooms (*17*)). In Argentina, approximately 175 000 additional preschool places were created between 1993 and 1999 to increase school attendance in children aged 3–5 years. This expansion of universal preschool education was assessed in a cohort study and was associated with increased educational attainment and positive effects on behavioural measures, including attention, effort and discipline (*18*).

Preschool enrichment forms an important part of broader child and parent programmes implemented throughout both the United Kingdom (Sure Start) and the United States (Head Start/Early Head Start). In the United States, Head Start programmes target children and parents from low-income families, providing preschool enrichment for children together with health screening and referral, nutritional advice, parental activities and other support services. A randomized controlled trial of the Early Head Start programme (for children aged 0–3 years) found that, compared to children in the control group, participating children were rated by their parents as having lower levels of aggressive behaviour at age three years (*20*). In England, the Sure Start programme provides similar services to all children living within areas served by a Sure Start Children's Centre, with the aim of providing all children in the country with access to Sure Start services by 2010. An evaluation of Sure Start programmes compared 5883 three-year-old children and their families from 93 disadvantaged Sure Start areas with 1879 children and families from 72 similarly deprived areas participating in the Millennium Cohort Study. The study found better social development and more positive social behaviour in children from Sure Start areas (*21*); however, effects on aggressive behaviour have not yet been measured.

A range of cost-benefit analyses of preschool interventions have suggested that high quality, well-implemented programmes targeting at-risk children can yield important economic returns (*7*,*22*,*23*). For example, a meta-analysis of studies on early childhood education for three- and four-year-olds from families with low incomes conservatively estimated an average benefit of $2.36 for every dollar invested, based on impacts such as reduced crime, child abuse and neglect and expected changes to lifetime earnings (*22*). Longer-term follow-up of effective preschool programmes strengthens the evidence of their cost-effectiveness. For example, follow-up studies indicate that the benefits of the Perry Preschool programme (**Box 2**) were about $8.74 per dollar invested by the time that participants were 27-years-old. By the time they were 40 years, however, the programme's return on investment was an estimated $17.07 per dollar invested, as criminal justice savings and earnings benefits were greater than expected (*11*,*23*,*24*).

3. Social development programmes

BOX 3

Promoting Alternative Thinking Strategies

PATHS is a social development programme that targets children from kindergarten to grade 6 (ages 4–12 years). Initially developed in the 1980s for deaf children in the United States, PATHS has been adapted in Australia, the United Kingdom and other countries as both a universal and targeted programme (for children at high-risk of antisocial behaviour). The core curriculum contains six volumes of lessons delivered over five years with three main units: readiness and self-control; feelings and relationships; and interpersonal, cognitive problem-solving (38). The curriculum is supported by teacher-training, teaching materials and resources for parents. A randomized controlled trial of the Fast Track programme in school children (grade 1, aged 6–7 years) in the United States examined the use of the PATHS curriculum delivered both universally and as part of a package of measures targeted at high-risk children. The trial followed 7560 children, of whom 10% were identified as being at high risk of long-term antisocial behaviour. A slightly modified version of the PATHS curriculum (80% of lessons were drawn from the published curriculum) was delivered to all children in classrooms receiving the intervention, with an equal number of classrooms acting as the control group. In addition, the high risk children received measures including academic tutoring, parent training and home visiting. Evaluations of the universal programme (excluding high-risk children) found lower levels of peer-rated aggression and hyperactive-disruptive behaviour and a more positive atmosphere in participating classrooms (*39*). The broader package of measures delivered to high-risk children resulted in fewer aggressive behaviour problems and improved social and emotional skills among those who received the intervention (*40*). A follow-up study of the high-risk group, three years later, found enduring effects among both children and parents (*41*). The broader Fast Track intervention, including PATHS and targeting high-risk children, has also been shown to be cost-effective (*42*). High-quality programme implementation and strong support from school principals are thought to be critical to its success (*43*).

Social development programmes promote pro-social behaviour and aim to prevent aggression in children by fostering social skills such as anger management, moral development, empathy, developing and maintaining healthy relationships, problem-solving and conflict resolution. Often delivered in school settings, social development programmes can be universal or target at-risk groups. Classroom lessons are typically combined with broader measures to increase social participation (e.g. involvement in school activities), enhance recognition for positive social behaviour and strengthen bonds between children and positive role models. Thus social development programmes often seek to change the whole classroom or school environment, making them places of greater opportunity, bonding and reward for children. Social development training can also form an important part of family-focused interventions. The evidence for the effectiveness of social development programmes is solid, with studies showing that well-implemented programmes improve social skills and reduce aggression in young people (*25–37*). **Box 3** highlights the positive effects on violence prevention of a

social development programme known as Promoting Alternative Thinking Strategies (PATHS).

Other examples of school-based social development programmes include Second Step, which uses a classroom-based curriculum to develop skills including empathy, problem-solving, anger management and impulse control. Universal implementation of Second Step has been evaluated in a number of countries using various evaluation techniques and the programme has been associated with reductions in problem behaviour and improvements in social competence in children, at least in the short term. See for example references to results of a United States randomized controlled trial (*44*), a Norwegian cohort study (*45*) and a German randomized controlled trial (*46*). However, most of the positive effects reported from the programme are of moderate magnitude and research has yet to provide solid evidence of the effectiveness of these programmes over the long term. Short-term benefits have also been reported from a programme in Lithuania known as Zippy's Friends. The 24-week programme aims to develop coping skills among school children (aged six years, on average). A cohort study found that Zippy's Friends is associated with decreased disruptive and hyperactive behaviour (*47*).

When combined with teacher training and parental education, social development programmes may also provide longer term benefits. For example, a cohort study found participation during elementary school in the multi-component Seattle Social Development Project was associated with a reduction in student reports of violent delinquency six years after the intervention (48% compared with 60% in the control group) (*25*). Project participants also reported lower levels of heavy drinking and improved sexual health markers (e.g. multiple sexual partners and teenage pregnancy) at age 18 years. Cost-benefit analyses suggest that the project generated $3.14 in benefits for every dollar invested (*26*) and, by the time participants reached 21 years, the programme was associated with better functioning in school and the workplace and better emotional and mental health. Studies of the Seattle project, however, do not show significant reductions in crime and substance use among participants, compared to the control group (*48*). Other social development programmes have also shown short-term positive effects on both violence and health-damaging behaviour. For example, a randomized controlled trial of the Life Skills Training programme, which has previously shown benefits in preventing substance use, found reduced verbal and physical aggression in participants at three-month follow-up (*26*).

Social development training can form an important part of family-based violence prevention. For example, in the United States the Iowa Strengthening Families Program provides social development training for children (in problem-solving, stress and emotions management and refusal skills) with concurrent sessions for parents to develop skills (in disciplinary practices, effective communication with their children and managing strong emotions). These training programmes are followed by joint child-parent sessions to practice learnt skills, facilitate family-conflict resolution and increase family cohesion. A randomized controlled trial of the programme among students in grade 6 (aged 11–12 years) found lower levels of aggressive and hostile behaviour among the child participants four years after the intervention, as measured by both child self-reports and observer reports of aggression and hostility in child-parent interactions (*49*). Successful family-focused interventions, such as parenting education, can strengthen the ability of parents and caregivers to develop effective social and emotional skills in their children. (For details about preventing violence through programmes that foster safe, stable and nurturing relationships between children and their parents and caregivers, see the briefing in this series on this topic.)

4. Academic enrichment programmes

Academic enrichment programmes aim to improve children's academic achievement and school involvement by supporting their studies and offering recreational activities outside normal school hours. Low academic achievement and truancy are risk factors for violence; so, programmes that improve children's academic performance and school attendance may have the potential to reduce involvement in violence. Academic enrichment programmes cover a wide range of subjects and skills, including basic numeracy and literacy, curriculum and exam revision, foreign languages, sports, crafts and adventure activities. When targeted at children in socially deprived areas, these programmes have been found to increase numeracy, literacy and school attendance, and improve exam outcomes and attitudes towards school (*50*).

Academic enrichment programmes are widely used in the United States and some evaluations of them have measured behavioural or criminal justice outcomes. However, findings have been mixed, and often shown no, or even negative, effects. For example, the LA's BEST programme targets at-risk youths living in deprived areas of Los Angeles, offering free after-school enrichment and recreational activities. Evaluation of the programme suggested it had no effects on violent crime or overall crime (*51*). Across the United States, 21st Century Community Learning Centers (CCLCs) received government grants to provide academic enrichment out of school hours, targeting students from deprived communities in particular. Evaluation of the CCLC programme in five areas found no benefits in academic achievement and some negative impacts on behaviour: for example, intervention participants were more likely to engage in negative behaviour resulting in teacher discipline or suspension from school (*52*).

More positive findings have been reported for the multi-component CASASTART programme, which is a community-based, school-centred programme targeting high-risk children, aged 8–13 years. Each programme case manager provides intensive support to up to 15 vulnerable children and their families, in partnership with schools, criminal justice agencies and community-based health and social services. The programme provides after-school and summer recreational activities together with social support, family services, educational services, mentoring, incentives, community policing and criminal/juvenile justice interventions and other support. Evaluation of the programme at five sites reports benefits, including lower engagement in violent crime, lower drug use and less association with delinquent peers (*53*,*54*).

Similar multi-component programmes are being run in Australia (*55*), the United Kingdom (*56*) and the United States (*57*), among other countries, in what are known as Extended or Full-Service Schools. These programmes provide a range of services and activities for youths, families and communities at schools, outside normal school hours. Their aim is to promote positive academic and social development among youth. Although evaluations have not examined their effects on violent behaviour, these programmes have reported success in promoting pro-social behaviour, academic achievement and, in the United States, reducing rates of under-age initiation into drinking alcohol (*57*). In the United Kingdom, Full-Service Extended Schools (FSES) are being introduced nationally, providing services such as study support, community activities, adult learning, health services and child care. Evaluation of the national roll-out of FSES over three years suffered from a lack of baseline data, yet reported positive impacts on educational attainment

(particularly for pupils facing learning difficulties). Qualitative data also suggested that school-based support had reduced conduct problems and aggression among individual at-risk pupils. Other estimates, meanwhile, suggest that, while the costs of implementing the programme are high, the savings usually exceed the costs, especially among vulnerable individuals (*56*).

Further research is needed on the effectiveness of academic enrichment programmes in preventing violence. Findings to date, however, suggest that, while the targeting of schools serving children from deprived areas can help to reach those vulnerable to violence, special effort is needed to recruit those most at risk. Successful programmes tend to have strong leadership and commitment within schools, a broad range of different age-appropriate activities and well-trained staff (*56–59*). Academic enrichment programmes may also produce their best results when they adopt a strategic approach tailored to the local context. This calls for strong links to other agencies and organizations in the community addressing similar issues, and solid partnerships between families, schools and communities. While school, family and community partnerships may not directly deliver life skills, they can help create an environment that is conducive to their delivery through other methods. Studies show that such partnerships have been associated with higher achievement in school and reduced behavioural problems in young people (*60*,*61*). For example, the Communities that Care (CtC) programme in the United States empowers communities to address youth behavioural problems by identifying and acting upon locally-relevant risk and protective factors. A randomized controlled trial of CtC found lower initiation to violence, theft and vandalism among children from participating communities compared with those in a control group (*62*). The CtC programme has also been implemented in several other countries, including Australia, the Netherlands and the United Kingdom.

5. Incentives for youths to complete education

Providing young people with incentives to attend and complete school can increase school participation and educational attainment, and thus promote factors that can protect young people from involvement in violence. Incentive programmes are typically used in secondary schools and involve financial support to encourage youths to graduate and pursue higher education. They are usually targeted at youths from low-income families who are at risk of low academic achievement. While such programmes have shown success in improving educational outcomes and reducing antisocial behaviour, evaluations to date have not measured violence as an outcome. Evaluations of the Quantum Opportunities Program in the United States, however, have looked at impacts on criminal behaviour, though the results are mixed (*8*,*63*). The programme combines financial incentives with a range of other activities, including academic enrichment (see **Box 4**). In the United Kingdom, an incentive scheme to encourage

BOX 4

Effect of combined incentives and academic enrichment in the United States

The Quantum Opportunities Program (QOP) targeted disadvantaged youths, beginning in 1989 with students in grade 9 (age 14–15 years), offering financial and other support throughout high school. At first, 25 at-risk youths in each of five communities were selected to participate in the scheme, which involved tutoring, training in life skills and community service activities. Participants were also provided with financial incentives for taking part in programme (starting at $1 per hour, with a $100 bonus for every 100 hours), and each participant was allocated an adult mentor for the duration of the programme. A randomized controlled trial found that, compared to students in a control group, more QOP students graduated, proceeded to higher education and took part in community projects and fewer dropped out of school. These students were also less likely to become teenage parents (24% QOP students versus 38% in the control group) and less likely to have been in trouble with the police in the last 12 months (6% of QOP students versus 13% in the control group). Cost-benefit analyses suggested the programme would save between US$ 3 and US$ 4 for every dollar invested (*63*).

From 1995 and 2001, a randomized controlled trial of a QOP demonstration project was conducted at seven sites in the United States. Here, little success was seen six years after participants were due to have graduated from high school. Participants were no more likely to have graduated, pursued a post-secondary education or vocational training. Nor were they more likely to have earned higher grades, improved their employment outcomes or exhibited lower levels of risky behaviour. Rather, QOP showed detrimental effects on both committing crime (3% increase) and being arrested or charged (6% increase). Researchers attributed this lack of success to a failure to fully implement all aspects of QOP, low participation rates among students and the scope of QOP, which did not aim to influence wider school operation. Unlike the initial implementation of QOP, which targeted students based on low income, the demonstration targeted those with low academic achievement and thus participants had greater academic needs. The evaluation suggested there was a need to start the intervention at an earlier age and to ensure that services are tailored to the needs of participants (*8*).

youths to continue on to higher education has been implemented nationally since 2004. The Education Maintenance Allowance scheme provides up to £30 per week to young people from families with incomes below a certain amount (around £30 000, in England) to participate in higher education. Studies indicate that the scheme has boosted participation in higher education and, for males, improved educational attainment. Based on survey findings, the scheme was estimated to have retained 18 500 young people in education in 2004–2005 (*64*). The scheme has not, however, significantly improved retention in education among members of most minority ethnic groups.

Incentives such as food are also used in developing countries to promote participation in preschool and primary education. Although their impacts on violence have not been measured, programmes offering incentives have been found to increase educational attendance, retention and performance, with benefits particularly among poor children (*65*). In Kenya preschool participation was found to be 30% higher among children attending schools providing them with breakfast (*66*). The feeding programmes were also associated with higher curriculum test scores, although only in schools with more experienced teachers.

6. Vocational training for underprivileged youths

Vocational training aims to provide disadvantaged young people with skills to find jobs, earn more income and avoid involvement in crime. Programmes typically include one or more of the following elements: classroom-based learning, paid work experience and on-the-job training (*67*). Developed and developing countries alike have implemented vocational training programmes and studies have shown that they can have positive effects on participants' employment prospects, particularly in developing countries. A global meta-analysis found that such training in low- and middle-income countries was 50% more likely to result in youths finding employment than vocational training in developed countries (*68*). The impact of vocational training on violence, however, has not been widely studied and, while a number of studies in the United States have measured its effects on criminal behaviour, the findings have been mixed.

In the United States, a review of nine studies of vocational training programmes specifically aimed at preventing youth crime and delinquency found that just two showed short-term positive impacts. Six had no effects and one led to increased criminal behaviour (*69*,*70*). This large-scale study measured the impacts of programmes funded through the United States Job Training Partnership Act (JTPA), which involved a range of vocational training programmes targeting out-of-school 16–21-year-olds. A randomized controlled trial following participants three years after enrolment in JTPA programmes found that males who had not been arrested prior to programme participation were significantly more likely to have been arrested after enrolment than were male members of the control group (26% compared with 19%) (*69–71*). **Box 5** outlines the findings of evaluations of the JOBSTART project in the United States, which has also measured impacts on criminal behaviour.

BOX 5

JOBSTART in the United States

The JOBSTART demonstration project targeted economically disadvantaged school dropouts, aged 17–21 years, between 1985 and 1988, with the aim of improving their employment and earning prospects. Participants were provided with vocational and educational training, job placement assistance and support services, such as child care and counselling. The demonstration involved 13 sites across the United States, with participants and controls recruited and followed for four years. Violent behaviour was not measured, yet initial follow-up after one year found small reductions in criminal behaviour (arrests). These effects were not sustained after four years, however, when 29% of both JOBSTART participants and members of the control group reported having been arrested during their lifetime. Nevertheless, the study did show reductions in drug use over the four years, particularly for males who had been arrested prior to enrolment in the programme. Here, 3.7% reported use of drugs other than marijuana at some time during their lives, compared with 10.5% of the controls. Participants also had higher earnings, though no improvement in academic achievement (*72*).

7. Summary

Interventions that support children in the development of life skills can have positive impacts on young people's opportunities through improving pro-social abilities, educational attainment and employment prospects and can help prevent violence. Of the five types of interventions discussed, the evidence is strongest for those that target children early, through preschool enrichment and social development training – both in terms of reported outcomes and, critically, of the number and quality of studies measuring impacts on violence. Cost-effectiveness studies also indicate that the rate of return on investment in such interventions aimed at disadvantaged children is higher the earlier in life that the intervention occurs (*73*). Thus there is a well-developed evidence base for the effectiveness of preschool enrichment programmes and social development programmes in preventing aggression and improving social skills, particularly in deprived children. Furthermore, high-quality programmes have shown that these effects can be sustained well into adulthood. Such programmes can also show positive impacts on a range of other health-risk behaviour, such as substance use and unsafe sexual behaviour.

Our understanding of the impacts of academic enrichment, incentives to complete schooling and vocational training programmes on violence prevention is less developed and there is a need for rigorous evaluations in this area. Studies that have found positive effects on behavioural outcomes often suggest these are short-lived, while some programmes for adolescents have even shown detrimental effects. While the mechanisms behind such negative effects are unclear, bringing at-risk youths together may have a normalizing effect on their deviant behaviour (*74*). However, skills taught to adolescents through academic enrichment, incentive and vocational training programmes are often significantly different from those taught in interventions offered to young children. While preschool enrichment and school-based social development programmes typically seek to promote social and emotional skills, programmes targeting adolescents largely focus on academic and vocational skills development. This, combined with differences in the mode of evaluation (e.g. methodologies, quantity and quality of studies conducted and outcomes measured), complicates the comparison of different types of interventions.

Most studies on the impact of life skills programmes – of all types – on violence prevention have been conducted in developed countries, particularly in the United States. Improving knowledge of how well life skills programmes proven to be effective in high-income settings translate to low- and middle-income settings must be a key research priority. Given their proven benefits and cost-effectiveness in high-income countries, there is, however, every reason to believe that these programmes can be effective in low- and middle-income countries. Although the evidence-base for the violence prevention effects of other types of programmes is limited, vocational training programmes have been shown to improve employment prospects most significantly in low- and middle-income countries. Together, the evidence reviewed in this briefing underlines the importance of targeting violence prevention efforts as early in life as possible to achieve maximum benefits and protect children from risk factors that increase their propensity for violence.

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violence prevention
the evidence

3.

Preventing violence by reducing the availability and harmful use of alcohol

Overview

Reducing the availability and harmful use of alcohol can substantially decrease violence.

Harmful use of alcohol is a major contributor to violence. Studies have shown that violence can be cut by reducing the availability of alcohol through regulating sales outlets and hours and prices; by providing brief interventions and longer-term treatment for problem drinkers; and by improving the management of environments in which alcohol is served. Although the evidence base is promising, studies are largely limited to developed countries.

Regulating the availability of alcohol can lead to reductions in violence.

The availability of alcohol can be regulated either through restricting the hours or days it can be sold or by reducing the number of alcohol retail outlets. Generally, reduced sales hours have been found to be associated with reduced violence and higher outlet densities with higher levels of violence. In the former Soviet Union in the mid-1980s, strict alcohol regulation, which included among other measures restricted hours and fewer outlets, led to a dramatic fall in violence.

Raising alcohol prices can lower consumption and, hence, reduce violence.

Alcohol prices can be raised by, for instance, increased taxes, state controlled monopolies and minimum price policies. Studies exploring the impact on violence of increases in alcohol prices are rare, but economic modelling strongly suggests that alcohol price hikes can be effective. However, such measures are potentially complicated by conflicts of interest with the alcohol industry and the presence, especially in developing countries, of large informal alcohol markets beyond state control.

Brief interventions and longer-term treatment for problem drinkers reduce violence.

Brief interventions and longer-term treatment can help reduce forms of violence such as child maltreatment, intimate partner violence and suicide. For instance, cognitive-behavioural therapy, programmes aimed at the partners of drinkers, and behavioural marital therapy for newly abstinent male alcoholics and their partners have been shown to curb violence.

Community interventions to improve drinking environments can reduce violence.

