

VIOLENCE AND PUBLIC HEALTH: AN INTEGRATED, EVIDENCE-BASED APPROACH TO PREVENTING DOMESTIC VIOLENCE AND CHILD ABUSE

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I. INTRODUCTION

Domestic violence and child abuse are both serious problems in their own right and highly significant contributors to the burden of ill health in countries the world over. Along with other types of violence to which they are causally related - such as youth violence, elder abuse and suicide - child abuse and domestic violence are therefore challenges for public health. In addition to the massive direct costs of treating injuries due to violence, most types of violence, but especially child abuse and intimate partner violence, have enormous non-injury health consequences including alcohol and drug abuse, depression and anxiety disorders, suicide and suicide attempts, obesity and eating disorders, unsafe sexual behaviour and sexually transmitted diseases (including HIV-AIDS) and smoking.

Violence - including child abuse and domestic violence - is, however, preventable. As shown by a growing body of scientific research, interventions that address the underlying causes of violent behaviour and victimization are effective in preventing new instances of violence. When applied at the population level to entire communities and societies, such interventions have been shown to be both effective and cost-effective.

Although there are relatively few published economic evaluations of interventions targeting interpersonal violence, available studies show that preventive interventions to stop interpersonal violence occurring cost less than the money that they save, in some cases by several orders of magnitude.

For instance, the costs of a USA programme to prevent child abuse equalled 5.0% of the costs of child abuse itself. Also in the USA, interventions that targeted juvenile perpetrators of violence - including aggression replacement training and foster care treatment - resulted in economic benefits that were more than 30 times greater than the corresponding costs¹.

A. World Report on Violence and Health²

The impacts of violence on public health, the drain on health services of treating the consequences of violence, and the fact that violence is preventable are among the main reasons why the World Health Organization (WHO) has in recent years scaled up its commitment to promoting the prevention of violence. In the year 2002, WHO published the *World report on violence and health*, and this report forms the foundation of the Organization's violence and health activities at the global, regional and country levels. The report represents the first ever comprehensive review of violence on a global scale, and through an exhaustive review of the best available scientific studies looks at the magnitude and impact of violence, risk factors, interventions and policy responses, and a set of recommendations for national and international action, all of which are discussed below.

Violence has many faces, some of which are highly visible and others of which we are only barely aware. The report addresses all of these, including youth violence occurring among persons aged 10-29 years;

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¹ For a review of the literature on the costs of violence and cost effectiveness of prevention, see Waters H, Hyder A, Rajkotia Y, Basu S, Rehwinkel JA, Butchart A. *The economic dimensions of interpersonal violence*. Department of Injuries and Violence Prevention, World Health Organization, Geneva, 2004.

² Unless otherwise indicated, all statistics and findings cited in this paper are from the *World report on violence and health*. Krug EG et al., eds. *World report on violence and health*. Geneva, World Health Organization, 2002.

collective violence, particularly armed conflicts; sexual violence, largely against women and girls, but also men and boys; suicidal behaviour; elder abuse; violence by intimate partners, and child abuse and neglect by parents and caregivers. Also included is a statistical annex with country and regional data from the WHO Database and Global Burden of Disease project for 2000, and a list of resources for violence prevention.

B. Objectives

This paper has six objectives.

- The first objective is to review the definition and typology of violence developed by WHO and from this to highlight the importance of dealing with child abuse and domestic violence in an integrated way, as part of the larger problem of preventing suicide and interpersonal violence in general.
- The second objective is to describe what is known about the magnitude and impact of different types of violence, and, as importantly, to highlight how much is not known about this aspect.
- The third objective is to describe what's known about risk factors and causes, especially those that underlie multiple types of violence.
- The fourth objective is to review the current status of prevention efforts and describe what is known about the effectiveness of different approaches – touching upon all types of violence to the extent possible.
- The fifth objective is to provide a snapshot of WHO's Global Campaign for Violence Prevention, focusing upon its recommendations for multi-sectoral prevention programming.
- The sixth and final objective is to highlight some of the implications of the public health approach to violence prevention for the criminal justice sector's work on child abuse and domestic violence.

II. DEFINITION AND TYPOLOGY OF VIOLENCE

A. Definition of Violence

The *World report on violence and health* defines violence as “the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, which either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment, or deprivation”. This definition reflects extensive review of other definitions of violence and thorough consultation with international experts. While every word of the definition is important, it is worth highlighting the fact that the definition identifies violence as including both threatened and actual physical force or power and that it does not limit violence to only those acts resulting in physical injuries but also includes psychological harm, deprivation and maldevelopment.

