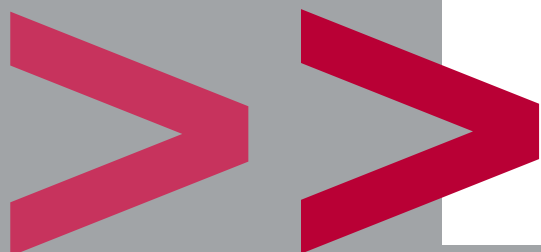




Preventing injuries and violence



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A GUIDE FOR MINISTRIES OF HEALTH



World Health
Organization

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Foreword

Injuries and violence are a threat to health in every country of the world. Between them, they account for 9% of global mortality – more than five million deaths every year. Eight of the 15 leading causes of death for people between the ages of 15 and 29 years are injury-related. These are road traffic injuries, suicides, homicides, drowning, burns, war injuries, poisonings and falls.

The extent of non-fatal injuries varies from country to country. For every death, though, it is estimated that there are dozens of hospitalizations, hundreds of emergency department visits and thousands of doctors' appointments. A large proportion of people surviving their injuries incurs temporary or permanent disabilities.

In the light of this public health calamity, awareness of injuries and violence and knowledge of prevention policies and programmes are increasing in some countries. In these places considerable progress is being made. Governmental and nongovernmental agencies are strengthening data collection systems, improving services for victims and survivors and stepping up prevention efforts. Yet for much of the world, the idea that violence and injuries can be systematically prevented is still a novel one. Though the main causes of mortality and morbidity are as old as the human species, it is only recently that the public health sector has begun to regard violence and injuries as preventable.

With the public health approach to violence and injury prevention becoming more accepted around the world, those in the field are seeking guidance for their work. A wide array of governmental and nongovernmental organizations is involved in violence and injury prevention. This document,

though, will focus on the main governmental body responsible for carrying forward the public health response: the ministry of health. The document was developed to help ministries of health understand their precise role in violence and injury prevention at the national and local levels, and set up durable and effective programmes.

This document should be used by ministries of health and their focal points as both a guide and a reference book. It leads the user through the stages of setting up, developing and evaluating violence and injury prevention efforts, always stressing collaboration with other sectors. The various tasks of organization, policy development, data collection, advocacy work and capacity-building are described in detail. Both new and established units of violence and injury prevention should find inspiration for their programmes in this document.

Around the world, morgues fill with victims of injuries and violence and hospital beds and doctors' waiting rooms overflow with survivors. The huge amount of suffering, time and expense our societies bear as a result could be spared. While violence and injury prevention is not a minor or easy undertaking, with good collaboration and systematic effort, even this oldest of human afflictions can be prevented.



Dr Etienne Krug
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WHO Department of Injuries and Violence Prevention

Introduction

WHY THE GUIDE WAS DEVELOPED

Injuries – resulting from traffic collisions, drowning, poisoning, falls or burns – and violence – from assault, self-inflicted violence or acts of war – kill more than five million people worldwide annually and cause harm to millions more. In some parts of the world, the public health community has long recognized injuries as a major public health problem. In other countries, the enormous medical, social and economic costs of violence and injuries are only now being recognized and serious efforts begun to prevent injuries and address their consequences.

In recent years, the World Health Organization (WHO) has significantly increased its activities in the field of injury and violence prevention. In the past four years, the Organization has produced two major reports, the *World report on road traffic injury prevention* and the *World report on violence and health*. Specific World Health Assembly (WHA) and United Nations General Assembly resolutions endorsed the reports' recommendations. Both the reports and the resolutions called on governments to greatly step up national efforts to prevent injuries and violence, and to coordinate these efforts through their ministries of health. In response to these calls, and in some cases also in response to formal requests from WHO's regional directors and regional resolutions, more than 100 governments have already appointed ministry of health "focal points" for injury and violence prevention.

In 2006, WHO convened the first global meeting of ministry of health focal points for injury and violence prevention in the margins of the 8th World Conference on Injury Prevention and Safety Promotion, in Durban, South Africa. From the discussions at this meeting it was apparent that a document clearly setting out the role of the ministry of health in the prevention and management of injuries and violence was sorely needed. Such a document could also help those campaigning to boost national or local injury and violence prevention programmes.

HOW THE GUIDE WAS DEVELOPED

This guide was prepared by WHO staff and outside experts between April and October 2006. Its content derives from resolutions of the WHA and WHO Regional Committees, WHO guidelines and world reports, and peer-reviewed literature, as well as the experience of experts and ministry of health focal points. The document underwent extensive review by ministry of health focal points and experts in all WHO regions.

WHOM THE GUIDE IS AIMED AT

This guide is aimed at ministry of health staff and policy-makers. These range from the specific violence and injury prevention focal points to staff in related fields – including in epidemiology, child and adolescent health, women's health, health of the elderly, health promotion, mental health, health services, international health, information technology, disaster management and occupational health. Furthermore, the document should be of assistance to those who allocate resources to ministries of health, and to all others working in violence and injury prevention and wishing to support their ministry of health in its efforts.

In some parts of the world, the public health community has long recognized injuries as a major public health problem. In other countries, the enormous medical, social and economic costs of violence and injuries are only now being recognized and serious efforts begun to prevent injuries and address their consequences.