Factors such as crowding, low comfort levels, physical design and poorly trained staff in drinking establishments and poor access to late night transport can contribute to violence. Several community interventions targeting such factors have been found to be effective. For example, the Stockholm Prevents Alcohol and Drug Problems partnership implemented measures such as responsible training for bar staff, training of door supervisors in conflict management and increased enforcement of licensing legislation; evaluation showed that it reduced violent crimes by 29%.

1. Introduction

Harmful use of alcohol is a major contributor to violence. The links between alcohol and violence are complex (**see Box 1**), yet studies across the world show that alcohol use commonly precedes aggressive behaviour, and that harmful drinking is associated with being both a perpetrator and a victim of violence. Thus, individuals who start drinking at an early age, drink more frequently, in greater quantities, and to intoxication have higher risks of violence (*1–4*). Similarly, environments where there is a culture of heavy drinking and greater alcohol availability experience higher levels of violence (*5–7*). Globally, 30% of mortality caused by violence is attributable to alcohol, ranging from 8% in the Middle East and North Africa to 56% in Europe and Central Asia (*8*). Studies in several countries suggest alcohol has been consumed by between a third and a half of perpetrators of violence prior to assaults taking place (e.g. the United States of America, 35% [*9*]; South Africa, 44% [*10*]; England and Wales, 45% [*11*]; China, 50% [*12*]). Studies typically show that males are more likely to drink alcohol, and to be both perpetrators and victims of alcohol-related violence (*13*). Importantly, the role of alcohol in aggression extends across many different forms of violence, including youth violence, sexual violence, intimate partner violence, child maltreatment and elder abuse (*13–17*). Further, 11% of global suicide mortality is attributed to alcohol, ranging from 2% in the Middle East and North Africa to 31% in Europe and Central Asia (*8*).

Given the strong links between alcohol and violence, measures to reduce the availability and harmful use of alcohol are important violence prevention strategies. This review summarizes the evidence for

BOX 1

Examples of links between alcohol and violence

- Alcohol has a direct effect on physical and cognitive functioning, contributing to violence through, for example, reducing self-control and the ability to recognize warning signs.
- Individual and cultural beliefs that alcohol causes aggression can lead to alcohol being used to prepare for or excuse violent acts.
- Dependence on alcohol can mean individuals fail to fulfil care duties, for example towards children or elders.
- Problematic use of alcohol can develop as a coping mechanism among victims of violence.
- Prenatal alcohol exposure can affect fetal development and consequently is linked to behavioural problems in later life including delinquent behaviour and violence.
- Alcohol and violence may be linked through common risk factors, for instance an underlying anti-social personality disorder may lead to both heavy drinking and violent behaviour (*13,18*).

the impact of such interventions on violence and covers:

- **Regulating alcohol availability**
  Measures to control sales of alcohol, for example, through restrictions on alcohol sales times and locations;
- **Increasing alcohol prices**
  Measures to reduce access to alcohol by raising prices, including through taxation and minimum alcohol price policies;
- **Reducing alcohol use in problem drinkers**
  Measures targeting individual drinkers through, for example, brief interventions for problem drinkers or treatment for alcohol dependence;
- **Community interventions to improve drinking environments**
  Typically, these incorporate a range of measures to mobilize community resources, encourage responsible retailing, improve the comfort and physical design of drinking establishments and better enforce alcohol legislation.

2. Regulating alcohol availability

Sales of alcoholic beverages take place through formal and informal markets. Formal markets are regulated by governments and subject to controls over, for example, where and when alcohol can be sold (*19*). The ability to control alcohol sales provides governments with a means of influencing the population's alcohol consumption and related harms. In some countries, governments manage alcohol sales, particularly off-license sales,[1] through retail monopolies (e.g. Costa Rica, Sweden and parts of Canada and the United States). Despite evidence suggesting that such monopolies can help limit alcohol consumption and related harm (e.g. road traffic injuries, alcohol-related diseases) (*20–22*), this practice is becoming increasingly rare. Rather, in many countries alcohol sales are managed through licensing systems that permit private bodies to sell alcohol under controlled conditions. While formal markets account for the majority of alcohol purchases in most developed countries, in many developing societies a large proportion of alcohol production and sales occurs in unregulated, informal markets (*19,23*). A 2002 study in Sao Paolo, Brazil, for example, found that just 35% of alcohol outlets surveyed had a license of some form, and that alcohol vendors, whether licensed or not, faced few apparent restrictions on trading (*24*).

This section discusses the effects of interventions to regulate alcohol availability on violence prevention, covering restrictions on alcohol service (hours and days of service and targeted sales bans) and the density of alcohol retail outlets. **Box 2** provides information on the impacts of strict alcohol regulation incorporating both types of measures in the former Union of Soviet Socialist Republics (USSR) under a state monopoly system. Although such strict regulation may not be feasible in most societies, this example nonetheless demonstrates how drastic reductions in alcohol availability can reduce violence.

2.1 Changing permitted alcohol sales times

Changes to permitted alcohol service hours have been implemented in several countries to address alcohol-related harm, including violence. There is a lack of clear evidence currently available on the impact of changes to permitted drinking hours on violence, with studies reporting contradictory results.

Studies assessing the impact of interventions to reduce alcohol service hours have been carried out in Brazil and Australia. In Brazil, implementation of a municipal law in the city of Diadema preventing sales of alcohol after 23:00 was associated with significant reductions in violence, as highlighted in **Box 3**. Similar beneficial results have been seen through restrictions on alcohol service hours in cities in Colombia (for example, the DESEPAZ programme in the city of Cali [*25*]). In Australia, restrictions on day-time sales of alcohol have been used in Aboriginal communities to reduce harm linked to alcohol. For example, in the town of Halls Creek all sales of packaged alcohol were banned prior to midday and specific regulations were applied to cask wine, which could only be sold between 16:00 and 18.00, with purchases limited to one case per person per day. A before and after study found that these measures were associated with decreased alcohol consumption over two years following implementation of the restrictions, and with lower levels of crime and emergency evacuations for injury. As-

[1] Off-licensed premises are those that sell alcohol for consumption elsewhere (e.g. supermarkets, liquor stores), whereas on-licensed premises are those that sell alcohol for consumption in the place of purchase (e.g. bars, restaurants).

BOX 2

Effects of strict alcohol regulation in the former USSR

A strict anti-alcohol campaign was implemented in the former USSR in 1985 to address growing levels of alcohol consumption and related harm. Facilitated by a state monopoly on legal alcohol production and sales, the campaign included:

- Reduced state alcohol production
- Reduced numbers of alcohol outlets
- Increased alcohol prices
- A ban preventing alcohol use in public places and at official functions
- Increased age of alcohol purchase (to age 21)
- Increased penalties for, and the enforcement of a ban on, the production and sale of home-made alcohol

The effects of the campaign were dramatic. In Moscow, state alcohol sales fell by 61% (1984–1987), alcohol consumption by 29%, total violent deaths by 33% and alcohol-related violent deaths by 51% (1984–1985/6). However, the campaign became increasingly unpopular, and by 1988 the consumption of illegal alcohol was increasing while government finances were suffering through reduced alcohol taxes. Late that year, alcohol production, outlets and trading hours were increased, effectively ending the campaign. By 1992, market reforms had been introduced that liberalized prices and trade, and violent deaths increased dramatically to exceed previous levels. Given the additional social and political changes in the Russian Federation over this period, the increase in violent deaths was unlikely to be due to alcohol alone. However, the temporal relationships between the changes in alcohol regulations and subsequent variation in violence suggest that they are at least closely related (*26–28*).

BOX 3

Preventing homicides by reducing alcohol sales times in Diadema, Brazil

Crime data in the city of Diadema, Brazil, indicated that 60% of murders and 45% of complaints regarding violence against women occurred between 23:00 and 06:00. Many murders took place in areas with high concentrations of drinking establishments, while violence against women was often linked to alcohol. In response, in 2002, a municipal law was implemented that prevented alcohol retailers from selling alcohol after 23:00. Adoption of the law was followed by a public information campaign informing residents about the law. Alcohol retailers received two visits by the municipal civil guard six months and three months prior to the implementation of the law, during which the law and its implications were discussed and retailers were asked to sign a declaration indicating their knowledge of the law and its legal consequences. Following implementation, the law was strictly enforced by a dedicated multi-agency unit supporting the municipal civil guard. Assessment of the impacts of the regulation, using an interrupted time series analysis, estimated that it reduced homicides by almost nine per month, representing a 44% reduction from expected levels without the regulation and preventing an estimated 319 homicides over three years. Assaults against women also decreased over the evaluation period. However, such assaults were already decreasing prior to the implementation of the law, so this could not be directly attributed to the intervention (*29*,*30*).

sociations with intimate partner violence were less clear, with hospital presentations for such violence fluctuating over the evaluation period (*31*). However, the study did not control for other changes that may have affected violence over the intervention period.

Studies exploring the impact of extended alcohol sales times on violence report mixed results. In Western Australia, legislation permitting drinking premises to extend their alcohol service hours from midnight to 01:00 was initiated in 1988. A cohort study examined police data between 1991 and 1997 to identify changes in assault rates in premises that had extended their licenses, compared with those in premises with unchanged hours. The study found a significant increase in assaults occurring in premises with extended alcohol service hours, which was linked to higher quantities of beverages with high-alcohol content purchased in these premises (*32*). In England and Wales, however, initial assessments of extended alcohol service hours permitted through the Licensing Act 2003 have found little evidence of increased violence. Implemented in November 2005, the Act changed the licensing system in England and Wales to end fixed alcohol service hours and allow individual retail outlets to agree their hours with local authorities. National studies comparing pre- and post-Act data from police and other sources (e.g. health services) have found no evidence that violence has increased (*33*,*34*).

Some countries place restrictions on the days of the week when alcohol can be sold. In 1981, for example, the Swedish government closed liquor stores on Saturdays to explore effects on alcohol use and crime. A descriptive before and after study of the trial found reductions over the study period in indoor and outdoor assaults and domestic and public disturbances (*35*). Saturday closure was maintained in Sweden until 2000, when Saturday opening was trialled and, in 2001, reinstated across the country. A controlled longitudinal study found that alcohol sales increased following Saturday opening of liquor stores, yet no significant changes in assaults were identified (*36*).

Research also suggests that bans on alcohol sales in areas associated with alcohol-related violence can contribute to preventing violence. For example, in the United States, a before and after study was used to assess the impacts of a ban on alcohol sales and consumption in a college stadium. This found that the ban was associated with significant reductions in assaults and arrests, ejections from the stadium and student referrals to the judicial affairs office (*37*). In several countries, national legislation has been used to control the sale and consumption of alcohol in sports stadia (e.g. Portugal, the United Kingdom) (*38*).

2.2 Density of alcohol retail outlets

A range of studies have explored associations between densities of alcohol outlets and violence. Despite methodological limitations, findings are generally consistent, associating higher outlets densities with higher levels of violence (*5*). For example:

- In Norway, increased density of alcohol outlets (number of public drinking premises per 10,000 inhabitants) between 1960 and 1995 was found to be associated with higher numbers of violent crimes investigated by police. An increase of one alcohol outlet corresponded to an increase of 0.9 assaults investigated each year (*39*).
- In Melbourne, Australia, spatial analysis found an association between concentration of public house licenses and assaults. Here, as concentrations of licenses increased numbers of assaults per license also increased, but with greater increases seen at higher concentrations of licenses. This suggests licensing authorities could identify a maximum density of licensed premises above which sharp increases in assaults would be likely to occur (*40*).

In Los Angeles, California, the United States, many alcohol outlets were damaged during the 1992 riots and then closed. Analysis of the impact of these closures on crime showed a reduction in violent assault rates, occurring one year after the reduction in alcohol availability and lasting for around five years (*41*). In California, the number of liquor stores allowed is determined by a city or county's population (one off-sale beer and wine license per 2,500 people) (*42*,*43*). A longitudinal analysis covering 581 zip (or postal) codes in California estimated that a reduction of one bar per zip code area would reduce assaults by 1% in the area, equivalent to 101 assaults per year (*42*). Decisions on the permitted number of alcohol outlets in an area are sometimes determined by perceived need or market forces. Consequently, an important issue is not just the legislative process but also whether licensing systems favour commercial interests or the protection of public health.

3. Increasing alcohol prices

Levels of alcohol consumption are linked to the price of alcohol. A range of meta-analyses have explored relationships between changes in price and demand for beer, wine and spirits and show that a 1% increase in the price of these drinks would decrease consumption by approximately 0.46% for beer, 0.69% for wine and 0.80% for spirits (*44*). With strong links between alcohol price and consumption, and in turn, consumption and violence, a range of studies have used economic modelling to estimate the effects of alcohol price increases on incidence of violence. Findings from the United States suggest:

- A 1% increase in the price of an ounce of pure alcohol would reduce the probability of intimate partner violence against women by 5.3% (*45*).
- A 10% increase in the excise tax on beer would reduce the probability of child abuse perpetrated by females by approximately 2% (*46*); it would, however, have no impact on child abuse perpetrated by males (*47*).
- A 10% increase in the price of beer would reduce the number of college students involved in violence each year by 4% (*48*).

The price of alcohol can be increased through increased taxation, state controlled monopolies, implementation of minimum prices for alcohol and bans on drinks promotions. However, the ability to implement such measures is frequently hampered by factors such as competition regulations and international trade agreements (*49*). In Finland, for example, European Union membership prompted a 33% decrease in alcohol taxes in 2004[2] which reduced average alcohol retail prices by 22% and led to increased consumption (*50*). A time series analysis using national data associated these tax cuts with a 17% increase in the average weekly number of alcohol-positive sudden deaths (including cardiovascular disease, accidents, homicides, suicides and sudden deaths of undetermined cause) (*51*). However, a before and after study covering the Helsinki Metropolitan area found no adverse effects of the price reduction on police-recorded violent crime or emergency call-outs related to domestic violence (*52*). For other Nordic countries (Sweden and Norway), models predicting the impacts of reductions in state alcohol retail monopolies and taxation following European Union membership suggested these would increase both alcohol-related mortality and violence (*53*). However, for Sweden, later analyses identifying actual effects of European Union membership found that predicted increases had not occurred for suicides or homicides, or for alcohol-related mortality in males. Despite this, increases were seen in non-fatal assaults, fatal accidents and alcohol-related mortality in females (*54*).

The Living With Alcohol project in the Northern Territory, Australia, used additional alcohol taxes to fund prevention interventions. This was associated with a reduction in acute alcohol-related harm (including violence); however the alcohol taxes were removed following a High Court ruling preventing such taxes from being applied (**see Box 4**). In England, economic modelling has estimated that setting a minimum price for alcohol of 50 pence per unit would reduce violent crime by 2.1%, equivalent to 10,300 fewer violent crimes per year (*55*).

[2] European Union membership forced Finland to conform to the requirement for free movement of goods between European Union countries. Alcohol taxes were lowered to prevent large increases in alcohol imports from other European Union countries with lower alcohol prices, particularly neighbouring Estonia, which joined the European Union in 2004 (*51*).

BOX 4

The Northern Territory Living With Alcohol (LWA) programme

The LWA programme, initiated in 1992, aimed to reduce alcohol consumption and related harm in the Northern Territory of Australia to national levels by 2002 through education, stricter controls on alcohol availability and improved treatment services. At the outset, the programme was funded through a state levy on sales of alcoholic drinks with greater than 3% alcohol by volume, adding five cents to the price of a standard drink. This levy remained in place until 1997, when an Australian High Court ruling prevented states from raising taxes on alcohol, tobacco and petrol. After this time, the levy was removed, but the LWA programme continued through other funding until 2002. A time series analysis of the LWA programme explored its association with acute alcohol-attributable deaths, which predominantly comprised road traffic accidents (52%), assaults (16%), suicides (16%), drownings (4%) and falls (3%). Analyses found that implementation of the levy and LWA programme was associated with reductions in hazardous and harmful alcohol consumption (particularly for males) and a 36.6% decrease in acute alcohol-attributable death rates, compared with a 15.9% decrease over the same period in a control area. After the removal of the levy, however, acute alcohol-related deaths remained stable in the Northern Territory while continuing to decline in the control area. While this suggests that effects may have resulted from the levy alone, the study design was not capable of confirming this (*56–58*).

4. Reducing alcohol use in problem drinkers

A systematic review of randomized controlled trials concluded that the following measures to address alcohol use in problem drinkers can reduce violence (*59*):

- In the United States, screening and brief intervention[3] with problem drinkers, including two 15 minute sessions with physicians and two follow up phone calls by nurses, was associated with fewer arrests for assault, battery and/or child abuse among participants than in those receiving standard care (8% versus 11%). Sustained reductions in binge drinking were also reported (*60*,*61*).
- In Australia, problem drinkers receiving cognitive behavioural therapy (e.g. goal setting, self-monitoring, problem solving) showed reduced risks of committing assault in the six months after treatment (0%) compared with those receiving cue exposure therapy (e.g. understanding drinking triggers, resisting alcohol after moderate consumption) (5%) (*62*).
- In Australia, partners of problem drinkers taking part in the Pressures to Change programme, which teaches participants strategies to promote positive changes in their partners' drinking behaviours, reported reduced intimate partner violence after the intervention (4 out of 16 participants in the programme versus 3 out of 7 controls) (*63*).
- In the United States, telephone aftercare for dependent drinkers discharged from hospital-based alcohol treatment services, providing a biweekly source of support to patients for a year following treatment, reduced suicide attempts in participants (4 out of 125 receiving the interventions versus 11 out of 167 controls) (*64*).

The review also found evidence that interventions with problem drinkers reduced other alcohol-related injury types (e.g. road traffic injuries).

Other studies have shown that structured treatment for alcohol dependence can reduce violence. For example, a before and after study in the United States followed 301 alcohol dependent males through an outpatient treatment programme that included eight individual and 16 group therapy sessions over a 12-week period (*65*). In the year prior to treatment, 56% of participants reported having been violent towards their female partner compared to 14% in a non-alcohol dependent control group. A year after the programme, violence had decreased to 25% in the alcohol dependent group. However, over half of the sample had relapsed into alcohol use; among remitted alcoholics, violence had decreased to 15%. There were also reductions in female-to-male aggression in remitted alcoholics within the programme. Similar beneficial effects on both male-to-female and female-to-male violence have been achieved, also in the United States, through an abstinence-oriented programme for male alcoholics combined with cognitive behavioural treatment for depression or relaxation therapy (*66*), and through behavioural marital therapy[4] for newly-abstinent male alcoholics and their partners (*67*,*68*).

[3] Brief interventions aim to identify a real or potential alcohol problem and motivate the individual to do something about it. Conducted in a variety of settings, particularly primary care and other health services, they typically comprise short one-on-one sessions providing at-risk drinkers with information on the adverse consequences of alcohol and techniques to help moderate their consumption.

[4] This seeks to promote relationship factors that are conducive to abstinence, including developing relationships with better communication and involving partners in abstinence promoting activities.

5. Community interventions to improve drinking environments

Alcohol-related violence occurs in and around drinking settings (e.g. pubs, bars and nightclubs). Research has found that specific environmental factors in drinking settings can contribute to violence, including low comfort levels (due, for instance, to limited seating availability or crowding caused by intersecting traffic flows resulting from inappropriate locations of entries, exits, bar serving areas, dance floors and toilets), poorly trained staff, permissiveness towards deviant behaviours and poor access to late night transport (*69*). A range of community-based interventions have thus sought to modify and manage licensed premises and their surrounding environments to reduce alcohol-related harm, including violence (*69–71*). A systematic review reported beneficial effects on violence reduction (*72*). For example, the Stockholm Prevents Alcohol and Drug Problems (STAD) project in Sweden reported a 29% reduction in violent crime through a combination of responsible beverage service training, community mobilisation and strict enforcement of existing licensing legislation (*73*). The intervention was also found to have significant cost-benefits. Further information is provided in **Box 5**.

In Australia, the Queensland Safety Action Projects used community mobilisation, codes of practice for licensed premises, increased enforcement of licensing laws and environmental safety measures (e.g. lighting and public transport) to address alcohol-related problems in nightlife environments. A controlled before and after study associated the intervention with reductions in arguments (28%), verbal abuse (60%) and threats (41%) in drinking premises over the course of the intervention. The changes within drinking venues that contributed most to reductions were improved comfort (e.g. availability of seating), increased public transport, less overt sexual activity and fewer highly drunk men (*75*).