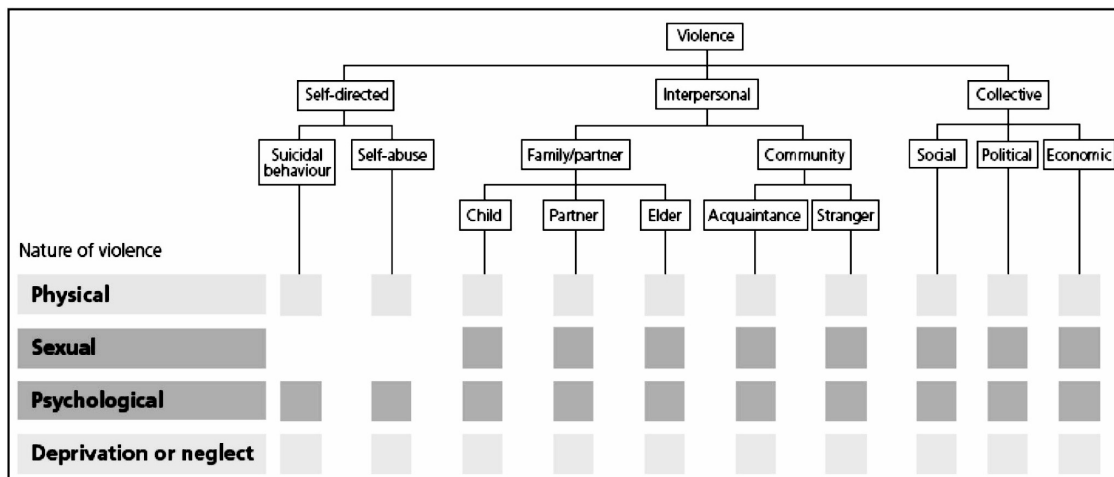
The report also stresses the importance of using operational definitions for particular forms of violence (such as violence involving firearms, knives and blunt instruments, child sexual abuse and intimate partner violence) that permit their unambiguous identification for measurement purposes, that are shared between different sectors, and that permit international comparability. The operational definitions contained in the various editions of the *International Classification of Diseases*³ come closest to meeting these criteria.

B. Typology of Violence

To properly understand the problem of violence in a way that assists in showing where and how we can intervene to prevent it, a typology of violence, such as the WHO typology shown in Figure 1, is useful. At the first level this typology differentiates between violence people inflict upon themselves, interpersonal violence inflicted by another individual or small group of individuals, and violence inflicted by larger groups such as states.

³ International Statistical Classification of Diseases and Related Health Problems 10th Revision. Version for 2003 <http://www3.who.int/icd/vol1htm2003/fr-icd.htm>.

Figure 1: Typology of violence from *World report on violence and health*



Self directed violence is divided into suicidal behaviour and instances of self-abuse. Interpersonal violence is divided into family and partner violence, and community violence. Collective violence is divided into social, political and economic violence. For each subtype of violence, the typology also includes the nature of violent acts, which can be physical, sexual, psychological, or involving deprivation or neglect.

While there is conceptual and practical value in distinguishing between these different types of violence, it also important to emphasize that there are many important links between them, and therefore that preventing one type of violence may help prevent other kinds of violence. For instance, war is a major risk factor for suicide and interpersonal violence, while interpersonal violence involving child maltreatment is a risk factor for suicidal behaviour and for becoming a victim or perpetrator of intimate partner violence in later life.

III. MAGNITUDE AND IMPACT OF VIOLENCE

A. Fatal Violence

Globally, violence is a substantial problem even when measured in terms of the deaths that it causes, which, as described below, represent only a small fraction of the full burden of its negative social and economic consequences. According to WHO burden of disease estimates, in the year 2000 there was a global total of over 1.6 million deaths due to violence. This was around half the number of deaths due to HIV/AIDS, roughly equal to deaths due to tuberculosis, somewhat greater than the number of road traffic deaths and 1.5 times the number of deaths due to malaria.

In the year 2000, and contrary to the impression created by the massive media coverage of collective violence, the largest number of violent deaths was due not to war but to suicide: 815,000 cases, or one suicide every 40 seconds. Interpersonal violence accounted for 520,000 deaths: or one murder per minute. There were 310,000 deaths directly due to collective violence or one war death every two minutes.

1. Global Homicide Rates

Rates of violent death vary by country and region income levels. For the year 2000, homicide rates were highest in Africa, Latin America and central and Eastern Europe, and lowest in Western Europe and some countries in the western Pacific. Studies show a strong relationship between homicide rates, economic development and economic inequality with poorer countries (especially those with large gaps between the rich and poor) tending to have higher rates of homicide than wealthier countries, and poorer communities in high inequality societies have higher homicide rates than their wealthier counterparts.

By age and sex there were marked differences in homicide rates. Gender differences were least marked for the age groups 0-4 and 5-14 years. For the age groups 15-29 and 30-44 male rates were four times as high as female rates and for the remaining age groups around 2.5 times as high as female rates. From age 15 onwards female rates showed little difference between age groups while male rates varied substantially.

2. Global Suicide Rates

Suicide rates show a very different geographical distribution to homicide rates. Except for central and eastern Europe which have high homicide and high suicide rates, the highest suicide rates occur in regions where homicide is lowest, and, at the country level, wealthier countries tend to have higher levels of suicide than poorer countries (though, this may also reflect gaps in information; for example, there is little information on suicide in Africa).

Suicide rates showed a clear trend towards increasing gender differences with age. At 5-14 years rates for males and females were roughly equal, whereas from age 45 onwards male rates were nearly twice as high as female suicide rates.