Police activity is central to many violence reduction strategies in drinking environments. This can include highly visible policing of areas associated with alcohol-related disorder, and enforcement activity in licensed premises. The impacts of police enforcement have been explored in several countries, including Australia, New Zealand, the United Kingdom and the United States. A review of these strategies (*69*) concluded that the effects of ran-

BOX 5

The STAD project in Sweden

In Stockholm, the STAD project was initiated in 1996 to reduce alcohol-related problems in licensed premises, including violence. The project established a partnership between representatives of the licensing board, police, the county administration, the national health board, Stockholm city council, the organisation of restaurant owners, the trade union for restaurant staff and owners of licensed premises in the city. Interventions implemented through the project included responsible service training for bar staff, training of door supervisors in issues such as conflict management, house policies for licensed premises and increased enforcement of licensing legislation. Evaluation of the intervention found that violent crimes decreased by 29% during the intervention period (*73*). Cost effectiveness analysis estimated that the programme saved 39 euros for every one euro invested (*74*).

domized police enforcement (targeting licensed premises at random) were modest, with intervention periods and any benefits on violence often being short-lived. Greater evidence supports the use of targeted police enforcement on practices *within* licensed premises. In New South Wales, Australia, the Alcohol Linking Program records whether individuals involved in police-attended incidents had consumed alcohol prior to the incident, and where they had consumed their last drink. Licensed premises identified as 'last drink' locations received feedback detailing the number and characteristics of alcohol-related crimes associated with their premises. This was followed by a police visit to the premises to conduct an audit of management practice and provide recommendations for improvement, with licensees also invited to attend a police-led workshop on responsible premises management. Evaluation using a randomized controlled design found greater reductions in alcohol-related incidents and assaults in intervention sites (*76*).

Training for staff in licensed premises can also form an important aspect of community-based prevention measures and many programmes focus on the responsible serving of alcohol by bar staff. In Canada, the Safer Bars training programme has shown success in reducing aggression by developing staff skills in managing and reducing aggressive behaviour. Safer Bars involves: a three-hour training programme for all staff in licensed premises; a workbook for bar owners and managers to help them to assess environmental risks in their premises that may contribute to violence; and a pamphlet informing bar owners and staff of their legal responsibilities in preventing violence. A randomized trial showed that the programme reduced severe and moderate aggression in intervention premises; these effects were moderated by the turnover of managers and door staff in bars, with higher staff turnover associated with higher aggression post-intervention (*77*).

Community interventions that incorporate, but extend beyond, alcohol server settings have also been found to have beneficial effects. In Sweden, the Trelleborg Project addressed youth drinking and related harm by developing and implementing: community and school policies on alcohol and drug management; a school curriculum on alcohol and drug use; information materials for parents; and enforcement activity against off-licensed alcohol retailers. Evaluation suggested that self-reported alcohol-related violence had reduced over the intervention period and was attributed to reductions in excessive drinking and frequency of consumption of distilled spirits (*78*). In the US, a longitudinal time series analysis explored the impacts of a combination of community and media mobilization; responsible beverage service; strengthened licensing legislation; and increased enforcement of the ban on sales of alcohol to under-age customers and of drink driving and licensing legislation. The intervention was associated with reductions in alcohol consumption, assaults and road traffic crashes (*79*).

6. Summary

The evidence base for violence prevention through alcohol-focused interventions is promising. However, implementing and studying alcohol-focused interventions, particularly those that require legislative changes, can be complex and consequently the range of evidence currently available is limited and comes largely from developed countries.

Generally, studies exploring the impact of reduced alcohol sales hours have found these to be associated with reduced violence, including homicide. Conversely, extended alcohol service hours have been associated with increased violence, yet in some setting have shown few effects. For alcohol pricing, economic modelling studies strongly suggest that increasing prices would be an effective violence reduction strategy. Successful implementation of any measure to regulate alcohol availability requires an established system of state licensing or other formal control at national or local level. Where effective systems do not exist, implementing such systems is a prerequisite for effective management of alcohol availability.

A number of good quality studies have shown that brief interventions and structured alcohol treatment for problem drinkers can reduce individuals' risks of violence. Similarly, several studies of community-level interventions in alcohol server settings have reported success in reducing violence. The development of multi-agency partnerships to coordinate components of community interventions also facilitates the implementation of broader alcohol and violence focused prevention strategies.

While there is considerable evidence linking alcohol consumption and violence, models for addressing this relationship are limited in both number and geographical distribution. Thus, across all types of alcohol-focused interventions discussed here, evidence is largely limited to studies conducted in high-income countries. However, current evidence does support the use of alcohol-focused interventions to prevent violence. Further, the benefits of reducing the harmful use of alcohol are substantial and extend far beyond reductions in violence to include decreases in accidents, cancers, liver disease and a wide range of other health and social problems. Successfully implementing restrictive measures and ensuring they are not overturned, however, requires governmental commitment to prioritize public health over commercial benefits, along with better public understanding of the harms associated with alcohol, including links between alcohol and violence.

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violence prevention
the evidence

4.

Guns, knives and pesticides: reducing access to lethal means

Overview

Evidence suggests that limiting access to firearms, knives and pesticides saves lives, prevents injuries and reduces costs to society.

Homicide and suicide claim 600 000 and 844 000 human lives respectively, each year worldwide. This comes at a terrible cost to society – psychological and financial – and inhibits progress towards all eight of the United Nations' Millennium Development Goals. This carnage could be significantly reduced, however, by limiting access to three of the most lethal means of violence: firearms, sharp objects (such as knives) and pesticides.

Firearms: Jurisdictions with restrictive firearms legislation and lower firearms ownership tend to have lower levels of gun violence.

Measures include bans, licensing schemes, minimum ages for buyers, background checks and safe storage requirements. Such measures have been successfully implemented in countries such as Austria and Brazil and in a number of states in the United States of America. Introducing national legislation can be complicated, but much can be done at local level. Stiffer enforcement, amnesties and improved security for state supplies of firearms are some of the other promising approaches. Multifaceted strategies are also needed to reduce demand for guns – diverting vulnerable youth from gang membership, for instance.

Sharp objects: As well as control measures, governments need broad strategies to reduce socioeconomic factors underlying the violent use of these weapons.

Less evidence is available on the impacts of efforts to reduce violence associated with sharp objects than for firearms. Until now concerned authorities have focused on similar measures to those used for the control of guns. In the United Kingdom these have included legislative reforms (bans on flick knives, minimum ages for purchasers etc.), stiffer enforcement ("stop-and-search" initiatives) and amnesties; however, their impact is not yet clear.

Pesticides: Safer storage, bans and replacement by less toxic pesticides could prevent many of the estimated 370 000 suicides caused by ingestion of pesticides every year.

Members of agricultural communities in low- and middle-income countries are heavily over-represented in the suicide death toll related to pesticides. Controlling access to pesticides is not only critical in reducing self-directed violence, it is key to preventing unintentional poisoning and terrorism. International conventions attempt to manage hazardous substances; however, many highly toxic pesticides are still widely used. Studies indicate that bans must be accompanied by evaluations of agricultural needs and replacement with low-risk alternatives for pest control.

Further research is needed, particularly in low- and middle-income countries.

The development of robust injury-data collection systems and further studies are required to deepen our understanding of the impacts of measures to reduce access to lethal means, especially in low- and middle-income countries.

1. Introduction

Each year, homicide and suicide take the lives of 600 000 and 844 000 people respectively, worldwide. Though not as devastating, in global terms, as diarrhoeal disease (which kills 2.16 million people each year) or HIV (2.04 million), these causes of death far exceed many others, including war and civil conflict (184 000) (*1*).

Evidence shows that preventing such interpersonal and self-directed violence demands broad strategies that limit access to common lethal means such as guns, sharp objects and pesticides, while reducing demand for these lethal means by addressing social determinants of this violence (*2*).

Whether people succeed in attempts at homicide and suicide depends heavily on the means used (*3*,*4*). Firearms and sharp objects are among the most common weapons used in homicide. The use of firearms accounts for 60% of all homicides, killing about 360 000 people per year, according to the latest estimates (*5*). Firearms are also commonly used in self-directed violence, as are acutely toxic substances such as pesticides. Ingestion of pesticides, for example, accounts for an estimated 370 000 suicides every year (*6*).

Access to and violent use of lethal means vary widely, as the below facts and figures on firearms, sharp objects and pesticides indicate (**Boxes 1, 4, 5**) (*4*,*6*–*8*). Equally variable is the staggering cost of lethal violence to society: its destruction of families, the heavy burden it places on public services and, in the case of interpersonal violence, the widespread fear it triggers. Reducing access to lethal means is, therefore, a critical factor in addressing global priorities related to public health, access to basic needs, economic development and security. Specifically, lethal violence hampers progress towards all eight of the United Nations' (UN) Millennium Development Goals (*9*).

The good news is that violence is preventable. This briefing summarizes evidence from research on the impacts of strategies of violence prevention at all levels of government (national, state and local) that aim to reduce access to firearms, sharp objects and pesticides. The strategies addressed are legislative measures, enforcement of legislation, amnesties and collection schemes, managing state supplies, safer storage and safety features.

Evidence from research on measures to reduce access to firearms is far more abundant than the evidence available on policies and programmes for the control of sharp objects and pesticides. Furthermore, most studies of access to firearms and sharp objects have been conducted in higher income countries. Research on these topics in lower income countries is growing, however, and it warrants much greater support.

This document does not discuss international measures to control lethal means, though it recognizes that legal and illegal trade in lethal means operates across many borders. Controlling this trade through national, state-level and local interventions is the aim of a variety of international agreements and initiatives, and the responsibility of all nation states.

2. Reducing access to firearms

BOX 1

Firearms: facts and figures

- There are at least 875 million firearms in the world today of which 75% are owned by civilians (over a third by civilians in the United States). Just 9% of civilian firearms are estimated to be registered with authorities (*8*).
- An estimated 360 000 people are killed with firearms in non-conflict situations each year. A further 184 000 violent deaths occur annually in armed conflicts (*1*).
- Firearms are involved in the vast majority of homicides in many countries. In Medellín, Colombia, guns figure in 89% of homicides (*10*); Montenegro, 85% (*11*); Yemen, 80% (*8*); the United States, 70% (*12*); and Brazil, 69% (*13*). The proportion of homicides involving firearms ranges from 19% in western and central Europe to 77% in Central America (*5*).
- The proportion of suicides involving firearms ranges from 0.2% in Japan to 60.6% in the United States, among males, and from 0% in Iceland, Kuwait and other countries to 35.7% in Uruguay and the United States, among females (*14*). Among European males aged 15–24, the proportion of suicides involving firearms ranges from 2.3% in England to 43.6% in Switzerland (*15*).
- In South Africa, the cost of hospital treatment for serious abdominal firearms injuries alone is estimated at 4% of the annual national health budget (*16*). In England and Wales, each homicide is estimated to cost society £1.5 million (*17*).

Many studies have explored the impact of measures to reduce access to firearms on violence. Interventions discussed here include legislative measures, improving enforcement of legislation, firearms amnesties, managing state weapons supplies, promoting safer storage and firearm safety features. This range of interventions is by no means comprehensive – other activities that seek to reduce firearms access include preventing home manufacture of firearms or conversion of replica firearms and reducing illegal cross-border trafficking. Little research has been done, however, on the impact of such measures on violence prevention. Furthermore, while this briefing does not look at international firearms control measures, it is important to recognize that international agreements, specifically the UN *Protocol against the illicit manufacturing of and trafficking in firearms, their parts and components and ammunition* (2001), commit signatory nations to implementing their own firearms legislation and control measures.

2.1 Legislative measures

Jurisdictions with more restrictive firearms policies and lower firearms ownership tend to experience lower levels of firearms violence (*18–22*). At all levels of government, therefore, measures to prevent violence involving firearms often focus on strengthening legislation to control the sale, purchase and use of these weapons. To be successful, such legislation must be effectively implemented, publicized and enforced. Legislative measures include:

- Bans on certain types of firearms;

- Licensing and registration schemes for owners and suppliers;
- Minimum ages for the purchase of firearms;
- Background checks and/or psychological testing of purchasers;
- Minimum waiting periods between licensing and purchasing;
- Limits on quantities purchased;
- Controls on the carrying of firearms; and
- Safe storage requirements.

Australia, Austria, Brazil and New Zealand provide examples of reforms of firearm laws at the national level that have had promising effects.

AUSTRALIA: Australian firearms laws were reformed in 1996 after a mass shooting. The new legislation prohibited semi-automatic and pump-action shotguns and rifles and introduced a national firearms licensing and registration scheme, including a written safety test for purchasers. The government also offered financial compensation to those surrendering weapons. Studies conducted after the reforms have provided mixed results and illustrated some of the difficulties in analysing the impacts of violence prevention measures (*26–30*). Some studies found reductions in both firearms homicides and firearms suicides (*27*,*28*), while another found only a decrease in firearms suicides (*29*). One study concluded that other methods of suicide had not increased, as firearm suicides decreased (*27*).

AUSTRIA: In 1997, Austria introduced new laws requiring that purchasers of firearms be at least 21, have a valid reason to purchase a firearm and undergo background checks and psychological testing. In addition, the legislation requires a three-day waiting period between licensing and purchasing, together with safer firearm storage. Suicide rates had been decreasing prior to the new laws, but the proportion of suicides involving firearms had been increasing. The reforms changed this dynamic, as the proportion of firearms suicides began to fall, without an accompanied increase in suicides by other means. Austria's new laws have also been associated with falling demand for firearms licences and a drop in the number of homicides involving guns (*23*).

BRAZIL: In response to some of the highest homicide rates in the world, Brazil reformed its firearms legislation in 2003. The new laws raised the minimum purchase age to 25, made it illegal to own unregistered firearms, prohibited the carrying of firearms outside the home or workplace, introduced background checks for buyers and controlled imports of firearms. A voluntary disarmament scheme was also implemented, which official sources report returned over 450 000 firearms. Analyses suggested that the reforms were followed by an 8.8% decrease in firearms mortality between 2003 and 2005, with decreases in both firearms homicides (8.0%) and suicides (8.2%). Accidental firearm deaths dropped by 15.2% and firearm-related deaths of "undetermined intent" dropped by 26.3%. Gun-related hospitalization, meanwhile, mostly following attempted suicide or unintentional injury, decreased by 4.6% (*25*).

NEW ZEALAND: After a mass-shooting in 1990, the government established a rigorous licensing system. This requires photos of firearms owners and regular renewals, tests to ensure that applicants understand laws governing firearms and police assessment of all applicants. It also calls for safe and locked storage of guns in areas separate from ammunition. The system has significantly reduced firearms suicides, particularly among people 25 years and under. Studies, however, have yet to determine whether other forms of suicide increased as firearms suicides decreased (*24*).

At the state and municipal levels in Colombia, El Salvador and the United States, innovative legislation has reduced access to firearms.

COLOMBIA: Local legislation here banned the carrying of firearms in the cities of Cali and Bogotá on holidays, weekends following paydays and election days. The bans were enforced with police checkpoints, searches during traffic stops and routine police work. Studies showed that the incidence of homicides dropped in both cities on days when the ban was in place, compared to similar days when people were allowed to carry guns (*31*).

EL SALVADOR: Municipalities in an Arms-Free Municipalities project, which began in August 2005, have made it illegal to carry firearms in parks, schools, plazas, recreation centres and other locations. The project also aimed to increase police capacity to enforce firearms bans, run a media campaign on the danger of guns and the nature of the new regulations, implement a voluntary firearms surrender and collection scheme and evaluate the project. Despite some difficulties in implementation, the project initially reported a 47% reduction in homicides in participating municipalities, among other successes; however, reductions in homicides were not sustained over the first year of the project (*32*,*33*).

UNITED STATES: Box 2, below, offers examples of the impact of state-level firearms legislation on violence. While a United States review of firearms laws found insufficient evidence to establish the effectiveness of either individual laws or combinations of laws on interpersonal or self-directed violence (*34*), the authors stressed that this did not necessarily mean such laws were ineffective. Rather, they argued, more rigorous data and research were required to strengthen the evidence base.

2.2 Improving enforcement of legislation

Legislation to reduce access to firearms can only be effective if it is enforced. For example, despite controls on firearms dealers in the United States, a small number of rogue dealers are often responsible for selling a large proportion of the weapons used in crime (*44*). Furthermore, most firearms used in crime are initially purchased legally, yet transferred by illegal means to criminal hands (*45*). This explains why most guns recovered in criminal investigations in Canada, Haiti and Mexico have been illegally imported from the United States (*45,46*). Firearms licensing systems, however, can allow data on transactions (firearm serial numbers, details about purchasers and dealers, etc.) to be collected and used to trace firearms involved in crime and, thus, capture and punish offenders (*47*). However, proactive enforcement can have strong deterrent effects and thus be important in controlling access to firearms.

At the state and local levels, a variety of measures can be used to enforce firearms licensing legislation. In some states in the United States, police officers have posed as criminals in undercover operations to purchase firearms from licensed dealers. Such operations were found to significantly reduce the supply of firearms to criminals when followed by lawsuits against offending dealers and high-level media coverage. By contrast, results were less positive when legal action was not taken and operations were less publicized (*48*). In Boston, Operation Ceasefire, implemented through the multi-agency Boston Gun Project (*49*), used research and firearms tracing data

BOX 2

Examples of state-led legislative controls of firearms in the United States

BANS ON CERTAIN FIREARMS: Maryland's ban on small, low-quality, inexpensive handguns was associated with an increase in gun purchases prior to implementation and an increase in firearms homicides immediately after the ban. Firearms homicides then decreased (*35*), however, suggesting that the ban had a delayed effect.

ONE-GUN-A-MONTH: Laws that limit the purchase of firearms to one per individual per month aim to reduce access to weapons among potential traffickers. The use of such legislation in Virginia was found to reduce interstate trafficking of firearms purchased in the state (*36*).

KEEPING GUNS OUT OF REACH OF CHILDREN: Child-access prevention (CAP) legislation requires owners to store firearms safely away from children (e.g. under lock and key) and makes the failure to do so a criminal offence (37). Studies have associated CAP laws with modest reductions in firearms (and overall) suicides among adolescents (38) and, in states where violation of CAP laws is a serious crime (felony), reductions in unintentional firearms fatalities among children (*39–41*).

GUN SHOW REGULATION: In California, where gun shows are regulated, promoters must be licensed and private firearms sales are highly restricted. These restrictions are associated with a lower incidence of anonymous, undocumented firearms sales and illegal *straw purchases* than in states with weaker regulation of private sales and gun shows (*42*). (A straw purchase is one undertaken by a proxy on behalf of somebody who is not permitted by law to purchase or own the item.)

KEEPING GUNS AWAY FROM VIOLENT OFFENDERS: Federal law prohibits possession of firearms by offenders who are subject to a restraining order protecting an intimate partner or their children; but not all offenders subject to these restraining orders are covered by this law. To close this gap, several states have enacted additional legislation. This allows for background checks of buyers to prevent those who have used violence against an intimate partner from possessing or purchasing firearms. These laws may also allow police to confiscate firearms at the scene of acts of violence against intimate partners. Research on the impact of such legislation has found that restraining order laws have reduced intimate-partner homicide in states where authorities have a strong ability to conduct background checks and prevent offenders from purchasing firearms (*43*).

to inform police enforcement and deterrence measures targeting firearms traffickers and violent gang members. The deterrence measures included meetings and outreach with gang members to inform them of increased enforcement activities and that violence would no longer be tolerated (*49*). An evaluation of the effectiveness of these measures, which however did not use a control area or group, found that they were associated with decreases in youth homicides, firearms assaults and calls for police to attend scenes where guns had been fired (*50*).

2.3 Firearms amnesties and collection schemes

Civilian firearms amnesties and buyback schemes are commonly used at national, state, or local level to remove illicit firearms from public possession. Amnesties can be voluntary or coercive and, as noted above, sometimes provide compensation for surrendered firearms. Also, as part of broader legislative reforms, they are often accompanied by awareness-raising activities, or, after armed conflicts, peacekeeping measures.

The 1996 Australian firearms reforms involved a buyback scheme whereby the state purchased newly prohibited firearms from civilians at cost. This resulted in the destruction of over 700 000 firearms (*27*). In addition, the legislation controlled civilians' access to replacement firearms. There is little evidence, however, indicating the effectiveness of buyback schemes as stand-alone measures. Studies of three schemes in the United States found no significant crime reduction (*51*), and that the types of firearms returned differ from those used in crime (*52*). Furthermore, they found little evidence that firearms are surrendered by those most likely to commit crimes (*53*). Economic analyses have suggested, meanwhile, that without measures preventing access to new weapons, repeated buyback schemes will only reduce the number of firearms in circulation temporarily. Worse, the studies suggest they may actually increase firearms holdings by lowering ownership costs (as the compensation for turning in used firearms reduces the actual cost of purchases) (*54*).

In post-conflict situations, however, disarmament can be an essential part of peace-building. In Cambodia, weapons collection after the civil war removed 130 000 non-government controlled firearms between 1998 and 2006. The measures, undertaken with international assistance, came with financial backing and support for local development projects in areas where firearms had been surrendered and for the development of government and police weapons registration and stockpile storage systems. Analysis suggests that the measures helped to reduce both firearms homicides and overall homicides (*55*).

El Salvador and Sudan provide other examples of post-conflict disarmament, but the impacts of these interventions on violence have not been measured. The end of the civil war in El Salvador prompted a major disarmament of guerrilla groups, which had gained political legitimacy in the peace process. The process was facilitated by former combatants, who provided a list of the weapons they had to the UN monitoring group. Two rounds of collection (the second of which included arms stored outside El Salvador's borders) brought in over 9000 individual arms, 9000 grenades and 4 million rounds of ammunition (*56*). In Sudan, weapon amnesties following years of civil war had varied success. In the northern Jonglai region, an (initially) voluntary amnesty contributed to increased political and tribal tensions, violence and food shortages owing to a failure to ensure civilian safety and clarify disarmament conditions; coercive disarmament eventually brought in more than 3000 firearms. A later disarmament programme in the Akobo region included security guarantees and compensation for weapons surrendered. It also used community-based committees to manage the disarmament and school teachers were trained to accept, register and store surrendered weapons. The programme, which ran for just a short period, led to the peaceful return of an estimated 1400 firearms (*57*).

2.4 Managing state weapon supplies

Poorly secured stocks of state weapons can be a major point of access to illicit firearms, through theft or unlawful sales. As in Cambodia (see **section 2.3**), weapons management programmes – often implemented with international support – are improving the storage and management of supplies of government and police weapons in many countries. In Papua New Guinea, for example, auditing suggested that 30% of police guns had fallen into criminal hands. Armoury development programmes, implemented with assistance from Australia and New Zealand, have built new armouries, destroyed surplus weapons, trained police and military staff and allowed for the creation of weapons inventories, among other benefits. The programmes are also thought to have dramatically reduced the leakage of police firearms into criminal hands (*58*). The Organization for Security and Co-operation in

BOX 3

Reducing demand for firearms and sharp objects – three key issues

HIGH LEVELS OF VIOLENCE: Self-protection in the face of high levels of violence is often the major reason given for individuals accessing, owning and carrying firearms and other lethal means. In countries such as Brazil (*67*) and Sudan (*57*), attempts at firearms control have been hampered by a perceived need of individuals for protection, owing to high levels of violence, civilian insecurity and a lack of faith in the ability of the police (or state) to protect them from violence. As a result, making criminal justice systems more effective and ensuring that they are perceived as just are critical steps in reducing civilian demand for lethal means.

GANG MEMBERSHIP: Gang membership has been shown to increase young people's access to weapons, particularly firearms (*68–70*). Measures to prevent young people joining gangs, and to divert members away from them, should help reduce access to weapons among youths. Such measures can include creating educational and employment opportunities for at-risk youth and cognitive-behavioural interventions, such as life-skills development. Recent systematic reviews, however, have identified an urgent need for rigorous studies of such measures to ascertain their effectiveness in preventing youths from joining gangs (*71,72*).

ILLEGAL DRUG MARKETS: A wide range of evidence links ownership and use of lethal means to the presence of, and involvement in, illegal drug markets (*70,73,74*). As these markets lack formal controls, violence is used for solving disputes, sanctioning informers, eliminating rivals, punishing debtors, among other purposes (*73,75*). Thus weapons are widely used for both committing violence and self-protection. Measures to disrupt illegal drug trades and reduce demand for drugs should also help reduce the need for and availability of lethal means.

Europe has produced a handbook with guidance on the management of national small arms and light weapons stocks (*59*).

2.5 Safer firearm storage

The presence of a gun in the home is a key risk factor for both firearms homicide and firearms suicide (*60,61*). Furthermore, many firearms that cause intentional and unintentional injuries in children are accessed via family members or friends, often within the home. Requirements for safe storage are therefore a part of firearms legislation reforms in several countries (see **section 2.1**). Safe storage techniques include storing firearms unloaded in a locked receptacle, storing firearms and ammunition separately and locking up ammunition. All these techniques have been associated with protective effects against youth firearms injuries (*62*). In the absence of legislation, measures to reduce access to firearms by children have focused on educating parents in safe storage techniques. Such interventions often involve health professionals providing advice to parents on firearms storage. One study found greater improvements in safe firearms storage practices among patients who had undergone a brief counselling session with a family physician (*63*). Other studies have found, however, that such measures in primary care settings have little effect on either firearms ownership or storage practices (*37,64*).

2.6 Firearm safety features

There are a wide range of safety features and products that can be used to prevent accidental firearms injuries and the use of firearms by children and other individuals not authorized to use them. These include grip safety devices, magazine safety devices, drop safety devices and trigger locks. While it is considered likely that improved product safety measures have the potential to reduce firearms injuries and access, as yet there is little examination of this and concerns have been raised that the sheer numbers of non-personalised firearms in circulation would limit the utility of such measures at least in the short term (*65*).

2.7 Reducing demand for firearms

Alongside measures that aim to reduce access to firearms, there is much that can be done to reduce the demand for all weapons. A detailed discussion of the risk factors for firearms violence is beyond the scope of this briefing (*66*), but **Box 3** outlines three factors that should be addressed to reduce risk of individuals accessing firearms and sharp objects.

3. Reducing access to sharp objects

BOX 4

Sharp objects: facts and figures

- Sharp objects are commonly used weapons in homicides in Malaysia (sharp objects involved in 41% of homicides in Kuala Lumpur) (*76*), Scotland (knives, 47%) (*77*), Nigeria (knives, 40%) (*78*) and Australia (knives, 34%) (*79*).
- Almost one-in-ten Israeli boys (grades 7–11) report having carried a knife to school in the last month (*80*).
- In England and Wales, 6% of all violence against adults involves the use of knives and 4% involves the use of glasses or bottles as weapons (*81*).
- Typically, use of sharp objects accounts for only a minority of suicides: for example, 2.5% in Japan (*82*) and 2% in Australia (*4*).
- A study of 15- and 16-year-olds found self-cutting to be the most common form of deliberate self-harm in most participating countries (Australia, Belgium, England, Ireland, Netherlands, Norway). Prevalence of deliberate self-harm in the last year ranged from 1.6% to 4.2% in males and from 3.6% to 11.7% in females (*83*).

The research evidence on measures to reduce access to sharp objects is less well developed than for firearms, and most information stems from the United Kingdom where knife violence, particularly among youths, is a major social and political concern (*84*). Unlike firearms and pesticides, sharp objects are not common means in suicide; however, they are frequently used for non-suicidal self-harm (e.g. self-mutilation) (*83*), an issue beyond the scope of this briefing. Knives and other sharp objects are common household and workplace tools and their widespread availability and utility complicates control measures. Thus broader strategies to reduce individual, relationship, community and societal risk factors for violence are needed to prevent violence involving sharp objects. Until now, however, measures to prevent access to sharp objects for violent use have typically been similar to those used for firearms. This briefing focuses on legislative reforms, enforcement of legislation and weapons amnesties.

3.1 Legislative measures

As with firearms, legislation in many countries aims to limit access to knives and other sharp objects. In the United Kingdom, for example, it is a criminal offence to carry a knife or other sharp object[1] in public without good reason, and many types of knives (e.g. flick knives) and other offensive weapons have been banned. It is illegal to manufacture, sell, hire, possess or expose for the purpose of sale, lend or give to another person banned weapons (*85*). Since 2006, legislative changes have raised the minimum purchasing age for knives from 16 to 18, increased the maximum prison sentence for knife possession from two to four years, provided police with greater powers to search individuals for knives, provided teachers with powers to search pupils for knives and added replica samurai swords to the banned

[1] An exemption is made for folding (pocket) knives with blades less than three inches long.

weapons list. In Scotland, a licensing system is being introduced that will require any business dealing in knives and blades for use outside the home to be licensed. The impact of these legislative changes on access to knives or violence in the United Kingdom has not yet been measured, however.

At a local level, authorities in some countries have adopted legislation to reduce serious violence involving the use of broken glasses and bottles as weapons. Unlike other sharp objects, such as knives, which are often consciously obtained and carried by individuals, glasses and bottles are typically used opportunistically during violence in drinking environments.[2] In the United Kingdom, where all premises serving alcohol are required to be licensed, several local licensing authorities have used licensing conditions to require drinking premises associated with violence to use non-glass (e.g. polycarbonate[3]) drinking vessels. Although there is currently little evidence on the impact of such bans on violence, initial studies have found that the use of polycarbonate vessels increases customer perceptions of safety (*86*). The use of toughened glassware (intended to have higher impact resistance than standard glassware) has also been promoted in drinking settings. A study of the impact of toughened glassware, however, identified quality-control problems in the manufacture of this product; the toughened glassware tested actually had lower impact resistance and its use led to more injuries among bar staff (*87*). Increasing the impact resistance of drinking vessels used in drinking environments is, therefore, critical in injury prevention.

Bans preventing the consumption of alcohol or the carrying of open alcohol containers in designated public places have also been introduced locally in several countries such as the United Kingdom (*88*) and New Zealand (*89*). Such bans can reduce the presence of glasses and bottles in streets, where they can be accessed and used as weapons. Again, there is little evidence available on the impact of such bans, although their use in New Zealand is considered to have contributed to reductions in violence and disorder as well as littering of dangerous broken glass in public places (*89*).

[2] Alcohol use is a known risk factor for involvement in violence, and is regularly identified as a contributor to both homicide and suicide. Another briefing in this series addresses measures for reducing availability and misuse of alcohol.

[3] Polycarbonate glassware is a form of plastic glassware that looks and feels similar to glass but is virtually unbreakable.

3.2 Enforcement of legislation

Although enforcement of firearm legislation has proved important in reducing access to firearms, little research has been conducted on enforcement measures tackling illicit possession or sales of knives. Under the Knives Act 1997, "stop-and-search" tactics are used by United Kingdom police to search individuals who they suspect may be carrying offensive weapons, yet the effectiveness of such methods has been questioned. Across England and Wales, stop-and-search techniques ("in anticipation of violence") were used on a total of 18 900 people in 2001–2002. Of this total, however, 1367 (7%) were found to be carrying an offensive or dangerous instrument and, of these, just 203 (15%) were arrested for possession (*90*). Moreover, perceived or actual disproportionate use of such powers against particular population groups (e.g. young black males) can create resentment and police mistrust, thus damaging relationships between communities and police (*91*).

3.3 Knife amnesties

Weapons amnesties are also commonly used to remove sharp objects, such as knives, from public possession. Knife amnesties are frequently implemented in the United Kingdom, yielding high return rates, yet demonstrating little long-term effectiveness. In 2006, for example, a national knife amnesty in England and Wales collected 89 864 knives over approximately two months. In London, the Metropolitan Police Service reported reductions in knife-enabled offences beginning five weeks into the amnesty, yet these were sustained for just eight weeks before returning to pre-operation levels (*92*). In Strathclyde, Scotland, a police-led initiative to prevent knife crime, Operation Blade, combined a knife amnesty with a high-profile media campaign, improved safety measures in drinking environments and communication with both knife retailers and young people. The intervention was followed by reductions in both knife crimes reported by police and serious stabbings treated at an accident and emergency department; however, effects were not sustained a year after the intervention (*93*).

3.4 Reducing demand for sharp objects

Many of the risk factors for accessing and using sharp objects for violent purposes are the same as those for firearms. Although a detailed discussion on such risk factors is beyond the scope of this briefing, **Box 3**, above, outlines three key factors that should be addressed to reduce the risk of individuals accessing and using sharp objects.

4. Reducing access to pesticides

BOX 5

Pesticides: facts and figures

- Pesticide ingestion accounts for an estimated 370 000 suicides each year, worldwide, more than one third of all suicides (*6*).
- The proportion of suicides by ingestion of pesticides varies from 4% in WHO's European Region to 56% in its Western Pacific Region (*6*). A disproportionate number of suicides by pesticide self-poisoning occur in low- and middle-income countries.
- In many rural areas of South-East Asia, pesticide ingestion accounts for over 60% of suicides (*94*). Estimates suggest that more than 160 000 people in this region kill themselves each year by ingesting pesticides (*6*).
- The toxicity of pesticides to humans varies widely; ingestion of paraquat is fatal in over 60% of self-poisoning cases (*95*), compared with less than 10% for the insecticide chlorpyrifos (*96*).
- Pesticide poisoning places huge burdens on health services in developing countries. In 1995–96, 41% of intensive care beds in a Sri Lankan hospital were occupied by people poisoned by organophosphates (*97*). The overall estimated cost of treating self-poisoning cases in Sri Lanka in 2004 was about $1 million (*98*).

The issues surrounding pesticides can appear quite different from those posed by firearms and sharp weapons, yet the measures used to reduce access to them can be similar. Pesticides are predominantly associated with impulsive acts of self-harm and their burden falls largely on agricultural communities in developing countries. Furthermore, many acts of pesticide-related self-harm in which the individual does not intend to die actually result in death, owing to the high toxicity of pesticides and, particularly in rural areas, lack of available treatment. Controlling access to pesticides is not only critical for reducing self-directed violence, but also for preventing other forms of injury and violence, ranging from self-harm, through unintentional poisoning, to terrorist attacks. Although not discussed in this briefing, pesticides cause major damage through unintentional poisoning and could be used as deadly weapons to contaminate food (*99*).

Different pesticides have different levels of human toxicity, and consequently pose varying levels of risk to human health. Since 1975, the WHO has maintained a classification system to distinguish between more and less hazardous pesticides based on their acute risks to health (*100*).[4] In 1985, the Food and Agricultural Organization of the UN produced an *International Code of Conduct on the Distribution and Use of Pesticides* (*101*). The code sets voluntary standards for all bodies involved in pesticide use and distribution, particularly those operating in countries with weak pesticide laws. A range of other international conventions have been implemented to encourage nations and the pesticide industry to manage hazardous substances effectively, such as the Stockholm Convention (2004), which seeks to eliminate use of nine of the

[4] WHO Classifications: Class 1a = extremely hazardous; Class 1b = highly hazardous; Class 2 = moderately hazardous; Class 3 = slightly hazardous.

most harmful pesticides (*102*). Many high-income countries have already banned the use and export of such substances (e.g. the European Union (*103*)). Many are still used, however, in developing countries where safer use and management of pesticides are limited by a lack of funds, expertise, human resources, training, data, technology, public awareness and other resources (*104–106*). For example, according to Pesticide Action Network International, 73% of pesticides imported by Thailand are WHO Class 1a or 1b (*107*). Even where legislation exists, enforcement can be weak, while in many countries unauthorized, informal markets operate, supplying pesticides that are repackaged, diluted or mixed and, consequently, inaccurately labelled (*108*).

Preventing access to the more hazardous types of pesticides is an essential part of suicide prevention. Measures that can be undertaken to prevent such access include regulatory policies to restrict or ban production, import or sale of certain pesticides and measures to improve the safety of storage.

4.1 Legislative measures

Policies that restrict or ban the use of highly toxic substances can reduce access to lethal means and reduce suicide mortalities. Evidence of the impact of such bans on suicide mortality is available from several countries. For instance, after Jordan banned the organophosphate parathion (which had been responsible for over 90% of pesticide deaths) in 1981, there was an 80% decrease in poisoning deaths requiring autopsy in Amman (*104*). A later study showed that carbamates, rather than organophosphorus pesticides, had become the most common pesticides in fatal poisonings (*109*).

Probably the most widely studied pesticide regulation is Sri Lanka's (**Box 6**). The case of Sri Lanka also shows, however, that restrictions on specific pesticides can lead farmers to substitute other dangerous substances for banned pesticides. Consequently, while restrictions and bans on highly toxic substances can be effective, implementation of such measures should be accompanied by work to evaluate agricultural needs and encourage replacement by low-risk alternatives for pest control (*110*).

In Samoa, a rapid increase in self-poisoning and suicide occurred following the introduction of paraquat in 1974. Reduced imports of paraquat from 1982 onwards – rather than a legislative ban – resulted in a subsequent drop in suicide rates (*104*).

4.2 Safer pesticide storage

Access to pesticides can be reduced through developing and maintaining safer pesticide storage practices. In developing countries, much agriculture takes place on small-holdings, with each farming family storing and using its own pesticide stocks. Unsafe storage practices are often the norm. A survey of cotton and pineapple farmers in Benin, for example, found that the majority stored their pesticides in their homes – about 75% in bedrooms and 5% in kitchens. Less than one in ten kept them in a separate store outside the home, and the remainder either in fields or under granaries (*113*). Research has shown that many fatal self-poisoning cases in the developing world are impulsive acts

BOX 6

Impact of targeted pesticide bans in Sri Lanka

Suicide rates in Sri Lanka increased eightfold between 1950 and 1995 (*111*), with over two-thirds of suicides involving pesticide poisoning (*112*). From 1991, imports of WHO Class 1 (highly or extremely hazardous) pesticides were gradually reduced until a total ban on their import and sale was implemented in 1995. The ban was followed by a sharp decrease in suicide mortality. The number of hospital admissions for pesticide self-poisoning increased, however, as did the in-hospital mortality rate for pesticide poisonings. This occurred as the 1995 ban prompted farmers to switch to the Class 2 (moderately hazardous) insecticide endosulfan. This in turn led to an increase in self-poisoning with this substance, which, ironically, is more difficult to treat than poisoning by more toxic Class 1 pesticides. Endosulfan was itself banned in 1998, a move associated with further decreases in suicide mortality (including now in-hospital mortality). There were almost 20 000 fewer suicides in the period 1996–2005 compared with 1986–1995 (*111,112*). Other factors including civil war, unemployment, divorce, alcohol misuse, and actual levels of pesticide use were not associated with reduced suicide rates (*111*). Importantly, the pesticide bans were not associated with losses in agricultural output (*110*).

facilitated by the ready availability of pesticides in rural homes (*114*,*115*).

The WHO Initiative on the Impact of Pesticides on Health has identified a range of community interventions to encourage safer pesticide storage (116). These include:

- Providing locked boxes for storing pesticides in farming households;
- Encouraging centralized communal storage of pesticides; and
- Educating pesticide users about the health risks associated with pesticide use and about safe use, storage and disposal of pesticides.

The first two measures are discussed below. Until recently there have been few evaluations of the effectiveness of these measures on storage practices and pesticide poisoning, but these are now more numerous. To encourage the wider implementation and evaluation of safer storage and educational measures, WHO and the International Association for Suicide Prevention have published details about the activities needed to implement and evaluate these different interventions and have begun preparing demonstration studies (*116*,*117*).

4.2.1 Providing locked boxes for storing pesticides

Lockable storage boxes for families that use pesticides can help to reduce access to lethal means by improving users' home storage methods. Introduction of storage boxes should be accompanied by community and household education on the importance of safe pesticide storage, with instructions on how to use and maintain the box. Lockable storage boxes for pesticides have been provided in agricultural communities in Sri Lanka. A study exploring the impact of this scheme on storage practices found significant increases in safe pesticide storage: 82% of participating households reported storing pesticides at home in locked boxes seven months after the implementation of the scheme, compared with 2% at baseline. The proportion of households storing pesticides in fields, however, fell from 46% at baseline to 2% at follow-up, thereby increasing the storage of toxic pesticides in the home. This may have increased the risk of self-poisoning, if all boxes are not kept locked all of the time (*118*).

A separate study providing lockable storage boxes in Sri Lanka found similar high levels of use 30 weeks after the intervention. By 18 months, some reduction in use had occurred although 75% of participating households were still using the box. Although data on suicide and self-harm were collected by the authors, the relatively small study size prevented any conclusions from being drawn on the impact of the intervention on pesticide self-poisonings (*119*). Further studies on the impact of locked boxes on intentional poisonings and suicide are underway in Sri Lanka (*116*,*117*).

4.2.2 Encouraging centralized communal storage of pesticides

Creating centralized pesticide storage facilities in farming communities can heighten supervision of pesticide access. Communal storage facilities can operate at several different levels. At a low-level facility, centralized storage with secure lockers provides families with access to their own pesticides at any time. Higher level facilities may employ a responsible individual to manage families' access to their pesticide stocks: for example, providing the required amount of pesticide on a daily basis. Alternately, they may use a centralized purchasing and distribution system with one authorized individual managing pesticide access for a whole community. These arrangements demand appropriate selection and training of managers, so that the system operates in a fair manner and managers are able to provide sound advice to participants about pesticide safety.

Communal storage units can also provide for the safe disposal of unwanted pesticides and empty containers. There is currently no published evidence on the effectiveness of community pesticide storage systems, yet the WHO Initiative on the Impact of Pesticides on Health is supporting efforts to develop and evaluate demonstration projects (*117*). A key concern with this approach is its sustainability, however, as it relies on individuals agreeing to store their pesticides in a central location although this practice increases the time and effort required to spray fields.

5. Summary

This briefing has outlined evidence of the impacts on violence of a range of measures to reduce access to firearms, sharp objects and pesticides. Despite a lack of evidence in some areas, overall the findings are promising, suggesting that well-implemented measures to reduce access to lethal means can help to reduce violence. The vast majority of current evidence focuses on the use of national or local legislation to control the purchase, sale and use of lethal means. Here, several studies have shown that legislation which effectively controls access to lethal means can reduce both homicides (involving firearms) and suicides (firearms and pesticides). Nonetheless, even for firearms, which have been the focus of most research, more rigorous data and studies are required to develop understanding of the impacts of these measures (*34*).