Owing to the inadequacies of data on collective violence, WHO burden of disease statistics do not include similar information for war deaths, although the *World report on violence and health* notes that, like homicide, war death rates were lowest in high-income countries and highest in low- and middle-income countries.

Deaths are only the tip of the violence iceberg, and even in terms of knowing the real size of this tip there is a very long way to go. In over half the world's countries there is no adequate information about how many people die by violence.

B. Non-fatal Violence

The violence recorded in routinely available data, such as vital statistics and crime reports, is mainly that which leads to fatalities. By contrast, the much larger burden of violence is non-fatal. To count non-fatal health outcomes one could begin by looking at cases reported to health agencies or to the police. Only small proportions present at both the health agencies and the police, and studies from several countries show that for every victim reporting to the police at least two more report only to health agencies. The health burden this represents is illustrated by the fact that for every young person murdered at least 20 to 40 other young people receive hospital treatment for a violent injury. Given that there are approximately 200,000 youth homicides each year, this means that globally there are between four and eight million hospital presentations each year for youth violence alone.

Moving away from health facilities, epidemiological studies show that an even larger proportion of violence is reported in household surveys and special studies, and it is here that female victims often outnumber male victims. These studies have shown, for instance, that up to 70% of women report being a victim of intimate partner violence at some point in their lives. One in five women versus one in 10 men report being sexually abused as a child. For 90% of cases involving female victims of child sexual abuse the perpetrators are male, as they are for 70% of male child sexual abuse victims. Up to 40% of first sexual encounters are forced. About 4% to 6% of the elderly report having been abused in their homes by caregivers, with elderly males and females equally at risk for being abused by spouses, adult children and other relatives. Many older citizens have also been subjected to abuse in institutions.

Unfortunately, a lot of violence never gets reported – whether due to fear, shame, the acceptance of violence as normal and therefore unremarkable, or the inadequacy of reporting and recording systems.

C. Health Consequences and Economic Costs of Violence

Beyond counting the deaths and injuries due to violence, the Report shows that it is of critical importance to look at the non-injury health consequences of violence, which are especially important for child maltreatment and intimate partner violence. These non-injury health consequences are many and include: physical consequences, such as gastrointestinal disorders and chronic pain syndromes; mental health consequences, such as depression, anxiety disorders and post-traumatic stress disorder; behavioural problems such as alcohol and drug abuse, eating and sleep disorders, unsafe sexual behaviour, smoking and other risk-taking behaviours; reproductive health consequences, such as infertility, gynaecological disorders, sexual dysfunction, unwanted pregnancies or pregnancy complications, and sexually transmitted infections, including HIV/AIDS.

In the case of collective violence, conflicts also destroy infrastructure and disrupt vital services such as immunization, medical care, and food production and distribution – contributing to infectious diseases and famine.

The human toll is only one dimension. Violence also puts a massive burden on national economies costing billions in US dollars each year when the direct costs associated with health care, emergency response services and law enforcement are combined with the many indirect costs such as lost productivity, quality of life and strains on economic development.

IV. RISK FACTORS FOR VIOLENCE

To prevent violence and reduce its consequences it is necessary to understand the causes of violence. A major finding of the *World report on violence and health* is that no single factor explains why one individual, family, community or society is more or less likely to experience violence. Instead, it shows that violence is rooted in the interaction of factors ranging from the biological to the political. The Report captures this in an ecological model that organizes the risk factors for violence into four interacting levels: the individual, close relationships, community contexts and societal factors.

Individual-level risks include demographic factors such as age, income and education; psychological and personality disorders, alcohol and substance abuse, and a history of engaging in violent behaviour or experiencing abuse.

The relationship level explores how relationships with families, friends, intimate partners and peers increase the risk of becoming a victim or perpetrator of violence, and risk factors at this level include poor parenting practices and family dysfunction, marital conflict around gender roles and resources, and associating with friends who engage in violent or delinquent behaviour.

The community level refers to the contexts in which social relationships occur such as neighbourhoods, schools, workplaces and other institutions, and the Report identifies a number of community characteristics that increase the risk for violence – for example, poverty, high residential mobility and unemployment, social isolation, the existence of a local drug trade, and weak policies and programmes within institutions.

At the societal level the Report identifies broad factors contributing to a climate that encourages violence, including economic, social, health, and education policies that maintain or increase economic and social inequalities, social and cultural norms supporting the use of violence, the availability of means (such as firearms) and weak criminal justice systems that leave perpetrators immune to prosecution.

V. THE PUBLIC HEALTH APPROACH TO PREVENTION

Violence is often seen as an inevitable part of the human condition – a fact of life to respond to, rather than to prevent. By contrast, the notion that violence is preventable is a basic tenet of the public health approach. In moving from problem to response, the public health approach has four steps. The first step is to statistically describe and monitor the extent of the problem; to identify the groups and communities at risk. The next step is to identify and understand the factors that place people at risk for violence – to assess which factors may also be amenable to intervention. The third step is to develop and evaluate interventions to reduce these risks, and the fourth is to implement and apply widely the measures that are found to work. By linking ongoing statistical description and monitoring of the problem to the fourth step of widespread implementation, the four steps form a feedback loop through which the effectiveness of violence prevention programmes can be constantly monitored and improved.

The public health approach is population-based. It emphasizes primary prevention – doing something about the problem before it occurs. It draws upon a wide range of expertise across many sectors, and it is based in science. It asserts that everything – from identifying the problem and its causes, to planning, testing and evaluating responses – should be based on sound research and informed by the best evidence.

To look forward and build a future violence prevention agenda, it is useful to have a sense of where the field of violence prevention is now. The following sections, mainly based upon analysis of the evidence collected in the *World report on violence and health*, therefore show the current status of prevention efforts in order to highlight what works and what's promising, and to identify areas where more attention is needed.

A. Public Health Interventions

Public health interventions are traditionally characterized in terms of three levels of prevention: primary

prevention – approaches that aim to prevent violence before it occurs; secondary prevention – approaches that focus on the more immediate responses to violence, such as pre-hospital care, emergency medical services or treatment immediately following a rape or an injury sustained as a result of violence; tertiary prevention – approaches that focus on long-term care in the wake of violence that has already occurred, such as rehabilitation and reintegration, attempts to lessen trauma or reduce the long-term disability associated with violence. The three levels of prevention are defined by their temporal aspect – whether prevention takes place before violence even occurs, immediately afterwards or over the longer term. While these levels of prevention have traditionally been applied to victims of violence and within health care settings, they are also relevant to perpetrators and have been used to characterize judicial responses.

When we look at where the emphasis of prevention programmes has been placed in terms of timing (before, soon after, or long-term care), there are some differences by type of violence. In youth violence, the majority of efforts have focused on primary prevention. There have been programmes for youth already involved in violent and delinquent behaviour and initiatives aimed at “getting tough on crime” – detaining juveniles, boot camps, shock incarceration programmes, and trying and sentencing youth in adult courts for serious offences – but on balance, there have been many more prevention efforts aimed at curbing violent behaviour before it occurs. And there has been a growing emphasis on early intervention in childhood – as a way of disrupting or changing the developmental trajectories of violence.

With intimate partner violence, sexual violence, child maltreatment and elderly abuse, the majority of efforts have been focused on secondary/tertiary prevention – that is, identifying victims and providing the necessary care and services to prevent re-victimization. There have been primary prevention efforts in schools and communities, and efforts aimed at parents and caregivers, but on balance, there have been more efforts aimed at secondary/tertiary prevention.

It is important to keep in mind that this is not an either/or proposition. As stated in the Report, we must do what we can to strengthen responses for victims of violence and make sure that offenders are punished, but we also need to develop and test programmes and strategies aimed at preventing violence from happening in the first place.

B. Ecological Model – Systems of Influence

Another way of looking at violence prevention programmes is by their level of influence. The ecological model was used in the *World report* to illustrate the complex and multifaceted nature of violence. As outlined in Section IV above, violence has its roots in the interaction of many factors – biological, social, cultural, economic and political. It is the outcome of a complex interaction between context and person – not person alone; and not context alone.

Each level in the ecological model can be thought of as a level of influence and also as a key point for intervention. That is, we can attempt to modify individual behaviour directly; we can modify individual behaviour by influencing the close, interpersonal relationships of people such as family environments; we can influence behaviour by modifying the settings people move through – for example, schools, workplaces or neighbourhoods. And we can make more societal, system-wide changes to improve (for example), educational or economic opportunities or change cultural norms. In short, we can aim to modify individual behaviour directly, and we can also attempt to change the environments and systems that create the climates for violence to occur.

If we look at the emphasis of prevention programmes by their level of influence, we can see that across the different types of violence, there is an imbalance in the focus of prevention programmes – there have been far more efforts aimed at changing individual and relationship factors than there have been at changing community or societal factors. In other words, more emphasis has been placed on changing individual attitudes, beliefs, and behaviours than on the factors or systems that create the conditions for violence to occur. In some ways this is not surprising because it is much easier to design these types of programmes and it is also much easier to evaluate them.

C. Types of Outcomes

Outcomes are also very important in violence prevention efforts. We can think of outcomes in terms of a continuum – with knowledge change at one end and reductions in injuries and deaths at the other end. We

can also think of these as a causal chain with change in one potentially leading to change in the next one – although this is not always the case. In terms of the outcomes generally studied, there have been more efforts across the different types of violence geared towards changing knowledge and attitudes than behaviour. Behaviour change is an important outcome and should be an important goal of prevention efforts. As one might expect, smaller-scale research efforts have generally not included injuries and deaths. These are more rare outcomes and it is difficult to see a significant change in these outcomes with a smaller-scale prevention trial.

VI. EVIDENCE-BASE FOR VIOLENCE PREVENTION PROGRAMMES⁴

From the perspective of public health, a fundamental question is “Do violence prevention programmes work?” That is, “Are there certain interventions, programmes or strategies that are effective in preventing or reducing violence?” To answer this question, this section reviews the evidence base for effective violence prevention programmes. Before doing so, it is important to note that the evidence-base for prevention programmes has largely come from developed countries. This is not to say that prevention programmes are not in place in developing countries, but rather that many have not been systematically and rigorously evaluated. It is important to keep this in mind when reviewing what is known about the effectiveness of different approaches.