Strengthening national legislation to reduce access to lethal means, even where this is possible, can be a lengthy and complex process. Much can be done at a local level, however, to enforce existing legislation, promote safer storage of lethal means and remove lethal weapons from civilian hands. Promising examples of community measures are to be found in both high-, middle- and low-income countries: e.g. safer pesticide storage in Sri Lanka, the Arms Free Municipalities project in El Salvador, the Boston Gun Project in the United States and Operation Blade in Scotland. Community programmes often combine measures to reduce access to lethal means with training (for pesticide users, police and others) and public awareness-raising. Designed and run by members of the community, they can also be tailored to local needs. Such projects, nonetheless, require sustained commitment at a local level, which can be difficult to maintain; so, the benefits can be short-lived. Further developing the evidence base on effective community measures with sustainable outcomes is, therefore, an essential step in reducing violence through lethal means.

Evaluating any interpersonal and self-directed violence prevention measure is difficult when data are limited. While this is a universal problem, it is most keenly felt in developing countries where evidence is most urgently needed on the effectiveness of measures to reduce access to lethal means. The development of robust injury data collection systems must, therefore, be a top priority.

Preventing access to lethal means requires broad partnership at all levels, beginning with strong commitment and support from both governing authorities and communities. Interventions to reduce access to lethal means focus mainly on controlling the lethal means themselves; but to prevent individuals simply finding another means of violence, these interventions must be part of broader measures to reduce poverty and social inequalities, shutdown illicit drug markets, reduce crime and ensure criminal justice systems are efficient, fair and seen to protect society from violence.

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violence prevention
the evidence

5.

Promoting gender equality to prevent violence against women

Overview

Promoting gender equality is a critical part of violence prevention.

The relationship between gender and violence is complex. Evidence suggests, however, that gender inequalities increase the risk of violence by men against women and inhibit the ability of those affected to seek protection. There are many forms of violence against women; this briefing focuses on violence by intimate partners, the most common form. Though further research is needed, evidence shows that school, community and media interventions can promote gender equality and prevent violence against women by challenging stereotypes that give men power over women.

School initiatives are well placed to prevent violence against women.

School-based programmes can address gender norms and attitudes before they become deeply engrained in children and youth. Such initiatives address gender norms, dating violence and sexual abuse among teenagers and young adults. Positive results have been reported for the Safe Dates programme in the United States of America and the Youth Relationship Project in Canada.

Community interventions can empower women and engage with men.

Community interventions can address gender norms and attitudes through, for example, the combination of microfinance schemes for women and methods that empower men as partners against gender-based violence. The strongest evidence is for the IMAGE microfinance and gender equity initiative in South Africa and the Stepping Stones programme in Africa and Asia. Community programmes with male peer groups show promise in changing attitudes towards traditional gender norms and violent behaviour, but they require more rigorous evaluations. Well-trained facilitators and community ownership appear to boost the effectiveness of these interventions.

Media interventions can alter gender norms and promote women's rights.

Public awareness campaigns and other interventions delivered via television, radio, newspapers and other mass media can be effective for altering attitudes towards gender norms. The most successful are those that seek to understand their target audience and engage with its members to develop content. We do not yet know, however, whether they actually reduce violence.

Programmes must engage males and females.

There is some evidence that microfinance schemes that empower women (without engaging with men) may actually cause friction and conflict between partners, especially in societies with rigid gender roles. Further research is needed to explore how such possible negative effects might be overcome.

1. Introduction

The relationship between gender and violence is complex. The different roles and behaviours of females and males, children as well as adults, are shaped and reinforced by gender norms within society. These are social expectations that define appropriate behaviour for women and men (e.g. in some societies, being male is associated with taking risks, being tough and aggressive and having multiple sexual partners). Differences in gender roles and behaviours often create inequalities, whereby one gender becomes empowered to the disadvantage of the other. Thus, in many societies, women are viewed as subordinate to men and have a lower social status, allowing men control over, and greater decision-making power than, women. Gender inequalities have a large and wide-ranging impact on society. For example, they can contribute to gender inequities in health and access to health care, opportunities for employment and promotion, levels of income, political participation and representation and education.

Often inequalities in gender increase the risk of acts of violence by men against women (see definitions, **Box 1**). For instance, traditional beliefs that men have a right to control women make women and girls vulnerable to physical, emotional and sexual violence by men (*1*,*2*). They also hinder the ability of those affected to remove themselves from abusive situations or seek support (*3*). Violence against women is most often perpetrated by an in-

BOX 1

Definitions

GENDER EQUALITY: Equal treatment of women and men in laws and policies, and equal access to resources and services within families, communities and society at large (*11*).

GENDER EQUITY: Fairness and justice in the distribution of benefits and responsibilities between women and men. Programmes and policies that specifically empower women are often needed to achieve this (*11*).

GENDER-BASED VIOLENCE: Violence involving men and women, in which the female is usually the victim; and which is derived from unequal power relationships between men and women. Violence is directed specifically against a woman because she is a woman, or affects women disproportionately. It includes, but is not limited to, physical, sexual and psychological harm (including intimidation, suffering, coercion, and/or deprivation of liberty within the family, or within the general community). It includes that violence which is perpetrated or condoned by the state (*13*). This widely accepted definition of gender-based violence is now often expanded to include violence that results from unequal power relations between men and between women (e.g. homophobic violence).

VIOLENCE AGAINST WOMEN: Any public or private act of gender-based violence that results in, or is likely to result in physical, sexual or psychological harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty (*14*).

INTIMATE PARTNER VIOLENCE: Any behaviour by a man or a woman within an intimate relationship that causes physical, sexual or psychological harm to those in the relationship. This is the most common form of violence against women.

BOX 2

Intimate partner violence

In a study of intimate partner violence across ten countries, the percentage of women reporting physical or sexual violence by their partners, or both, in their lifetime varied from 15% (in one city in Japan) to 71% (in a province of Ethiopia). The percentage of women reporting physical or sexual violence, or both, in the past year ranged from 4% (in cities in Japan, Montenegro and Serbia) to 54% (in a province of Ethiopia) (*15*).

timate partner, but it takes many other forms: violence by a family member, sexual harassment and abuse by authority figures, trafficking for prostitution, child marriages, dowry-related violence, honour killings, sexual violence committed by soldiers during wars and so on (*4*). Health consequences of such violence range from physical injuries and unwanted pregnancies to sexually transmitted infections (including HIV), emotional problems such as anxiety and depression and (in extreme cases) homicide or suicide (*3*,*5*,*6–10*).

For decades, therefore, promoting gender equality has been a critical part of violence prevention. This has included interventions that confront the entrenched beliefs and cultural norms from which gender inequalities develop, and efforts to engage all sectors of society in redressing these inequalities, both of which are thought to reduce gender-based violence. Despite the long history and high visibility of such measures, however, few have been subject to any kind of scientific evaluation.

This briefing reviews some of the most promising methods of promoting gender equality and their effectiveness in reducing violence towards women. There are many types of violence against women, but this briefing focuses specifically on interventions to prevent violence by intimate partners and during dating, as these have been evaluated more than other interventions in this area. These include:

- **School-based interventions**
  These work with school children before gender attitudes and behaviours are deeply ingrained. The most widely evaluated are dating interventions that attempt to create equal relationships and change attitudes and norms towards dating.
- **Community interventions**
  These try to effect change in individuals and whole communities, by addressing gender norms and attitudes. They can include methods to empower women economically and to enlist men as partners against gender-based violence.
- **Media interventions**
  Public awareness campaigns use mass media to challenge gender norms and attitudes and try to raise awareness throughout society of violent behaviour towards women and how to prevent it.

Government interventions to promote gender equality, such as laws and policies (see **Box 3**), can also play an important role in the primary prevention of violence. These are not discussed at length in this briefing, however, as there have been few evaluations of such measures.

BOX 3

Laws and policies to promote gender equality

The development of international and national legal frameworks that promote gender equality can play an important role in preventing violence against women. Internationally, a number of human rights agreements require states to take measures to eliminate gender-based violence against women (*15*). These include the Convention on the Elimination of All Forms of Discrimination Against Women; the International Covenant on Civil and Political Rights; and the International Covenant on Economic, Social and Cultural Rights. Significant changes are also underway worldwide to strengthen national laws and policies. Among them are laws that criminalize violence against women (e.g. intimate-partner violence, rape in marriage, trafficking for prostitution); laws and policies that support and protect those affected (e.g. implementing protection orders, child and family protection units, specialized response teams, women's shelters and family courts); improving the response of police and other criminal justice officials towards cases of violence against women; and improving women's rights in marriage, divorce, property ownership and inheritance and child support (*3*,*16*,*17*).

2. School-based interventions

School-based interventions attempt to address gender norms and equality early in life, before gender stereotypes become deeply ingrained in children and youth. A number of initiatives have been developed to address gender norms, dating violence and sexual abuse among teenagers and young adults (*18*). These target either male peer groups, or male and female youth together, and aim to increase knowledge of intimate partner violence, challenge gender stereotypes and norms and reduce levels of dating violence. Evaluations of these programmes suggest they can increase knowledge about dating violence and improve attitudes towards it; their effectiveness at reducing levels of actual abuse towards females appears promising, although it has not been consistently demonstrated and evaluations have largely focused on short-term outcomes (*18–21*).

Positive results have been reported, however, particularly for the Safe Dates programme in the United States and the Youth Relationship Project in Canada. Safe Dates is a school and community initiative that targets eighth and ninth grade girls and boys (13–15-years-old). It includes a ten-session educational curriculum, a theatre production, a poster contest, training for providers of community services and support services for affected adolescents. A randomized controlled trial of the programme found that (compared to members of a control group) participants reported less psychological abuse and sexual and physical violence against their current dating partner one month after the programme ended (*22*) and four years later (*23*).

Dating programmes are more effective if they are delivered in multiple sessions over time (rather than in a single session) and if they aim to change attitudes and norms rather than simply provide information (*30*). Furthermore, there is some evidence that for men, programmes presented to mixed male and female groups are less effective in changing attitudes than those presented to all-male groups (*31*). Although the majority of evaluated school programmes for dating violence have been conducted in the United States and other high-income countries, some initiatives are being implemented in developing countries. For instance, in South Africa, an adaptation of the Safe Dates programme for students in eighth grade (13–14-years-old) is now being evaluated. Furthermore, the Men As Partners programme (see Community interventions, below) has established groups for students in grades 5 to 8 (10–14-years-old). These encourage boys to stop domestic and sexual violence towards women and girls and to become responsible fathers (*32*). The programme, however, has yet to be evaluated.

The Youth Relationship Project in Ontario, Canada, is a community-based intervention to help at-risk 14–16-year-olds develop healthy, nonabusive relationships with dating partners by providing education about healthy and abusive relationships, conflict resolution and communication skills and social action activities. A randomized controlled trial showed that the intervention was effective in reducing incidents of physical and emotional abuse and symptoms of emotional distress over a 16-month period after the intervention (*24*).

Other programmes targeting both males and females have changed attitudes towards violence. For instance, in the United States, a five-session programme on dating violence for students in grades 9 to 12 (14–18-years-old) addressed how gender inequality fosters violence, challenged individual and societal attitudes towards violence as a means of conflict resolution, helped students develop non-violent communication skills and identified re-

sources to support victims of dating aggression. A well-designed evaluation found that the programme significantly lowered male and female participants' tolerance of dating violence (compared to members of a control group) (*25*).

Another programme in the United States, Mentors in Violence Prevention, provides six or seven two-hour educational sessions to male and female high-school and college students, in mixed or single-sex groups. Here the students learn about different types of abuse, gender stereotypes and society's acceptance of violence against women. In addition, role-playing helps participants to confront sexist attitudes and to actively prevent violence (26). An evaluation of the programme in ten schools examined the knowledge and attitudes of participants before and two to five months after the programme. This found that, compared to members of a control group, participants' knowledge of violence against women significantly increased after the programme. The study also indicated that the programme improved participants' attitudes towards violence against women and gave them greater confidence to intervene or speak out against it (*27*).

Initiatives that work solely with male peer groups have also been shown to change violence-related attitudes in the short term – particularly towards sexual violence – and to promote new ideas of masculinity based on non-violence and respect for women. In the United States, for example, university undergraduates participated in a one-hour programme led by four male peer educators. This included a video that described a situation leading to rape, and taught basic skills for helping a woman recover from rape, communicating openly in sexual encounters and challenging the societal normalization of rape. A randomized controlled evaluation found that, immediately after the programme, levels of acceptance of rape-myths and the likelihood of raping (measured by a behavioural question) were significantly lower for participants than before the programme – and no such changes were reported in the control group. A follow-up study at seven months indicated that the beneficial changes were enduring; however, no changes were found in levels of sexual coercion before and after the intervention (*28*).

In a related initiative, The Men's Program, a video was shown to male undergraduates describing a homosexual, male-on-male, rape to teach the students how it might feel to be raped. The video also made connections with male-on-female rape to encourage empathy for survivors. In addition, participants were taught how to support rape victims and confront peers who joked or boasted about raping women. An evaluation of this approach randomly assigned participants to one of two additional training modules that dealt with either bystander intervention in situations involving alcohol where there is a danger of rape, or defining consent in situations involving alcohol. A randomized controlled trial found that in both treatment groups, participants were significantly less likely (than members of the control group) to accept myths about rape or commit sexual assault or rape (*29*).

3. Community interventions

Community interventions to reduce gender equality usually attempt to empower women, strengthen their economic position (through, for instance, microfinance schemes) and change gender stereotypes and norms (*17*,*30*,*33*,*34*). These programmes have mainly been implemented in developing countries. Although most programmes involve women (alone or with men), some community programmes work solely with male peer groups focusing on masculinity, gender norms and violence. This reflects a growing awareness of the importance of engaging men and boys in interventions, not only to redefine concepts of masculinity based on dominance and control, but also to engage them in stopping violence against women. Community interventions aim to change not just the way individuals think and behave, but also to mobilize entire villages or districts in efforts to eradicate violence against women.

3.1 Microfinance

A number of initiatives involving micro-finance have been established to increase women's economic and social power. These provide small loans to mobilize resources for income-generating projects, which can alleviate poverty. While microfinance programmes can operate as discrete entities, successful ones tend to incorporate education sessions and skills-building workshops to help change gender norms, improve communication in relationships and empower women in other ways (*35*).

One of the most rigorously evaluated and successful programmes is South Africa's Intervention with Microfinance for AIDS and Gender Equity (IMAGE). This targets women living in the poorest households in rural areas, and combines financial services with training and skills-building sessions on HIV prevention, gender norms, cultural beliefs, communication and intimate partner violence (*36*–*38*). The programme also encourages wider community participation to engage men and boys. It aims to improve women's employment opportunities, increase their influence in household decisions and ability to resolve marital conflicts, strengthen their social networks and reduce HIV transmission.

A randomized controlled trial found that, two years after completing the programme, participants reported 55% fewer acts of violence by their intimate partners in the previous 12 months than did members of a control group (*37*). Compared with controls, these women reported fewer experiences of controlling behaviour by their partners (34% of participants versus 42% of those in the control group), despite having suffered higher levels of this behaviour than members of the control group before entering the programme. In addition, participants were more likely to disagree with statements that condone physical and sexual violence towards an intimate partner (52% of participants versus 36% of the control group) (*37*). Furthermore, a higher percentage of women in the programme reported household communication about sexual matters and attitudes that challenged gender roles. The programme did not, however, have an effect on either women's rate of unprotected sexual intercourse at last occurrence with a non-spousal partner or HIV incidence (*37*).

Other stand-alone credit programmes targeting women appear to show promise in reducing intimate partner violence. These include Grameen Bank and Bangladesh Rural Advancement Committee (BRAC) Rural Development programmes[1] in Bangladesh.

[1] The Grameen Bank and the BRAC Rural Development Programme are the two largest non-governmental credit programmes in Bangladesh. Participants are organized into small solidarity groups which share responsibility for repayment.

Here, women participants were interviewed retrospectively and asked if the programme had changed their experience of intimate partner violence. Their answers revealed that they were less than half as likely to have been beaten by their partners in the previous year as women living in villages with no exposure to such programmes (39). Women were protected from intimate partner violence through their ability to bring home a resource that benefited their partners, which improved their status in the household. Since participation allowed the women greater contact with others outside the home, their lives (and, therefore, experience of intimate partner violence) also became more visible. These programmes also showed benefits for the entire community. Levels of intimate partner violence among non-participating women living in villages where credit programmes had been implemented were about 30% lower than among non-participating women in villages with no credit programmes.

The promise of these programmes is tempered, however, by reports of lenders exploiting disadvantaged borrowers with very high rates of interest – which can trap people in debt and contribute further to poverty (*40*) – and of increases in intimate partner violence (*41*). Disagreements over the control of newly acquired assets and earnings, combined with women's changing attitudes towards traditional gender roles, improved social support and greater confidence to defend themselves against male authority, sometimes led to marital conflicts and violence against women perpetrated by their partners (39). Increases in violence following participation in credit programmes have also been reported elsewhere (*42*), at least in the initial stages of membership (*43*).

These negative outcomes may be explained by differences between the Grameen and BRAC credit programmes and South Africa's IMAGE intervention, described above. IMAGE includes education and skills-building sessions that address a variety of social issues and engage men and boys. The Grameen and BRAC programmes do not, however, include such educational and skills-building sessions (except for self-employment, often a year after membership). Furthermore, these programmes are solely for women. Pre-existing gender roles appear to affect the violence-related outcomes of credit programmes: in communities with rigid gender roles, women's involvement can result in increased levels of intimate partner violence, but not in those with more flexible gender roles (*44*). Through education and skills-building, and engagement with boys and men, IMAGE has the potential to change the attitudes of whole communities, making them more receptive to female empowerment, without a backlash.

3.2 Challenging gender norms and attitudes

Other community programmes challenge gender norms and attitudes that justify intimate partner violence. The most widely established and rigorously evaluated is the Stepping Stones programme, a life-skills training intervention developed for HIV prevention, which has been implemented in Africa and Asia. Using a variety of methods, including reflection on one's attitudes and behaviour, role-play and drama, it addresses issues such as gender-based violence, communication about HIV, relationship skills and assertiveness. Thirteen three-hour sessions are run in parallel for single-sex groups of women and men. These are complemented by mixed peer group and community meetings. Stepping Stones is designed to improve sexual health by developing stronger, more equal relationships between those of different gender. Versions of the programme have been evaluated in a variety of countries (*45*); however, the most thorough study is a randomized controlled trial in the Eastern Cape province of South Africa, with participants aged 15–26 years-old. This indicated that a lower proportion of the men who had participated in the programme committed physical or sexual intimate partner violence in the two years after the programme, compared with the men in a control group (*46*). Furthermore, a qualitative evaluation in Gambia that followed participating couples over one year found that, compared to couples in a control group, they communicated better and quarrelled less, and that the men were more accepting of a wife's refusal to have sex and less likely to beat her (*47*).

In Uganda, Raising Voices and the Centre for Domestic Violence Prevention run a community initiative for males and females, designed to challenge gender norms and prevent violence against women and children (*48*). This includes raising awareness of domestic violence and building networks of support and action within the community and professional sectors; community activities such as theatre, discussions and door-to-door visits; and using radio, television and newspapers to promote women's rights. A review of the programme after two years suggested that all forms of intimate partner violence had decreased in the community (*48*). However, 8% of women and 18 % of men reported

BOX 4

Nicaraguan backlash shows need to engage men, as well

During the last decade, Nicaragua has pioneered a number of initiatives to protect women against domestic violence. These have included:

- A network of police stations for women (Comisaria de la Mujer), where women who have been abused receive psychological, social and legal support;
- A ministry for family affairs (Mi Familia), which among other responsibilities, ensures that shelter is available to women and children who suffer domestic violence;
- Reform of the national reproductive health programme to address gender and sexual abuse.

At the same time civil society groups have campaigned to promote the rights of women and to empower them to oppose domestic abuse. Despite these efforts, the reported number of acts of domestic and sexual violence against women has increased dramatically: e.g. reports of sexual abuse received by the Comisaria de la Mujer rose from 4174 (January–June 2003) to 8376 (January–June 2004).

Researchers at the Universidad Centro Americana and the Institute for Gender Studies say two factors explain this increase: better reporting of cases, as women are now encouraged to speak out; and the growing awareness among women that cultural traditions that foster violence are no longer acceptable under international law. In turn, as Nicaraguan women have more actively opposed male hegemony, domestic conflicts have increased and more men have resorted to domestic violence.

These findings suggest responses to domestic violence must not focus exclusively on women, but must also target men to prevent a backlash (*49*).

an increase in physical violence against women following the introduction of the programme. This backlash was attributed to men feeling threatened by the empowerment of women (see **Box 4**).

A number of programmes work specifically with male peer groups, addressing values and attitudes associated with violence against women, redefining concepts of masculinity and engaging men in violence prevention. In general, however, few rigorous evaluations have assessed the impact of these programmes on violence. In Africa, Asia, Latin America and the United States, Men As Partners provides education and skills-building workshops for men to explore their attitudes regarding sexuality and gender and promote gender equality in relationships (*50*). The project provides enhanced health-care facilities for men, leads local and national public education campaigns and advocates for change at national and international levels. A review of a five-day workshop in South Africa reported some positive results, although it was not an independent study, and it failed to include a control group for comparison. Nonetheless, changes in gender attitudes were reported among the men attending and completing a survey (67% of those attending completed a survey). For instance, 54% of men *disagreed* with the statement that "men must make all the decisions in a relationship" in a pre-training interview, compared with 75% three months later. Similarly, 61% of men *disagreed* that "women who dress sexy want to be raped" before training, compared with 82% three months later (*50*).

Another intervention that uses male peer groups is Brazil's Program H. This fosters healthy relationships and aims to prevent HIV and other sexually transmitted infections. Program H has two main components: educational sessions (with video, role-playing and discussions) lasting two hours per week for six months to promote changes in attitude and behaviour; and a social marketing campaign to promote changes in norms of masculinity and lifestyles. An evaluation among 14–25-year-old males compared three communities: the first received the Program H educational component, the second received the educational component plus the social marketing campaign and the third (control group) received no intervention. Compared to the control community, at six months, participants in the two communities that received one or both of the interventions were less likely to support traditional gender norms than before the intervention (*51*).

India has also tested a version of Program H, with the same design and time frame as in Brazil. An evaluation found that it encouraged male participants to question traditional gender norms. Additionally, the proportion of men in the Indian programme reporting violence against a partner in the previous three months declined significantly in

the intervention groups, compared to the control group (*52*).

While evaluations of community interventions indicate that they may help in reducing violence and changing gender attitudes and norms (*17*,*30*,*33*,*34*), more scientific evaluation studies are needed, particularly for programmes focusing on male peer groups. Community interventions are more effective when facilitators are well-trained and have won the trust of a community. Their success is also linked to communities taking ownership of interventions, the concurrent use of a variety of methods and activities (*30*), adequate and sustained funding and the support of high-level political decision-makers.

4. Media interventions

Media interventions use television, radio, newspapers, magazines and other printed publications to reach a wide range of people and effect change within society. They aim to increase knowledge, challenge attitudes and modify behaviour. Media interventions can also alter social norms and values (e.g. the belief that masculinity is associated with aggression) through public discussion and social interaction. Media campaigns have proven successful in increasing knowledge of intimate partner violence and influencing attitudes towards gender norms, but less is known about their ability to reduce violent behaviour, as it is difficult to measure potential changes in levels of violence associated with media interventions (*21*,*30*,*33*,*53*). Research shows, however, that the most successful media interventions are those that begin by understanding the behaviour of their audience and engaging its members in developing the intervention (*30*).

One of the best-known and most carefully evaluated media programmes is Soul City in South Africa (*54*). This uses a series of radio and television episodes to highlight intimate partner violence, date rape and sexual harassment, among other social problems. The series is accompanied by information booklets that are distributed nationally. An evaluation of the fourth series, which focused on gender-based violence, used a random sample of the national population and conducted two sets of interviews, eight months apart: before and after the intervention. The study reported an association between exposure to the Soul City series and changes in knowledge and attitudes towards intimate partner violence (*55*). For instance, at follow-up, the percentage of people *agreeing* with the statement "no woman ever deserves to be beaten" had increased from 77% to 88%, while the percentage *disagreeing* with the assertion "women who are abused are expected to put up with it" had increased from 68% to 72%. However, there were no significant changes reported in other attitudes such as "as head of household, a man has the right to beat his wife" (*55*) and the study design was not able to establish if there was an impact on violent behaviour.

In Nicaragua, a mass communication strategy named *Somos Diferentes, Somos Iguales* (We are different, We are equal) has promoted social change to improve sexual and reproductive health. The strategy aimed to empower women and young people to take control of their lives and to promote women's rights and gender equality. Activities included a national television series (*Sexto Sentido*, or Sixth Sense), a radio talk show for youth and community activities such as training workshops for young people and youth leadership camps. The television series was a weekly drama with issue-based storylines that was broadcast in Nicaragua, other Central American countries and the United States. Using a sample of Nicaraguan youth (13–24-years-old), an evaluation found that the strategy was associated with a positive change in attitudes towards gender equity, among those exposed to it. However, the study lacked a control group for comparative purposes and did not measure changes in levels of violence towards women (*56*).

A number of campaigns have targeted men specifically, aiming to challenge traditional concepts of masculinity associated with violence. Evaluations of these have not, however, looked at their effect on violence. For instance, a 2001 Australian campaign known as Violence against Women–It's Against All the Rules targeted 21–29-year-old men. Sports celebrities delivered the message that violence towards women is unacceptable and that a

masculine man is not a violent man (*57*). Similarly, in the United States, Men Can Stop Rape runs a public education campaign for men and boys with the message "My strength is not for hurting". The campaign materials highlight how men can be strong without overpowering others and aim to redefine masculinity (*58*). Internationally, the White Ribbon campaign engages men and boys in work to end violence against women. This educational initiative raises awareness about violence against women and challenges men to speak out against it. Supporters wear a white ribbon, symbolizing their promise never to commit, condone or remain silent about violence towards women (*59*).

Many other public information campaigns promote gender equality and raise awareness about intimate partner violence, though few have been evaluated. These campaigns can be useful for advocating for the implementation of laws and policies that contribute to gender equality (see **Box 3**). International campaigns include:

- 16 Days of Activism to End Gender Violence: This annual campaign, established by the Center for Women's Global Leadership in 1991, has engaged organizations in more than 130 countries. Activities include raising awareness about violence as a human rights issue, strengthening local work around violence against women and pressuring governments to make changes needed to eliminate violence (http://www.unfpa.org/16days/);
- UNITE to End Violence Against Women: Launched by the UN Secretary-General in February 2008, this aims to raise public awareness and increase political will and resources for preventing and responding to violence against women and girls (http://endviolence.un.org);
- Say NO to Violence Against Women: Run by the United Nations Development Fund for Women, this advocates for the right of every woman to lead a life free of violence (http://www.unifem.org/campaigns/vaw/); and
- Stop Violence Against Women: Launched in 2004 by Amnesty International, this advocates for equal rights for women and children, urging governments to abolish laws and practices that perpetuate violence against women and adopt policies that protect women (http://www.amnesty.org/en/campaigns/stop-violence-against-women).

5. Summary

The promotion of gender equality is an essential part of violence prevention. A range of school, community and media interventions aim to promote gender equality and non-violent relationships by addressing gender stereotypes that allow men more power and control over women or that associate masculinity with aggression and violence. These include some well-evaluated interventions, but more evaluations are needed that use measures of actual violent behaviour as an outcome rather than improvements in attitude or knowledge, whose relation to violent behaviour may be unknown.

Some school-based programmes have demonstrated their effectiveness. With the exception of the Safe Dates programme and the Youth Relationship Project, however, evaluations of these have looked at short-term outcomes and more research is needed on their long-term effects. School programmes are well placed to prevent violence against women, since they have the potential to address gender norms and attitudes before they become deeply ingrained. They are also ideal environments to work with male peer groups, where rigid ideas about masculinity can be questioned and redefined. Among community interventions, the IMAGE and Stepping Stones programmes are supported by the strongest evidence. Community programmes with male peer groups show promise in changing attitudes towards traditional gender norms, as well as violent behaviour, but they require more rigorous outcome evaluations. Finally, media interventions, such as Soul City in South Africa, appear to be effective at addressing attitudes towards gender norms and women's rights that may influence violent behaviour. However, we do not yet know whether they actually reduce violent behaviour.

There is evidence that the success of some microfinance programmes in empowering women (without engaging with men) may actually cause friction and conflict between partners, especially in societies with rigid gender roles (*44*). Further research is needed to explore how such possible negative effects might be overcome. When gender roles become more flexible, most women enjoy greater power, status and economic independence and the threat of violence against them decreases (*60*). It is important, therefore, to engage both men and women and boys and girls in interventions that promote gender equality and prevent violence against women.

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violence prevention
the evidence

6.

Changing cultural and social norms that support violence

Overview

Cultural and social norms can encourage violence.

Rules or expectations of behaviour – norms – within a cultural or social group can encourage violence. Interventions that challenge cultural and social norms supportive of violence can prevent acts of violence and have been widely used. This briefing describes how cultural and social norms can support violence, gives examples of interventions that aim to alter such norms, and identifies the main challenges to rigorously evaluating such interventions.

Interventions often target intimate partner and youth violence.

Some aim to reduce dating violence and sexual abuse among teenagers and young adults by challenging attitudes and norms related to gender that, for instance, allow men control over women. Many work with male peer groups, acknowledging the strong influence that young adults can have on each others' behaviour. A common approach aims to correct misperceptions that people may have of the attitudes and behaviour of others. Mass media campaigns, including education through entertainment (*edutainment*), have also been used to challenge norms supportive of violence.

Laws and policies can assist in altering norms linked to violence.

Laws and policies that make violent behaviour an offence send a message to society that it is not acceptable. While nearly all governments around the world have laws against most forms of homicide, recently more governments have begun to enact and implement laws against non-lethal intimate partner violence.

More rigorous evaluations of interventions that address social norms are needed.

Studies that evaluate the effectiveness of interventions that challenge norms supportive of violence are rare. Rigorous evaluations of such interventions are feasible, but they face a number of challenges, including clearly isolating the effects of the interventions from possible confounding factors and poor understanding of the mechanisms underlying changes in cultural and social norms.

1. Introduction

Cultural and social norms are highly influential in shaping individual behaviour, including the use of violence. Norms can protect against violence, but they can also support and encourage the use of it. For instance, cultural acceptance of violence, either as a normal method of resolving conflict or as a usual part of rearing a child, is a risk factor for all types of interpersonal violence (*1*). It may also help explain why countries experiencing high levels of one type of violence also experience increased levels of other types (*2*). Social tolerance of violent behaviour is likely learned in childhood, through the use of corporal punishment (*2*) or witnessing violence in the family (*3*,*4*), in the media (*5*) or in other settings.

Interventions that challenge cultural and social norms supportive of violence can help reduce and prevent violent behaviour. Although widely used, they have rarely been evaluated. Given the current weak evidence base, it is premature to review their effectiveness. The aim of this briefing, therefore, is to encourage increased efforts to implement and evaluate well-designed interventions that challenge cultural and social norms which support violence. Accordingly, this briefing:

- Defines cultural and social norms and illustrates how they support violence;
- Provides examples of interventions that seek to alter these norms; and
- Identifies the main challenges faced by evaluations of the effectiveness of such interventions.

2. Cultural and social norms that support violence

Cultural and social norms are rules or expectations of behaviour within a specific cultural or social group. Often unspoken, these norms offer social standards of appropriate and inappropriate behaviour, governing what is (and is not) acceptable and co-ordinating our interactions with others (*6*). Cultural and social norms persist within society because of individuals' preference to conform, given the expectation that others will also conform (*7*). A variety of external and internal pressures are thought to maintain cultural and social norms (*6*). Thus, individuals are discouraged from violating norms by the threat of social disapproval or punishment and feelings of guilt and shame that result from the internalization of norms.

Cultural and social norms do not necessarily correspond with an individual's attitudes (positive or negative feelings towards an object or idea) and beliefs (perceptions that certain premises are true), although they may influence these attitudes and beliefs if norms becomes internalized. Cultural and social norms also vary widely; so, behaviour acceptable to one social group, gang or culture may not be tolerated in another.

Different cultural and social norms support different types of violence, as illustrated in **Box 1**. For instance, traditional beliefs that men have a right to control or discipline women through physical means makes women vulnerable to violence by intimate partners (*8*,*9*) and places girls at risk of sexual abuse (*10*). Equally, cultural acceptance of violence, including sexual violence, as a private affair hinders outside intervention and prevents those affected from speaking out and gaining support (*11*). In many societies, victims of sexual violence also feel stigmatized, which inhibits reporting (*12*).

Additionally, strong evidence of an association between alcohol consumption and violent behaviour means that cultural and social norms around alcohol use and its expected effects can also encourage and justify violent acts. In a number of countries, harmful alcohol use is estimated to be responsible for 26% of male and 16% of female disability-adjusted life-years (DALYs[1]) lost as a result of homicide (*13*). Societies that tolerate higher rates of acute alcohol intoxication report stronger relationships between alcohol use and violence than those where drinking occurs more moderately (*14*). Furthermore, alcohol-related violence is considered more likely in cultures where many believe that alcohol plays a positive role by helping people to shed their inhibitions (*15*). Here, alcohol can be used as a justification for violent behaviour, or consumed to fuel the courage needed to commit violent crimes. Interventions that tackle the cultural and social norms underlying risky drinking behaviour and social expectations surrounding alcohol can help in preventing violence (*16*,*17*). For more information on the relationship between alcohol and violence, see the briefing in this series on preventing violence by reducing the availability and misuse of alcohol.

[1] A DALY is a measure of the impact of illness, disability and mortality on population health.

BOX 1

Cultural and social norms supporting different types of violence

Child maltreatment

- Female children are valued less in society than males (e.g. Peru [*18*], where female children are considered to have less social and economic potential).
- Children have a low status in society and within the family (e.g. Guatemala [*19*]).
- Physical punishment is an acceptable or normal part of rearing a child (e.g. Turkey [*20*], Ethiopia [*21*]).
- Communities adhere to harmful traditional cultural practices such as genital mutilation (e.g. Nigeria [*22*], Sudan [*23*]) or child marriage (*24*).

Intimate partner violence

- A man has a right to assert power over a woman and is socially superior (e.g. India [*8*], Nigeria [*9*], Ghana [*25*]).
- A man has a right to "correct" or discipline female behaviour (e.g. India [*26*], Nigeria [*27*], China [*28*]).
- A woman's freedom should be restricted (e.g. Pakistan [*29*]).
- Physical violence is an acceptable way to resolve conflicts within a relationship (e.g. South Africa [*30*], China [28]).
- A woman is responsible for making a marriage work (e.g. Israel [*31*]).
- Intimate partner violence is a taboo subject (e.g. South Africa [*32*]) and reporting abuse is disrespectful (Nigeria [*9*]).
- Divorce is shameful (e.g. Pakistan [*11*]).
- When a dowry (financial payment from the bride's family to the husband) or bridewealth (financial payment from the husband to the bride's family) is an expected part of marriage (e.g. Nigeria [*27*], India [*33*]), violence can occur either because financial demands are not met, or because bridewealth becomes synonymous with purchasing and thus owning a wife.
- A man's honour is linked to a woman's sexual behaviour. Here, any deviation from sexual norms disgraces the entire family, which can then lead to honour killings (e.g. Jordan [*34*,*35*]).

Suicide and self-harm

- Mental health problems are embarrassing and shameful, deterring individuals from seeking help (e.g. Australia [*36*], Brazil [*37*]).
- Individuals in different social groups within society are not tolerated – e.g. homosexuals (Japan [*38*]).

Sexual violence

- Sex is a man's right in marriage (e.g. Pakistan [*11*]).
- Girls are responsible for controlling a man's sexual urges (e.g. South Africa [*10*,*39*]).
- Sexual violence is an acceptable way of putting women in their place or punishing them (e.g. South Africa [*10*]).
- Sexual activity (including rape) is a marker of masculinity (e.g. South Africa [*39*]).
- Sex and sexuality are taboo subjects (e.g. Pakistan [*11*]).
- Sexual violence such as rape is shameful for the victim, which prevents disclosure (e.g. the United States [*12*]).

Youth violence

- Reporting youth violence or bullying is unacceptable (the United Kingdom [*40*]).
- Violence is an acceptable way of resolving conflict (the United States of America [*41*]).

Community violence

- Cultural intolerance, intense dislike and stereotyping of "different" groups within society (e.g. nationalities, ethnicities, homosexuals) can contribute to violent or aggressive behaviour towards others (e.g. xenophobic or racist violence [*42*] and homophobic violence [*43*]).

3. Challenging norms supportive of violence: examples of interventions

Interventions that challenge cultural and social norms supportive of violence are often integrated with other approaches. The examples described here, however, are limited to those interventions which exclusively or primarily aim to change cultural and social norms to prevent violence. Although not all of them have been evaluated, these examples are presented to help gain a better understanding of this approach to violence prevention. **Box 2** sets out the concepts behind the *social norms approach*, one of the more prominent frameworks for such interventions. A particular challenge for any intervention addressing cultural or social norms is accommodating groups with different norms from the broader population. Interventions often need to be tailored to these sub-groups, rather than addressing the population as a whole.

3.1 Intimate partner and sexual violence

In the United States and other developed countries, initiatives have been developed to reduce dating violence and sexual abuse among teenagers and young adults that incorporate components to change cultural and social norms. These norms include gender stereotypes, beliefs about masculinity and aggression or violence and ideas that violence within an intimate or dating relationship is normal. Some initiatives deal specifically with male peer groups, for example, Men of Strength clubs (*44*); others target both men and women, for example, Men Against Violence (*45*) and Mentors in Violence Prevention (*46*). Such programmes acknowledge the strong influence that young adults can have on each others' behaviour and the social pressures of masculinity that equate male power and status with violence. By raising awareness of dating violence and reinforcing shared norms supportive of non-violent behaviour, they encourage the role of young adults as allies or protectors of their peers against dating and sexual violence. Furthermore, it is assumed that by challenging and intervening in violent acts, young people will indicate to their peers that such behaviour

BOX 2

Social norms approach

The social norms approach to health promotion assumes that people have mistaken perceptions of the attitudes and behaviour of others. Prevalence of risky behaviour (e.g. heavy alcohol use and tolerance of violent behaviour) is usually overestimated, while protective behaviours are normally underestimated. This affects individual behaviour in two ways: by justifying and increasing the prevalence of risky behaviour, and by increasing the likelihood of an individual remaining silent about any discomfort caused by such behaviour (thereby reinforcing social tolerance of it). The social norms approach seeks to correct these misperceptions by giving people a more realistic sense of actual behavioural norms, thereby reducing risky behaviour. The theory has been applied widely in the United States to reduce excessive drinking among college students and has been associated with decreased alcohol misuse and smoking (*47,48*). Social norms approaches have also reported some success in changing the attitudes of male peer groups towards risky sexual behaviours (see section on intimate partner and sexual violence). Misperceptions about attitudes towards violent behaviour have also been documented for bullying (*49*), suggesting that social norms approaches could reduce this form of violence.

is unacceptable. Unfortunately, the effectiveness of these programmes for preventing violent behaviour has yet to be well evaluated.

The social norms approach, described in **Box 2**, has been used to address sexual violence among college students in the United States. Among these students, men are thought to underestimate the importance that most men and women place on sexual consent, and the willingness of most men to intervene against sexual assault (*50*). Although evidence is limited, some positive results have been reported. For instance, in one university, a project named A Man Respects a Woman aimed to reduce sexual assaults against women, increase accurate perceptions of non-coercive sexual behaviour norms and reduce self-reported coercive behaviours by men. The project used a social norms marketing campaign targeting men, a theatre presentation addressing socialization and male peer-to-peer education to convey the following positive findings of a student survey:

- A man respects a woman: nine out of ten men stop the first time their date says "no" to sexual activity;
- A man always prevents manipulation: three out of four men think it is not acceptable to pressure a date to drink alcohol to improve their chances of getting their date to have sex;
- A man talks before romance: most men believe talking about sex does not ruin the romance of the moment, and it can confirm that you have consent.

For the social marketing campaign, posters and flyers were designed by and pre-tested with students at the university, to ensure the messages would receive positive responses. Evaluation of the campaign two years after implementation found that men had become more accurate in their perceptions of other men's behaviour and reported more positive behaviour and attitudes themselves. For instance, proportionately fewer men believed that the average male student has sex when his partner is intoxicated; will not stop sexual activity when asked to if he is already sexually aroused; and, when wanting to touch someone sexually, tries and sees how his date reacts. The evaluation found, however, an increase in the proportion of men indicating they have sex when their partner is intoxicated (*51*).

University campaigns in the United States have also highlighted the role of bystanders in preventing sexually abusive acts – an alternative to targeting perpetrators or victims of violence. These campaigns address norms that support or tolerate coercion within relationships and encourage both males and females to speak out against sexual abuse and to help those in trouble. For instance, a poster campaign at one university used this message: "Know your power. Step in, speak up. You can make a difference". A series of posters was widely displayed for four weeks on campus and nearby, depicting different scenarios: for instance, a man leading a drunk woman upstairs at a house party. Each poster also showed safe bystander behaviour to intervene and prevent sexual abuse: for instance, friends planning to stop the man from taking the woman upstairs. Although there was no baseline test for comparison, an evaluation of the campaign reported that participants who saw the posters exhibited greater awareness of sexual assault, and greater willingness to participate in actions aimed at reducing sexual violence, compared to those who did not see the posters (*52*).