To begin, it is necessary to define “effective”. Testimonials about a programme are useful because it is important to know that a programme is running smoothly and that the participants seem to be getting a lot out of the programme. But testimonials are insufficient when it comes to knowing whether or not the programme is producing change in behaviour or in the factors that mediate or moderate violence.

Various criteria for effectiveness have been proposed. The most stringent include an evaluation of a programme using a strong research design, either experimental or quasi-experimental; evidence of a significant preventive effect; evidence of sustained effects (that is, they are maintained beyond treatment or participation in the programme); and replication of the programme with demonstrated preventive effects. As you might expect, few programmes meet all of these criteria.

In the following sections, the term “effective” refers to programmes that have been evaluated with a strong research design and have evidence of a preventive effect; “promising” to programmes that have been evaluated with a strong design and have some evidence of a preventive effect, but require more testing; and “unclear” to programmes that have either been poorly evaluated or remain largely untested.

A useful way to review what is currently known about the effectiveness of different interventions is to consider it according to the different levels of influence mentioned earlier, namely the individual; close relationships; community and society levels of influence.

A. Individual-Level Interventions

Individual-level interventions are those designed to change an individual’s attitudes, beliefs and behaviours directly. It does not matter where the intervention takes place, if it is designed to change the attitudes, beliefs, and behaviour of an individual directly it is considered an individual-level intervention.

Programmes designed to prevent unintended pregnancies and to get women to seek adequate prenatal and postnatal care are believed to be key in ensuring better birth outcomes and reducing the risk for child maltreatment and the early developmental risk factors for youth violence. Both strategies, however, require more testing, particularly in terms of these outcomes. Interestingly, a year 2000 study by US economists John Donohue and Steven Levitt⁵ attributes the more than 50% decline in the US teenage murder rate during the 1990s to the impact of legalising abortion 20 years earlier, in 1973. Legalized abortion meant fewer unwanted children, and fewer unwanted children meant that 20 years later there were fewer individuals with socialization and substance abuse problems, and less violence.

⁴ This section is adapted from: Dahlberg LL, Butchart A. State of the Science: Violence Prevention Efforts in Developing and Developed Countries. In press, *Safety Promotion and Injury Control*.

⁵ Donohue J, Levitt S. The Impact of Legalized Abortion on Crime. *The Berkeley Law & Economics Working Papers*. Volume 2000, Issue 2, 2001 Article 7.

Preschool enrichment programmes are designed to strengthen bonds to school and to introduce children early on to the social and behavioural skills necessary for success in school. Long-term follow-up studies of prototypes of such programmes have found positive benefits including less involvement in violent and other delinquent behaviours (e.g. the Perry preschool programme). This is in the promising category because there have only been a few long-term studies.

Social development/life-skills training programmes are designed to build social, emotional, cognitive and behavioural competencies. They are often multi-component programmes that help participants manage anger, resolve conflicts and develop social and other life-skills. These appear to be an effective strategy for reducing youth violence and have also yielded positive, although short-term, results for dating violence.

Educational incentives for high risk youth to complete schooling are also among the most effective and cost effective approaches to preventing youth violence. A study by the Rand Corporation⁶ showed that, in California USA, graduation incentives for high risk youth were 5-7 times more cost-effective in achieving a 10% reduction in violence and crime than increased incarceration.

The evidence for counselling and therapeutic approaches is mixed. Counselling or psychotherapy is not an effective strategy for reducing youth violence. There is, however, some evidence that cognitive-behavioural therapy administered shortly after a sexual assault can hasten the rate of improvement and lessen trauma, and there is evidence that it may be an effective approach in reducing suicide attempts; in both cases, while promising, the evidence is not conclusive.

Some programmes provide training to police, health care providers, and employers to make them better able to identify and respond to the different types of violence. Training police has proved largely ineffective in changing police behaviour primarily because it has not always been accompanied by or reinforced with efforts to change attitudes and organizational culture. In terms of health care providers, training has led to changes in knowledge and awareness in the short term, but these changes have not always translated into behavioural change or changes in practice. And there has been little evaluation of programmes for employers.

Programmes for men who physically and sexually abuse their partners have helped some men modify their behaviour, but there is generally a very high drop-out rate and many who are referred to these programmes never complete them. These programmes work best when they continue for longer rather than shorter periods; change men's attitudes enough for them to discuss their behaviour; sustain participation, and work in tandem with a criminal justice system that acts strictly when there are breaches of the conditions of the programme.

B. Relationship-Level Interventions

Relationship-level interventions focus on changing behaviour by influencing close, interpersonal relationships and proximal environments, such as the family environment.