In Western Australia, the Freedom from Fear campaign targeted male perpetrators (and potential perpetrators) of domestic violence. Preliminary research with male perpetrators found that campaign messages such as "real men don't hit women" and "your mates will reject you", or those highlighting the consequences of domestic violence on their partner, would be ineffective. However, those that conveyed the damaging effect that intimate partner violence had on their children were found to be powerful, and were consequently given prominence in the campaign. The messages called upon men to accept responsibility for their behaviour and take action to end the abuse (*53*). It used television, radio and other media, and was accompanied by a helpline for men to receive counselling, advice and information. Evaluation of the campaign five years after implementation found a smaller proportion of men reporting emotional abuse of their partners than before the campaign. Furthermore, there was a significant reduction in the proportion of women who reported "being yelled at" and "being threatened with being hit" (*54*).

Another promising campaign, Choose Respect, is a national initiative developed by the United States Centers for Disease Control and Prevention to address cultural and social norms governing relationships and partner violence. It aims to motivate adolescents to challenge harmful beliefs about dating abuse and take steps to form healthy, respectful relationships and prevent dating abuse before it starts. Research to inform the initiative showed

most adolescents have positive, healthy attitudes about their relationships with others. Choose Respect seeks to reinforce and sustain these positive attitudes among adolescents as they get older and begin to enter dating relationships by:

- Encouraging adolescents, parents, caregivers and teachers to choose to treat themselves and others with respect;
- Creating opportunities for adolescents and parents to learn positive forms of behaviour for relationships;
- Increasing adolescents' ability to recognize and prevent unhealthy, violent relationships; and
- Promoting ways for a variety of audiences to get information and other tools to prevent dating abuse.

Choose Respect targets 11 to 14-years-olds, an age group whose members are still forming attitudes and beliefs that will affect how they are treated and treat others. The initiative also engages parents, teachers, youth leaders and other caregivers who influence the lives of young teens. Its messages are disseminated via materials such as electronic postcards (eCards), posters, bookmarks, pocket guides, online games and quizzes, television and radio spots and activities that encourage youth to choose respect. Launched nationally in May 2006, Choose Respect was implemented as an integrated communications effort in ten major cities in the United States (*55*).

To highlight social issues, including intimate partner violence, date rape and sexual harassment, Soul City in South Africa used television (through a soap opera series), radio and printed materials (i.e. edutainment, see **Box 3**). The series was accompanied by information booklets that were distributed nationally. An evaluation of the fourth series, which focused on intimate partner violence, used a random sample of the national population and conducted interviews before and after the intervention (eight month interval). Participants reported a decrease in their acceptance of intimate partner violence and an increase in the belief that communities can play a role in preventing intimate partner violence following the series. For instance, there was an increase from baseline to evaluation eight months later in the belief that "my community feels that violence between a man and a woman is not a private affair". The intervention was thought to facilitate community co-operation, public discussion and action on intimate partner violence. While the evaluation did not include measurements of violent behaviour, there were some positive changes in attitudes towards intimate partner violence. For instance, the number of people *agreeing* with the statement "no woman ever deserves to be beaten" increased, as did the percentage *disagreeing* with the assertion "women who are abused are expected to put up with it" (*56*). While it is not known whether these changes would have occurred without the intervention (there was no comparison group), higher exposure to the intervention was associated with more positive attitudinal changes.

Another programme that used *edutainment* is Nicaragua's *Somos Diferentes, Somos Iguales* (We are Different, We are Equal), which aimed primarily to prevent HIV infection. The programme also addressed related topics such as gender-based violence, aiming to empower women and young people and to promote women's rights and gender equality. It used a national weekly soap opera television series (*Sexto Sentido* [Sixth Sense]); a nightly radio talk show, in which callers could discuss the issues raised by the television series; and community-based activities such as youth leadership training. An evaluation of the project used a sample of 13–24-year-old Nicaraguan youths and surveyed them over a period of two years. Although there was no comparison group, exposure to the programme was associated with greater acceptance of gender equality as a social norm (*57*). The study did not measure changes in violent behaviour.

3.2 Youth violence

In the United States, an anti-violence intervention called Resolve It, Solve It consisted of a community media campaign for youths from small towns, led by high-school students who served as peer models (*58*). Students helped develop campaign media such as professionally printed materials and radio and television advertisements with three key themes: respect for individual differences, conflict resolution and prevention of bullying. The campaign ran for a year and included presentations to school children in classrooms and assemblies, and inclusion of a wider audience via community events. A randomized controlled trial of the campaign conducted in communities in five different states showed mixed results. A few months after the intervention, students reported a greater decline in their use of physical violence compared to controls, but there were no differences in their use of verbal aggression. Additionally, compared to controls, participants reported a larger decline in

BOX 3

Mass media interventions

Mass media campaigns convey messages about healthy behaviour to broad populations via television, radio, the Internet, newspapers, magazines and other printed materials. They increase the amount of information available on a topic and may reduce undesirable behaviour. Media campaigns use different strategies to change cultural and social norms. For instance, they can provide information to correct misperceptions about norms (social norms approach, **Box 2**), or attach a social stigma to unwanted behaviour. While campaigns usually focus on the negative consequences of violence, they may also make positive appeals – for example, promoting parenting styles that contribute to a happier family life (*59*).

Mass media approaches help to keep health issues on social and political agendas, legitimize community interventions and act as a catalyst for other initiatives (*60*). While they intend to modify individual behaviour directly through informative messages, media campaigns can also affect behaviour indirectly by stimulating changes in perceptions of social or cultural norms through social interaction (*60*). Here, a change in perception of norms provides additional motivation for a change in individual behaviour (*61*). Some mass media approaches use education entertainment methods (*edutainment*), which seek to impart knowledge and bring about social change through television soap operas and other popular forms of entertainment. By achieving strong audience identification with television characters who are positive role models, edutainment can contribute to help improve cultural and social norms.

Mass media campaigns have been successfully employed to address a wide range of health attitudes and behaviour (*62*), such as eating healthily and exercising (*63*), stopping smoking (*64*), practising safe sex (*65*), reducing alcohol consumption (*66*) and reducing drink-driving (*67*). A meta-analysis of 48 health-behaviour campaigns reported that on average, 9% more people exhibited a healthy form of behaviour following a campaign than before (*62*). Mass media campaigns have also been used to address violence. Few studies, however, have evaluated their effectiveness at reducing violence. By contrast, many studies have examined the effectiveness of other campaigns to promote healthy behaviour.

Among the factors that seem to contribute to the success of mass media campaigns are messages about legal penalties for non-compliant behaviour, fresh information (i.e. a new recommended behaviour to solve a health problem) and reaching a large proportion of the intended audience (*62*). In addition, success is more likely if messages are tailored to audiences using social marketing principles and creating a supportive environment that enables the intended audience to make changes – e.g. by mobilizing communities in support of the campaign (*68*). To develop effective campaigns, it is also important to use research, such as interviews with key stakeholders and focus groups with members of the target audience, to determine existing attitudes and beliefs and ways of motivating people to change their behaviour (*69*). Campaign messages should also be pre-tested among target audiences to ensure they are understood correctly and to minimize any unintended negative effects on other audiences (*69*).

being verbally, but not physically victimized. However, effects differed by sex (*58*).

3.3 Laws and policies

Legislation can be a key tool in changing behaviour and perceptions of cultural and social norms. Laws and policies that make violent behaviour an offence send a message to society that it is not acceptable. Countries differ in the laws applied to violent behaviour. While nearly all countries have laws that criminalize most forms of homicide, only some countries have laws in place to protect women from intimate partner violence, or children from caregiver maltreatment. However, there has been a recent move internationally towards the enactment and implementation of such laws; particularly for intimate partner violence where there has been increased international activity to promote women's rights. For example, laws on domestic violence have recently been implemented in Brazil (2006), Ghana (2007), India (2006) and Zimbabwe (2006). Confounding factors make it difficult to evaluate the effects of laws and policies on cultural and social norms and violent behaviour (but see **Box 4**). Furthermore, the introduction of legislation that makes violent behaviour a criminal offence increases rates of reported violence, making trends from official statistics difficult to interpret. Finally, although the implementation of laws may have an effect on behaviour through fear of punishment, changes in deeply held beliefs that justify such behaviour may take far longer to occur.

BOX 4

Banning corporal punishment

In 1979, Sweden introduced legislation to abolish all physical punishment of children by caregivers. The ban aimed, in part, to challenge a common attitude that corporal punishment was a normal part of rearing a child and establish a new social norm: that physical punishment was unacceptable. While the direct impact of the ban is difficult to determine, a variety of evidence suggests that attitudes towards corporal punishment and levels of physical violence towards children changed following its implementation (*70*,*71*). For instance, a study conducted 30 years after the ban came into effect revealed that public support for corporal punishment declined from 53% in 1965 to 11% in 1994 (*70*). Of Swedish children born in the 1950s, nearly all were struck by their mothers before the age of four. However, among those born in the late 1980s, only 14% had ever been struck by their mothers (*71*). Furthermore, in 1965, half of the Swedish population believed physical punishment was necessary in rearing a child, but in the mid-1990s, only 11% of the population were "positively inclined" towards even mild forms of physical punishment (*71*). Reports of assaults against children did increase between 1981 and 1996, but this may have reflected the public's greater willingness to report less severe forms of violence (*72*). It remains unclear, however, how much of the shift in norms and behaviour can be attributed to the legislation. Some observers note that Swedish attitudes towards corporal punishment had been steadily changing for years before the ban was introduced and may have prompted the change in legislation (*73*).

4. Challenges of evaluating effectiveness

Although interventions to alter cultural and social norms are among the most visible violence prevention strategies, they are seldom rigorously evaluated. By contrast, interventions to alter norms related to other public health issues such as smoking, drink-driving and alcohol abuse have been subject to many thorough evaluations, including meta-analyses.

Rigorous evaluations of interventions to change cultural and social norms supportive of violence are, however, feasible – as indicated by the examples described in this briefing – but they face the following challenges:

- *Confounding factors:* Often cultural and social norms interventions are integrated with other strategies, such as training in conflict resolution skills, role modelling or community-based activities (e.g. micro-loans). This makes it difficult to isolate the independent effects of interventions for changing norms related to violence.
- *Actual violence is rarely used as an outcome measure:* Even where evaluations have been undertaken, these frequently measure changes in attitudes and norms rather than violent behaviours. Future evaluations of cultural and social norm interventions aimed at preventing violence should use actual violence as an outcome measure.
- *Difficulty selecting equivalent comparison groups:* When evaluating norms interventions that target large groups or whole populations – mass media campaigns, for example – it is often difficult, or impossible, to have a control group that is equivalent in all important respects to the group receiving the intervention. This limits the certainty with which evaluators can attribute changes in levels of violence to the intervention.
- *Mechanisms not understood:* How such interventions work remains poorly understood with few studies exploring the underlying mechanisms through which altering social and cultural norms changes behaviour. Even definitions of key terms such as *cultural, social, norms, beliefs*, and *attitudes* still require clarification and consensus.

5. Summary

Violent behaviour is strongly influenced by cultural and social norms; so efforts to prevent violence must consider how social pressures and expectations influence individual behaviour. Interventions that attempt to alter cultural and social norms to prevent violence are among the most widespread and prominent. Rarely, however, are they thoroughly evaluated, making it currently difficult to assess their effectiveness. Rigorous scientific evaluations of interventions that address norms supportive of violence present particular, but surmountable, challenges, which partly explain their scarcity. Nevertheless, a number of positive results have been reported.

Although the effect of mass media interventions, aimed at whole societies, on levels of violent behaviour have seldom been evaluated, their success in addressing other public health issues (smoking, and drink-driving, for instance) suggests they have a critical role to play in the prevention of violence. Furthermore, *edutainment* initiatives, such as Soul City in South Africa, have shown promise in changing cultural and social norms and attitudes associated with violent behaviour. While it is difficult to ascertain the effectiveness of laws and policies in changing social attitudes, legislation that is enforced can send clear messages to society that violent behaviour is not acceptable.

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violence prevention
the evidence

7.

Reducing violence through victim identification, care and support programmes

Overview

Protecting health and breaking cycles of violence

In addition to physical injury, violence can lead to life-long mental and physical health problems, social and occupational impairment and increased risk of being a victim and/or perpetrator of further violence. Interventions to identify victims of interpersonal violence and provide effective care and support are, therefore, critical for protecting health and breaking cycles of violence from one generation to the next. Evidence for such interventions is currently promising but remains limited in two respects: first, most of it comes from the United States and other developed countries and, second, there is insufficient research on long-term effects.

A range of interventions can help identify victims and initiate a response

Screening tools appear promising to identify victims of intimate partner violence and elder abuse. Violence education programmes can raise awareness of violence and increase knowledge of how to identify and support victims. Mandatory reporting systems, however, although established in many countries, remain controversial. In England and Wales, multi-agency risk assessment systems enable staff in a range of services to identify high-risk victims of intimate partner violence and better plan a support strategy.

Advocacy services, sexual assault nurse examiner programmes and women's shelters

Advocacy programmes – which offer services such as advice, counselling, safety planning and referral to other agencies – can increase victims' safety behaviours and reduce further harm. Sexual assault nurse examiner programmes show promise in improving victim care and support and facilitating prosecution of perpetrators. Evidence of the effectiveness of women's shelters for reducing intimate partner revictimization is currently insufficient.

Helplines and psychosocial interventions

Limited evidence suggests that helplines can help decrease callers' distress and sense of hopelessness. Some psychosocial interventions such as trauma-focused cognitive behavioural therapy have been found to reduce mental health problems, such as post-traumatic stress disorder, associated with violence.

Criminal justice system measures to care for and support victims of violence

Protection orders, which prohibit a perpetrator from contacting the victim, can help reduce revictimization among victims of intimate partner violence. Special courtroom measures, such as giving evidence by live video link or using an intermediary for questioning, have been shown to improve victims' experience of court. Specialist courts, which aim to improve coordination between the criminal justice and social service agencies, have been found, for instance, to increase arrests, guilty pleas and conviction rates.

1. Introduction

Internationally, over half a million people die from interpersonal violence each year (*1*) and millions more are victims of non-fatal violence. In 2004, violence was one of the top 20 causes of death and disability globally (*2*). For many forms of violence, such as intimate partner violence and child maltreatment, victims can suffer repeatedly and for many years without such abuse coming to the attention of authorities (*3*). In addition to physical injury, violence can have life-long health and psycho-social consequences. These include mental health problems; physical health problems, such as cardio-vascular disease and cancer due to the adoption of health risk behaviours such as smoking and harmful use of alcohol as a means of coping with child maltreatment in particular; and impaired social and occupational functioning. The burden of violence can extend to families, friends and public services that deal with the ongoing impacts of violence (e.g. criminal justice agencies and health, social and welfare services). Being a victim[1] of violence can also increase an individual's risk of further abuse and of becoming a perpetrator of violence (*1*). Identifying, caring for and supporting victims of violence through the use of evidence-based initiatives is thus crucial in protecting health and breaking cycles of violence. This document outlines evidence of the effectiveness of interventions to identify, care for and support victims of interpersonal violence. The area of pre-hospital and emergency medical care is not covered by this document since it is already addressed by three WHO guidelines (*4–6*). It covers the following:

1) **Measures to identify and respond to victims of interpersonal violence:**
   - Screening tools;
   - Education programmes on violence and victim identification;
   - Mandatory reporting systems; and
   - Multi-agency risk assessment and response.
2) **Care and support programmes for victims of interpersonal violence:**
   - Advocacy programmes;
   - Sexual assault or forensic nurse examiner programmes;
   - Women's shelters;
   - Helplines;
   - Psychosocial interventions;
   - Protection orders; and
   - Special courtroom measures, specialist courts and police stations that exclusively cater to women.

Few rigorously evaluated studies have examined victim identification, care and and support programmes, and most evidence has been generated in developed countries, particularly the United States of America. Interventions to identify, care for and support victims of violence covered here should be seen as part of broader strategies that seek not only to support victims, but also to alter the individual, relationship, community and societal factors that promote or prevent violence.

[1] Witnessing violence can have severe impacts on health and wellbeing and thus witnesses of violence also require identification, care and support.

2. Measures to identify and respond to victims of interpersonal violence

A large proportion of interpersonal violence is unreported to criminal justice agencies, often because individuals fear stigma (e.g. from family and friends) or retribution from abusers for revealing their abuse (*7*,*8*). However, violence often leads to physical injury and a range of emotional and social problems, which can bring victims into contact with health and other services (e.g. primary care, emergency departments, mental health services) (*9*,*10*). Consequently, such settings provide an opportunity to identify victims of violence, provide support and refer them appropriately (*11–13*). However, a range of obstacles can prevent agencies from identifying and supporting victims of violence. For staff working in healthcare settings, for example, these can include lack of education; time constraints; stereotyping; fear of offending the patient; fear of accusing the perpetrator; powerlessness, and feelings of hopelessness and frustration; lack of screening routines; and a lack of perceived responsibility (*14–16*). In addition, many victims will not disclose their situation unless they are directly asked. Therefore, health and other professionals require the information, knowledge and skills to ensure that they can recognize victims of violence and respond to their needs.

2.1 Screening tools to identify victims of violence

Screening is a process used to identify people at risk of a disease or condition, who may otherwise remain undetected. For victims of violence, screening aims to increase identification, lead to appropriate interventions and support and decrease subsequent exposure to violence and related problems (*17*). A range of screening tools have been developed for use in settings such as emergency departments, pre-natal services and mental health care settings, most commonly for identifying victims of intimate partner violence and child maltreatment. The tools generally consist of a series of questions about a person's current relationships and their experience of physical, sexual and emotional violence. Evidence suggests that screening by health care providers can be effective in facilitating the disclosure of intimate partner violence and thus improving identification levels (*18–21*). For example, a study in a Canadian emergency department compared the use of a five question screening tool for intimate partner violence with routine emergency care, and found that the tool increased detection rates from less than 1% of female patients to 14% (*20*).

While screening for violence within healthcare settings is widely promoted, there is little evidence on its sustainability or effectiveness in helping to reduce violence. A systematic review of studies exploring screening for victims of intimate partner violence in healthcare settings found that modest improvements were made in identification of victims. However, there was no evidence that improvements in identification were sustained beyond initial implementation (*17*). Another systematic review found that while screening in emergency departments can be effective in improving victim identification, there are a number of barriers to introducing and sustaining this routinely. These include inadequate knowledge and skills among staff, lack of privacy or after hours services within emergency department settings and lack of staff ownership and acceptance of the questions posed (*19*).

Screening for victims of violence can be implemented universally (i.e. with all patients) or targeted at patients considered to be at-risk (e.g. presenting with physical injuries [*22*,*23*], depression, anxiety or sexual health problems). It has been suggested

BOX 1

Screening tools for intimate partner violence in health care settings

Some of the more commonly used screening tools include the Abuse Assessment Screen; Hurt, Insulted, Threatened with harm and Screamed at (HITS); Indicators of Abuse Screen; Ongoing Violence Assessment Tool (OVAT); Partner Violence Screen (PVS); Slapped, Threatened or Thrown scale; Woman Abuse Screening Tool (WAST); and Women's Experience with Battering scale (WEB).

A systematic review of research on screening tools for intimate partner violence in health care settings identified a number of valid and reliable tools for use in these environments (*20*). The HITS screening tool was found to show the greatest diagnostic accuracy, concurrent validity and reliability compared to a range of other screening tools (e.g. OVAT, PVS, WAST, WEB).

The HITS screening tool was developed in the United States for use by family physicians to identify victims of verbal abuse and physical violence (*24*). The tool consists of four questions developed by a group of family physicians and includes:

- How often does your partner physically hurt you?
- How often does your partner insult you or talk down to you?
- How often does your partner threaten you with harm?
- How often does your partner scream or curse at you?

Patients answer each of the four questions using a five-point scale from never [1] to frequently [5]. Scores are summed; a score of 10 plus suggests the patient is abused.

However, another systematic review concluded that the evidence base is currently too limited to allow any particular screening tool to be recommended (*25*). Furthermore, with the number of questions asked in screening tools varying, particular tools may only be suitable in certain health care settings where there is adequate time and privacy for victims to answer questions (*26*). Also, there is some debate about whether presenting such screening tools in writing (using either a paper-based form or computer entry) or in face-to-face questioning is best.

that routine screening is more beneficial than targeted screening as it increases the potential of victim identification among all patients (including those with symptoms not overtly associated with violence) (*19*). A study in the United States found that while the majority of abused and non-abused women attending emergency departments supported routine screening, those who had suffered abuse were less supportive (*26*). Limited resources may mean routine screening is not possible and that identified victims are not offered subsequent support. Consequently, the choice of whether or not to screen and, if so, the screening method used must be made in light of available resources.