The evidence for programmes that focus on family relationships and functioning, particularly on family management, problem-solving, and parenting practices – is quite strong, consistent, and among the best evidence we have for reducing child maltreatment and other negative outcomes, including youth violence. The most successful programmes address both the internal dynamics of the family and the family's capacity for dealing with external demands. The earlier these programmes are delivered in the child's life and the longer their duration, the greater the benefits. Programmes that simply provide parents with information, however, are not effective.

For child abuse, evaluations of intensive family preservation services (which are geared towards keeping the family together and providing intensive services over a short period of time) have been limited and their findings inconclusive mainly because these programmes offer a large variety of services (making it difficult to know which are effective) and relatively few studies have included a control group.

⁶ Greenwood PW et al. (1996). *Diverting children from a life of crime: measuring costs and benefits*. Santa Monica, CA, The Rand Corporation.

A warm and supportive relationship with a positive adult role model is thought to be a protective factor for youth violence, and some well-designed studies do suggest that this is the case. However, there is also substantial variability with respect to mentoring programmes and participation by both the mentors and the youth can be uneven. Negative effects have been reported particularly where there has been little training and breakdowns in the relationships with mentors.

Peer interventions emphasize modifying behaviour by changing the nature of peer interactions, changing peer group norms, or redirecting peer group activities. The latter, for example, have been tried with gangs. There is little evidence to date that these types of approaches are effective in reducing violent behaviour, particularly as single component programmes. Some have also led to unintended increases in violent behaviour. One of the failed ingredients in these types of approaches is the mixing of high-risk youth together – which has had the unintended consequence of increasing cohesiveness and facilitating delinquency.

C. Community-Level Interventions

Community-level interventions focus on modifying the characteristics of settings that promote violent behaviour or create the conditions for violence to occur. Interventions at this level also focus on changes to institutional environments by means of appropriate policies, guidelines and protocols.

There have been a number of efforts aimed at improving school settings with policies and programmes that are designed to promote a consistent, pro-social, non-sexually and physically-violent environment in classrooms and throughout the school. Attention has been paid to classroom management practices, promotion of cooperative learning techniques, teacher/staffing practices, student monitoring and supervision, changes to the physical environment, and efforts to increase student engagement, reduce bullying, and involve parents/caregivers. And the evidence to date suggests that these types of environmental change programmes are promising. Several have been evaluated with rigorous designs and have evidence of a preventive effect. Further evidence of sustained effects and replication will place these in the effective category.

The evidence-base for other settings, however, is less developed. Active screening for abuse – whether for intimate partner violence, sexual violence, child maltreatment or elderly abuse – is generally considered good practice. Unfortunately, little systematic evaluation has been carried out on whether screening for abuse can improve safety and health-seeking behaviour – and if it does, under what conditions.

Efforts to improve workplace, residential and primary care environments by means of appropriate policies, guidelines, and protocols for identifying and managing abuse and for promoting healthy and non-violent behaviour have also not been rigorously and systematically evaluated.

More has been done along the lines of changing community attitudes, beliefs, and norms surrounding violence with the use of public information campaigns. Multi-component prevention campaigns have been launched to address gang violence, bullying, child maltreatment, and domestic and sexual violence. In general, these types of campaign have increased knowledge and awareness, as well as shifts in social norms concerning domestic violence and gender relations, and some have led to increases in disclosure of child abuse and sexual offending, but have not consistently led to changes in behaviour.

Other types of community-level interventions focus on community organizing, coordination of services, proactive policing, increased cohesion among community residents, the density of housing, and the availability of alcohol. Most have either been poorly evaluated or remain largely untested. Community coalitions, coordinating councils or interagency forums, for example, have been used to monitor and improve responses to intimate partner violence. Their aim is to identify and address problems in the provision of services, promote good practice through training, and to promote community awareness and prevention work. This type of intervention has been popular in the United States, Canada, and the United Kingdom and in parts of Latin America. Coalitions have also been put in place to raise awareness about the problem of youth violence, and similar coordinated community interventions have been put in place in parts of Africa to address child sexual abuse. These types of intervention have seldom been rigorously evaluated and the limited findings that do exist suggest that the efficacy of the services provided, particularly in the cases of partner violence and child abuse, may be more important than the community organizing per se. Efforts to

reduce the availability of alcohol, by, for instance, reducing the number of points of sale, the hours of sale, and the price of alcohol show promise in preventing youth violence.

D. Societal-Level Interventions

Societal interventions focus on the cultural, social and economic factors related to violence – addressing such issues as access to means, gender, economic or educational inequality – and emphasize changes in legislation, policies, and the larger social and cultural environment to reduce rates of violence.

Measures for reducing access to means include restricting access to guns (e.g., bans on certain types of firearms, waiting periods, rules on licensing and registration, stricter policing of illegal possession and trafficking of guns, and rules for storing them safely). With suicide, it also includes fencing in high bridges, limiting access to roofs and high exteriors of tall buildings, automatic shut-off devices for motor vehicles, restricting access to pesticides and fertilizers, and measures to make prescription drugs safer (e.g., packaging and monitoring size and use).

There is some evidence that restricting access to means is effective in reducing suicide. With interpersonal violence, there have also been a few studies showing a preventive effect. However, a recent systematic review of all the measures pertaining to firearms found insufficient evidence to conclude whether or not such measures are effective – citing inconsistencies in the findings and serious methodological flaws in the studies themselves.

The evidence for legislative and judicial remedies is also mixed. Measures to criminalize abuse by intimate partners, to broaden the definition of rape, to criminalize the harsh, physical punishment of children in various settings, and mandatory reporting laws for child and elderly abuse have been instrumental in bringing these issues out in the open and dispelling the notion that violence is a private family matter. In this regard, they have been very important in shifting social norms. However, the evidence surrounding the deterrent value of arrest in cases of domestic violence shows that it may be no more effective in reducing violence than other police responses such as issuing warnings or citations, providing counselling or separating couples. Some studies have also shown increased abuse following arrest, particularly for unemployed men and those living in impoverished areas. Protective orders can be useful, but enforcement is uneven and there is evidence that they have little effect on men with serious criminal records. In cases of rape, reforms related to the admissibility of evidence and removing the requirement for victims' accounts to be corroborated have also been useful, but are also ignored in many courts throughout the world.

As for the other societal approaches, much could be done in the way of educational reforms, policy changes to reduce poverty and inequality, and improve support for families. More could also be done in terms of changing social and cultural norms around issues of gender and to address racial and ethnic discrimination and harmful traditional practices. Unfortunately, although critically important, many remain largely untested ideas.

E. Multi-sectoral Solutions

From this review of the evidence for what works in preventing violence, it is evident that prevention, as noted earlier, is a multi-sectoral challenge requiring multi-sectoral solutions, and the involvement, among others of welfare, education, employment, the police, justice, diplomacy and public health. Within this mix of sectors, the Report shows that the role of public health should be to add value by assisting with:

- data collection through mortuary, coroner and medical examiner reports, health agency records, surveys and other surveillance mechanisms;
- research into the underlying causes and risk for violence, such as those discussed in this paper;
- prevention, by promoting a primary prevention approach and contributing advice on how to design, implement and disseminate prevention programmes;
- evaluation, by applying public health methods to determine the most effective responses;
- policy development;
- the provision of more effective trauma and health care services for victims of violence; and
- advocating for prevention using the information at the health sector's disposal about the magnitude of the violence problem and about its preventability.

VII. GLOBAL CAMPAIGN FOR VIOLENCE PREVENTION

Using data about the magnitude of the violence problem, the public health model for problem identification, intervention and ongoing monitoring, and the evidence base for prevention described in the preceding sections, the Global Campaign for Violence Prevention seeks to raise awareness about violence as a major public health problem, including the impact of violence on public health and the role that public health can play in the prevention of violence, and to advocate for increased human and financial resources for science-based violence prevention efforts at local, national and international levels.

A. World Report on Violence and Health Recommendations

At the heart of the campaign are nine recommendations for the prevention of violence made in the *World report on violence and health* and taken up in a number of global and regional resolutions and policy papers (see below).

Recommendations one to six focus on country-level actions for prevention and advocate:

1. creating, implementing and monitoring a multi-sectoral national action plan for violence prevention;
2. enhancing capacity for collecting data on violence;
3. defining priorities for and supporting research on the causes, consequences, costs and prevention of violence; and
4. promoting primary prevention responses;
5. strengthening responses for victims; and
6. integrating violence prevention into social and educational policies and thereby promoting gender and social equality.

Recommendations seven to nine promote international prevention actions, advocating:

7. increasing collaboration and exchange of violence prevention information;
8. promoting and monitoring adherence to international treaties, laws and other mechanisms to protect human rights; and
9. seeking practical, internationally-agreed responses to the global drugs trade and the global arms trade.

B. Country-level Implementation

A major thrust of the campaign is to promote implementation of the recommendations at the country-level. To this end, around 60 countries have involved their ministers of health, justice and others sectors in national launches of the report, often in conjunction with policy discussions about how to strengthen violence prevention activities. Over 70 countries around the world have officially designated senior ministry of health focal points for violence and health; and around 25 countries have or are currently preparing national reports and plans of action on violence and health.

C. Resolutions and Declarations

These ongoing efforts to secure political commitment by national governments are complemented by work with global and regional political and professional bodies to encourage the preparation and adoption of resolutions and declarations that commit signatories to implementing the *World report on violence and health* recommendations. These include resolutions by the World Health Assembly, United Nations Commission on Human Rights, the African Union, the Council of Europe and the World Medical Association.

D. Visual Awareness

To assist partners in violence prevention, WHO has published three poster series⁷ - the “red” series, the “explanations” series, and, launched at the May 2005 World Health Assembly, the “family album” series - copies of which are freely available from WHO. For countries interested in customizing the posters by translating the text into local languages, WHO will gladly provide the electronic printer files and permission to adapt and reprint the posters. Currently being edited, WHO has also collaborated with an independent television producer on production of a 50 minute television documentary on the problem and prevention of interpersonal violence.