There is little evidence examining the effectiveness of screening for other types of violence (e.g. elder abuse, youth violence, child maltreatment). In the United Kingdom, the introduction of a reminder flowchart to improve detection of child maltreatment for staff in an emergency department found that it increased staff awareness, consideration and documentation of intentional injury (*27*). However, evidence from systematic reviews suggests that screening for child maltreatment can result in high levels of false-positives and consequently should not be recommended (*28*,*29*). Further, all studies meeting quality criteria for these reviews assessed tools directed at parents. This can create reliability problems as information may be obtained directly from the perpetrator (*1*). For elder abuse, it has been recommended that public health care workers screen for abuse as a necessary first step in a chain of interventions. However, the implementation of screening should take place within an interdisciplinary framework and be accompanied by ongoing research, evaluation and capacity building (*30*).

The benefits of screening tools may only be realised if they are complemented by protocols that incorporate victim identification and support into routine practice (*11*,*31*). For example, in the United States, a pre- and post-test controlled study explored the effectiveness of having an abuse assessment protocol in prenatal clinics. During the 15 months following the introduction of the protocol, an audit of patient charts found that 88% of patients in the intervention clinics had been assessed. Furthermore, detection of abuse increased from under 1% to 7% of patients in the intervention

clinics; there were no changes in the comparison clinics (*32*). Adequate auditing, training and support are required to ensure such protocols are followed (*31*,*33*).

2.2 Education programmes on violence and victim identification

A lack of violence-related education among healthcare staff can be a barrier to the recognition, identification and support of victims of abuse (*14*,*34*–*36*). A range of training programmes have been developed for health care staff to aid their understanding of violence and increase victim identification and subsequent support and referral (*37*). These cover topics such as improving staff knowledge on issues surrounding violence including its extent, impacts and risk factors; reasons why victims may not report their abuse and staff competence in screening; documenting evidence; assessing victim safety; and referring victims for appropriate support.

Evaluations of two such programmes that focused on the education of health care professionals about intimate partner violence (*38*,*39*) suggest that training can improve knowledge of, and attitudes towards, screening for intimate partner violence (*41*–*44*), as well as perceived self-efficacy in supporting victims (*37*).

Although fewer studies have examined the effectiveness of education programmes in tackling other types of violence (e.g. child maltreatment and elder abuse), some positive results have been reported. For instance, child maltreatment education can increase knowledge, appropriate attitudes and perceived self-competency to manage child abuse cases among medical staff immediately after training (*37*). Longer term outcomes have generally not been measured. Rigorous studies on the effectiveness of education on managing elder abuse are lacking. However, such interventions can improve knowledge and level of comfort in handling elder abuse and neglect (*37*).

Outside the healthcare sector, organizations such as the police and specialized non-governmental organizations (e.g. Victim Support in the United Kingdom) can also provide training to staff and volunteers. Specific agency guidance for supporting victims has also been developed. For example, in Uganda, a handbook for police on responding to intimate partner violence provides information on the issue, along with risk assessment forms, interview guides and practical examples of how to support victims (*40*). There is little research available on how such measures impact on levels or quality of support provided to victims or victimization.

2.3 Mandatory reporting

Some countries (e.g. Australia, Canada, England, South Africa and the United States [*41*]) have mandatory child maltreatment reporting laws. In general, these require professionals in contact with children to report all suspected child maltreatment cases to authorities with legal responsibility for child protection. This aims to ensure that appropriate enquiries and interventions are initiated. However, there is little consensus on the usefulness of mandatory reporting of suspected child maltreatment. Critics have raised concerns including the fear of investigation deterring families from accessing services; child protection resources being focused on the investigation of allegations of maltreatment at the expense of supporting victims; and a lack of legal, child protection and support services being available to act on a report (*41*,*42*). In some states in the United States, differential response systems allow child protection agencies more flexibility to address cases based on perceived risk and the family's personal circumstances. Low and moderate risk cases can be offered a family assessment to determine needs and encouraged to access support services most appropriate to them (*43*).

In some states in the United States, mandatory reporting of intimate partner violence incidents has also been established. Again, debate surrounds the appropriateness of this approach (*11*). While supporters believe it can enhance victim safety and improve health care responses to intimate partner violence and data collection, critics believe that it may place women at risk of further abuse and deter them from accessing services (*11*). Although mandatory reporting systems are in operation in many countries, there is little evidence relating to their effectiveness in preventing any form of violence.

2.4 Multi-agency risk assessment and response

In some countries, multi-agency victim identification protocols and risk assessment tools have been developed to provide a coordinated response to identifying and supporting victims. In England and Wales, multi-agency risk assessment conferences (MARACs) aim to provide an enhanced response to high-risk victims of intimate partner violence through multi-agency data sharing and coordinated service provision. Once identified using a risk

assessment tool, high-risk cases are discussed in MARAC monthly meetings during which multi-agency data on the high-risk individual is shared to enable an appropriate response. All discussions and data sharing take place with the individual's consent. Initial research indicates that this coordinated response is effective in reducing revictimization (i.e. being a victim of violence again), improving the safety of staff working with perpetrators of violence (through establishing multi-agency visits) and improving information sharing between agencies (*44*).

3. Care and support programmes for victims of interpersonal violence

Following the identification of victims, it is crucial that effective systems are in place to care for and support them and reduce the likelihood of revictimization.

3.1 Advocacy programmes

Advocacy programmes provide support and guidance to vulnerable individuals and their families. Services range from providing information and counselling to job training, referrals to treatment for substance abuse and assistance in dealing with social and legal services (*1*). A number of advocacy programmes have reported success in improving the quality of life and social support for victims of violence and some have shown positive impacts in reducing revictimization, at least in the shorter term.

Brief support and counselling interventions

In healthcare settings, studies have assessed the impact of brief support and counselling interventions for women identified as intimate partner violence victims through screening. In China, a randomized controlled study evaluated an intervention delivered to abused pregnant women accessing public clinics. Counselling sessions aimed to improve safety behaviours and reduce further victimization. At follow up, women in the experimental group reported significantly less psychological abuse, less minor (but not severe) physical violence and lower postnatal depression scores (*45*). A randomized controlled study in primary care clinics in the United States assessed the impact of two interventions for female victims of intimate partner violence: the first providing wallet-sized cards with a safety plan and details of local support services, and the second, a 20-minute nurse-led discussion, which included support, guidance and referrals. The study found equal reductions in violence and improvements in safety behaviours across groups (*46*). Both interventions also led to improvements in the behavioural functioning of the victims' children (*47*).

Post shelter advocacy

In the United States, a randomized controlled trial assessed an intervention providing advocacy services (4–6 hours per week) to victims of intimate partner violence for the first ten weeks post-shelter. The programme trained female undergraduate students to work with a single client to identify unmet needs and mobilize appropriate community resources, including education, employment, housing, legal assistance, child care and healthcare. The study found the intervention reduced revictimization and improved quality of life, social support and access to community resources at two year follow-up (*48*). While positive effects on quality of life and level of social support were sustained at three year follow-up, effects on revictimization were not (*49*). The programme also resulted in children of women in the intervention group reporting significantly higher self-worth and competence in a range of domains (e.g. physical appearance), and witnessing lower levels of abuse, at four month follow-up (*50*).

Encouraging positive safety seeking behaviours

Interventions designed to encourage positive safety seeking behaviours (sometimes referred to as a safety plan) among victims of intimate partner violence have shown promising results. Examples of safety seeking behaviours promoted include obtaining copies of, and hiding, important documents (e.g. personal identification, driver's license); saving and hiding money; and having a known place

BOX 2

Evaluation of Child Advocacy Centres (CACs) in the United States

A study of four CACs in the United States found that, compared to communities providing traditional child protection services (CPS), CACs had greater law enforcement involvement in abuse investigations, more evidence of a coordinated multi-agency response, better access to medical exams for victims, more victim referrals to mental health services and greater care giver (non-abusive) satisfaction with the investigation process (*52*). Research in the United States has found that for every dollar invested in a CAC, there is a saving of $3.32 dollars through reduced costs of investigation and associated support (*53*). Some research suggests that it is the multi-agency nature of CACs that make them effective and have found that other multi-agency models (e.g. Child Protection Teams in the United States) are equally effective (*54*).

to go to for safety if required (*51*). A randomized controlled trial assessed a safety seeking behaviour intervention in a family violence unit based in a United States District Attorney's office. Women in the intervention group were offered six phone calls to discuss safety seeking behaviours, alongside standard services. This resulted in them practising significantly more safety behaviours than controls – an effect that was sustained at 18 month follow-up (*55*,*56*).

Child advocacy centres

Child Advocacy Centres (CACs) provide a multi-disciplinary approach to assessment, care and treatment for abused children and young people. CACs convene, often in one location, child protective services, criminal justice agencies and medical and mental health professionals. The multi-agency approach aims to decrease the duplication and fragmentation of services with improved coordination and, consequently, reduce the potential for secondary victimization,[2] improve the provision of support and increase conviction rates (*57*,*55*). In the United States, national standards have been set for accreditation of CACs, including the provision of a child-friendly facility, a multi-disciplinary investigation team, case reviews, medical evaluation, and therapeutic interventions and victim advocacy services (*58*).

CACs have been also established in a number of other high-income countries. While some focus exclusively on forensic issues, others aim to provide multi-agency services to child victims of violence. Few studies have assessed the long-term impacts of these services on revictimization, yet studies to date show promising results regarding victim support (**see Box 2**).

[2] Secondary victimization occurs when the societal response to, for instance, rape, disability, or mental disorder is more disabling than the primary condition itself.

In countries including Bangladesh, Malaysia, Namibia and Thailand, one-stop crisis centres have been implemented at a national level (*31*). These centres offer a range of integrated services to address child abuse, intimate partner violence and sexual violence, addressing victims' medical, legal, psychological and social problems at a single location. However, no evidence is currently available for their effectiveness.

Advocacy in the criminal justice system

Advocacy services have been established to support victims in their dealing with the criminal justice system and improve perpetrator conviction rates. In England and Wales, Witness Care Units (WCUs) manage the care of victims and witnesses from the point of charging the alleged perpetrator through to the conclusion of the case. Providing a single point of contact, they aim to keep victims and witnesses informed of case progress; assess their needs; and provide them with appropriate support, such as childcare, transport to court or referrals to other services. An initial evaluation of WCUs found increased witness attendance in court, improved trial outcomes and improved witness and victim satisfaction (*59*).

3.2 Sexual assault or forensic nurse examiner programmes

In several developed countries (e.g. Canada, England and the United States), sexual assault (or forensic) nurse examiners (SANEs) are employed to provide care and support to victims of sexual violence (*60–62*). Often located in hospital settings, the key roles of SANEs are to conduct medical evaluations; counsel and support victims, focusing in particular on their emotional and psychological wellbeing; refer them to appropriate agencies; collect forensic evidence; and provide evidence in court. A review of studies on SANE projects

concluded that they can be psychologically beneficial, providing comprehensive medical care, obtaining forensic evidence both correctly and accurately, and facilitating the prosecution of rape cases (*61*).

A cohort study in the United States explored the impact of SANEs in a paediatric emergency department by retrospectively comparing treatment received by sexual assault victims (aged under 18) seen by a SANE and those who were not. Patients who had received SANE care were more likely to have had an STI test, pregnancy prophylaxis and a referral to a rape crisis centre (*63*). In the United Kingdom, the cost of providing forensic examination services has been found to be significantly lower when delivered by SANEs compared to doctors, with rates of satisfaction and standards of service remaining high (*60*).

3.3 Women's shelters

Women's shelters provide temporary, safe accommodation for women and children who have left an abusive relationship. In addition to housing and food, women's shelters often provide counselling and emotional support, help in obtaining housing and medical and legal assistance. Although women's shelters are widely used within many countries, there have been few attempts to rigorously measure their effectiveness in reducing violence's impact or re-occurrence (*64*). One cohort study suggested that time spent in a shelter could have beneficial effects, but only when victims had already started to take control of their lives before entering (*65*). Other evaluations suggest that victims feel safe while residing in a shelter (*66*), and become less depressed and more hopeful following a two-week stay (*67*). The effectiveness of a shelter is likely to depend on the types of supportive programmes it provides, and these are often the focus of evaluation studies. For instance, reductions in revictimization and improvements in quality of life have been reported for free advocacy services offered to women in the first ten weeks post shelter (see section on advocacy programmes). At present, there is insufficient evidence to judge the effectiveness of shelters on intimate partner violence revictimization. Furthermore, because shelters are often packaged with other services (support groups and legal assistance) (*68*), it is difficult to separate the effects of shelters alone.

3.4 Helplines

In many countries, helplines have been set up for victims of violence to report their abuse, and access support, advice and referral to appropriate services. In the United States, an evaluation of a suicide hotline found that there were significant decreases in callers' crisis states and hopelessness during the call and these were sustained during the following three weeks for both suicidal and non-suicidal callers (*69*,*70*). However, the evaluation indicated that improvements were needed in the referral of callers to appropriate support agencies and implementation of outreach strategies, such as follow-up phone calls, to provide additional support (*70*). Another limitation of helplines can be their hours of availability. A survey of a domestic abuse helpline in Scotland found that although it closed after midnight, nearly half of victims of intimate partner violence thought it would be easier to call after that time (*71*). The survey reported that 30% of those who called about their abuse had not talked to anyone else about it (*71*).

Many countries have established child abuse helplines to provide advice and support to children or those concerned about a child's welfare. Child Helpline International aims to create a strong and unified support system for such helplines. It has developed recommendations for their implementation and sustainability (*72*), although to date there are no rigorous studies on such helplines' effectiveness.

3.5 Psychosocial interventions

After exposure to a traumatic event, such as an act of violence, a proportion of people will suffer mental health problems such as anxiety, post traumatic stress disorder (PTSD; *73–75*) and depression. Psychological treatments are often used to address these symptoms. There are a number of different methods, but all techniques treat emotional and behavioural problems through conversation with a therapist. Psychological interventions may be carried out individually or in groups.

While psychological debriefing is widely used to prevent chronic PTSD and other mental health problems following a traumatic event, reviews suggest that there is no evidence for the effectiveness of single-session psychological debriefing, and that this method may even increase the risk of PTSD and depression (*76*). In contrast, there is evidence for the use of early trauma-focused cognitive behavioural therapy in preventing chronic PTSD (*77*,*78*).

This therapy was also found to be more effective than alternative psychosocial interventions (*77*,*78*). One systematic review found that among adults suffering from PTSD for a variety of reasons (including violence) trauma-focused cognitive behavioural therapy, eye movement desensitisation and reprocessing[3] and stress management/relaxation improved PTSD symptoms more than usual care or being on a waiting list. However, there was less evidence for the use of other therapies, including hypnotherapy, non-directive counselling and psychodynamic therapy (*79*). Treatments that focus specifically on the trauma incident are thought to be more effective than those that do not (*79*). There is some evidence for the effectiveness of psychological interventions to improve the mental health of both adults (*80–82*) and children (*83*) who have been victims of child sexual abuse.

3.6 Protection orders

Protection orders are used to prohibit perpetrators of violence from further abusing the victim. Research in the United States has found that protection orders can be effective in reducing revictimization among victims of intimate partner violence. For example, a prospective cohort study compared abuse among female victims of police-reported intimate partner violence who obtained a civil protection order following the incident with those who did not. Between the first (5 month) and second (9 month) follow-up periods, women with protection orders were found to have a decreased risk of contact with the perpetrator, of threats involving a weapon, of injury and of abuse-related medical care. Stronger decreases in risk were found among those who maintained the protection order for longer periods (*84*).

Regardless of whether or not a protection order is granted, applying for an order may be sufficient to reduce future violence. For instance, a cohort study in the United States involving women who had applied for a two-year protection order found levels of violence decreased whether or not they were granted the protection order, with reductions sustained at 18 month follow-up (*85*). A review of research on protection orders suggested that generally they lead to improvements in victims' lives through increases in perceived self-worth and safety (*86*). While evidence suggests that protection orders can be effective, their utility is limited when enforcement is inadequate.

3.7 Special courtroom measures, specialist courts and police stations that exclusively cater to women

Special courtroom measures and specialist courts aim to improve victims' experience of proceeding through the court system and giving evidence. Special courtroom measures may include using screens in the courtroom so that the witness cannot see, or be seen by, the defendant; giving evidence by live video link from a separate room in the court building; using video evidence in cross examination; clearing the public gallery of spectators; removing court attire, such as wigs and gowns (e.g. in the United Kingdom); and using an intermediary for questioning (*87*). An evaluation of such measures put in place for vulnerable and intimidated witnesses in England and Wales found positive results. These included improvements in satisfaction with the criminal justice process and reductions in perceived levels of intimidation and experience of anxiety. Further, a third (33%) of witnesses stated that they would not have been willing or able to give evidence without special measures (*88*). Despite this, research indicates that special measures are not used as often or effectively as they could be (*89*).

Specialist courts for intimate partner violence have been in place in parts of Canada and the United States since the 1980s, and more recently have been established across many areas in England and Wales. The objectives are to increase coordination between criminal justice and social service agencies, hold defendants accountable and address victims' needs effectively (*90*). Core components include access to advocacy services, coordination of partner agencies and their information systems, victim and child friendly courts, specialist trained personnel, evaluation and accountability, protocols for risk assessment, ongoing training, compliance monitoring and consistent sentencing (*91*). While rigorous, long-term evidence of the impact of specialist courts has yet to be established, evaluations have found them to be effective in increasing arrests (*90*), guilty pleas (*92*,*93*) and conviction rates (*93*); reducing recidivism (*89*); and increasing the speed at which cases are processed (*93*).

Police stations that exclusively cater to women are a further initiative to address violence against

[3] Eye movement desensitization and reprocessing involves the patient focusing on the traumatic event, thoughts and emotions while receiving stimulation in the form of eye movements (e.g. following a moving light).

women. These have been developed in a number of countries in Latin America and parts of Asia (*1*) with the aim of increasing the number of women reporting abuse, and improving the response of the police towards them (*1*). However, these initiatives have met with a number of problems, including the dismissal of women reporting to regular police units (*1*). The scarcity of all women police stations also means that women are often forced to travel long distances to report abuse (*1*).

4. Summary

Interventions to identify victims of interpersonal violence and provide effective care and support are an important part of efforts to break cycles of abuse from one generation to the next. Victims of violence can experience abuse for years without ever contacting police; yet they may come into contact with many other agencies that are well placed to identify their needs and initiate support. Thus, a range of interventions have been established to improve victim identification, including screening tools, professional education programmes, mandatory reporting systems, and multi-agency risk assessments. Most interventions have focused on intimate partner violence and have been implemented in developed countries, particularly the United States.

Current evidence for the effectiveness of screening for intimate partner violence is promising, showing that simple screening tools, often implemented in health settings, can identify victims of violence. However, increases in levels of identification can be short-lived and screening for intimate partner violence may be most successful when complemented by protocols that incorporate identification and management of victims into routine practice. More research is needed on screening's applicability to, and impact on, child maltreatment and other types of violence.

Violence education programmes can be useful in raising awareness of violence and increasing knowledge of how to identify and support victims and, consequently, can increase victim referrals to appropriate support services. Most programmes studied have been tested in medical settings. In some countries, mandatory reporting systems require professionals to report suspected cases of child abuse to authorities responsible for child protection. Such systems, however, are largely unevaluated and remain controversial.

Once identified, it is crucial that victims are offered effective care and support. Interventions that provide advocacy services such as advice, counselling, safety planning and referral to other agencies can increase victims' safety behaviours and reduce further harm. These measures can be implemented following screening, or can be used to provide additional support to those proceeding through criminal justice systems. Specialist measures for victims of sexual violence, in the form of Sexual Assault Nurse Examiner (SANE) programmes, have also shown promising results in improving victim care and support and facilitating the prosecution of rape cases. Further, a range of measures developed in the criminal justice system, such as protection orders and special courts, can help improve victims' experience of proceeding through the court system, increase conviction rates and reduce revictimization. Evidence to evaluate the effectiveness of women's shelters on intimate partner revictimization is at present insufficient; this is partly due to the difficulty of isolating the specific effect of shelters from the other services provided at the same time. To address mental health problems associated with experiencing violence (such as PTSD) some psychosocial interventions such as trauma-focused cognitive behavioural therapy have been successfully used with both children and adults.

Overall, however, rigorous scientific evaluations of the long-term effects of care and support programmes are currently limited, with most evidence from the United States and other developed countries. Thus, it is difficult to draw firm conclusions about their effectiveness and applicability in other settings. More research is needed to develop our understanding of both care and support programmes and of measures for identifying victims, particularly for violence other than that between intimate partners.

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- Preventing violence by reducing the availability and harmful use of alcohol
- Guns, knives and pesticides: reducing access to lethal means
- Promoting gender equality to prevent violence against women
- Changing cultural and social norms that support violence
- Reducing violence through victim identification, care and support programmes

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