E. Implementation Tools

The WHO has also prepared a number of documents⁷ that provide technical guidance on how to

⁷ All WHO violence prevention documents and posters can be downloaded or ordered, free of charge, from the WHO Prevention of Violence website, at: http://www.who.int/violence_injury_prevention/violence/en/.

implement the *World report on violence and health* recommendations, including *Preventing violence* which gives step-by-step advice on how to implement the report's country-level recommendations; a handbook for the documentation of violence prevention programmes, guidelines for the medico-legal care of sexual violence victims, and essential trauma care guidelines.

F. Violence Prevention Alliance

The Violence Prevention Alliance is a network of institutions linked by their voluntary adoption of shared violence prevention principles and policies derived from the *World report on violence and health*. Participation is open to WHO Member State governments, nongovernmental and community-based organizations, and private, international and intergovernmental agencies working to prevent violence. The Violence Prevention Alliance activities will expand the number of agencies that apply a public health approach to implementing violence prevention programmes and services. It will enhance the impact of individual programmes on national and local policy and practice. The Alliance is part of an ongoing effort to integrate more countries into the Global Campaign for Violence Prevention, while connecting similar groups at regional and local levels to facilitate better sharing of knowledge.

VIII. CRIMINAL JUSTICE IMPLICATIONS

This final section briefly comments on some of the main implications of the public health approach to violence prevention for the criminal justice sector's efforts to deal with violence in general and with child abuse and domestic violence in particular.

First, encyclopaedic reviews of the empirical research on what reduces crime and interpersonal violence have been completed by a number of governments, intergovernmental agencies and university groups in recent years. The findings of these reviews are highly convergent and agree with the *World report on violence and health* that rates of interpersonal violence can be significantly reduced through well-planned and multi-sectoral strategies that tackle multiple causes, using frameworks such as the public health approach. They are cautious about the extent to which increasing expenditures on policing and corrections will reduce rates of crime and victimization, particularly because of the costs involved to achieve minimal returns. The principal conclusions that these reviews draw are that while policing and corrections are an essential component of prevention, the policing models and types of intervention involved will strongly determine whether or not they are effective.

Second, the public health approach implies that child abuse and domestic violence are not free standing problems, but are causally linked to each other and to causes that are shared with other types of violence. Their prevention is therefore most likely to be achieved through an integrated approach that establishes information systems, prevention programmes and victim services relevant to all types of violence, and within this develops the specialist programmes (e.g. for home visitation and parent training) required to prevent child abuse and domestic violence. The third implication is that primary prevention is only possible through a multi-sectoral approach. For instance, the health sector has neither the mandate nor the knowledge to implement situational violence prevention measures, such as CCTV monitoring, which must be the task of the police, and the police are not equipped to design and deliver parent training and home visitation services, which must be the job of the social welfare sector. The obvious need for different sectors to deliver the interventions in a coordinated way highlights the need for clear leadership, which, since prevention is still new or unknown in many countries, remains critically underdeveloped.

The third and final implication concerns the importance of sharing data and collaborating across sectors in using data to identify the size and characteristics of the problem, to target interventions, and to provide ongoing monitoring of the impact of prevention efforts on violence and risk factors for violence. Because only a partial view of the problem is provided when using data from a single sector (such as the police or health services), it is critical to establish an information working group where data from many sectors can be brought together, analysed and interpreted with a view to informing prevention programming. An information working group can facilitate the initiation, continuation, and intensification of cross-disciplinary collaboration on the prevention of interpersonal violence. Once existing sources of data have been identified and relationships with the responsible agencies fostered through development and limited dissemination of the initial profile, interested groups can join the multi-sectoral response to the interpersonal violence problem by participating in the information working group. The information working group must ensure

widespread dissemination of the information gathered and all reports that are produced. Dissemination can inform the public about the extent of the problem and the factors affecting it; can raise the political profile of the problem within the community; and is essential to ensure that future plans to address it are based on appropriate evidence. Finally, an ongoing responsibility of the working group will be to critically assess the effectiveness of the system that has been created, as well as the quality of the data being produced.

IX. CONCLUSION

This paper has reviewed the *World report on violence and health's* key finding that violence is preventable, and has argued that child abuse and domestic violence should be addressed as part of the larger problem of violence in general. Practical steps to reduce the amount and severity of violence include preventing unintended pregnancies; strengthening preschool enrichment programmes; providing home visitation services to high risk parents; training parents in parenting skills; changing community norms surrounding violence; reducing alcohol availability; enhancing the fairness and efficacy of the criminal justice system; improving access to effective emergency medical care and medico-legal services, and reducing gender, economic and social inequalities.

There are many concrete things that can be done right now to further strengthen national violence prevention capacity, including appointing a ministerial violence and health focal point; commissioning a national report on violence and health; developing a national plan of action for violence prevention; raising awareness of the need for violence prevention through a poster campaign, and joining the Violence Prevention Alliance, whose founding participants include Belgium, Canada, Germany, Jamaica, South Africa, the US Centres for Disease Control and Prevention and the California Wellness Foundation.

To end, it is useful to recall the words of Nelson Mandela, who in his foreword to the *World report on violence and health*, writes: "We must address the root causes of violence. Only then will we transform the past century's legacy from a crushing burden into a cautionary lesson".