Section 1

Background

Injuries and violence represent a major health threat to every country in the world, being responsible for over five million deaths each year and accounting for 9% of global mortality. Eight of the 15 leading causes of death for people aged 15–29 years are injury-related or violence-related. These are: road traffic injuries, self-inflicted injuries, interpersonal violence, drowning, fires, war injuries, poisonings and falls (see Table 1). For every death, it is estimated that there are

dozens of hospitalizations, hundreds of emergency department visits and thousands of doctors' appointments. Many of those who survive injuries or violence incur temporary or permanent disabilities or suffer other consequences, such as depression and behavioural changes related to smoking, eating and alcohol and drug consumption. Given current trends, the global burden of injuries and violence is expected to rise during the coming decades.

TABLE 1: LEADING CAUSES OF DEATH, BOTH SEXES, 2002

Rank	0–4 years	5–14 years	15–29 years	30–44 years
1	Perinatal Conditions 2 461 976	Lower Respiratory Infections 278 291	HIV/AIDS 604 943	HIV/AIDS 1 326 345
2	Lower Respiratory Infections 1 804 282	Road Traffic Injuries 132 695	Road Traffic Injuries 304 994	Tuberculosis 379 755
3	Diarrhoeal Diseases 1 681 060	HIV/AIDS 126 424	Maternal Conditions 258 128	Road Traffic Injuries 287 730
4	Childhood Diseases 1 033 321	Drowning 86 953	Self-inflicted Injuries 251 446	Maternal Conditions 233 640
5	Malaria 821 718	Childhood Diseases 72 078	Tuberculosis 241 246	Ischaemic Heart Disease 232 746
6	Congenital Anomalies 425 431	Fires 34 180	Interpersonal Violence 216 648	Self-inflicted Injuries 230 997
7	HIV/AIDS 340 219	Tuberculosis 33 182	Lower Respiratory Infections 143 320	Interpersonal Violence 166 661
8	Protein-energy Malnutrition 147 865	Protein-energy Malnutrition 31 630	Drowning 89 196	Cerebrovascular Disease 124 858
9	Syphilis 67 068	Meningitis 31 165	Fires 89 130	Lower Respiratory Infections, 117 663
10	Meningitis 64 495	Leukaemia 21 146	War Injuries 69 707	Cirrhosis Of The Liver 100 617
11	Drowning 57 973	Congenital Anomalies 21 099	Ischaemic Heart Disease 54 125	Poisonings 81 678
12	Road Traffic Injuries 50 139	Falls 20 580	Poisonings 51 494	Fires 64 494
13	Tuberculosis 43 241	Poisonings 19 982	Falls 37 874	War Injuries 59 359
14	Endocrine Disorders 42 444	Interpersonal Violence 18 340	Leukaemia 37 208	Drowning 58 725
15	Fires 39 669	Leishmaniasis 18 260	Rheumatic Heart Disease 36 985	Liver Cancer 55 519

Source: Injury: a leading cause of burden of disease, 2002. Geneva, World Health Organization, (in press).

While present in all countries, violence and injuries and their consequences are unevenly distributed around the world. They are particularly prominent among low-income and middle-income groups, where unsafe conditions of living, working and travel greatly increase the risk of injury and violence. Such groups usually also lack prevention efforts, as well as access to high-quality treatment and rehabilitation services. In addition, because injuries and violence so often affect those young

people who are breadwinners for their households, their resulting deaths or disabilities can have a profound impact on their families.

At the individual level, the treatment of injuries and violence involves both immediate medical care and long-term psychological, social and physical care and rehabilitation. At the communal level, injuries and violence have wider medical, social and financial repercussions that call for a coordinated

45–59 years	≥ 60 years	All Ages
Ischaemic Heart Disease 1 052 259	Ischaemic Heart Disease 5 857 506	Ischaemic Heart Disease 7 207 725
Cerebrovascular Disease 624 037	Cerebrovascular Disease 4 703 481	Cerebrovascular Disease 5 508 950
HIV/AIDS 481 459	Chronic Obstructive Pulmonary Disease 2 401 255	Lower Respiratory Infections 3 943 386
Tuberculosis 384 212	Lower Respiratory Infections 1 423 320	HIV/AIDS 2 919 373
Chronic Obstructive Pulmonary Disease, 310 061	Trachea, Bronchus, Lung Cancers 931 173	Chronic Obstructive Pulmonary Disease, 2 748 490
Trachea, Bronchus, Lung Cancers 263 206	Diabetes Mellitus 754 582	Perinatal Conditions 2 462 124
Cirrhosis Of The Liver 251 849	Hypertensive Heart Disease 739 357	Diarrhoeal Diseases 1 869 446
Road Traffic Injuries 222 249	Stomach Cancer 606 072	Tuberculosis 1 566 003
Self-inflicted Injuries 187 696	Tuberculosis 484 367	Trachea, Bronchus, Lung Cancers 1 243 199
Stomach Cancer 185 403	Colon And Rectum Cancers 478 747	Road Traffic Injuries 1 191 796
Liver Cancer 179 770	Nephritis And Nephrosis 440 669	Childhood Diseases 1 120 831
Lower Respiratory Infections 176 511	Alzheimer And Other Dementias 384 147	Diabetes Mellitus 987 816
Diabetes Mellitus 176 443	Cirrhosis Of The Liver 367 539	Malaria 911 574
Breast Cancer 148 096	Liver Cancer 366 887	Hypertensive Heart Disease 911 397
Hypertensive Heart Disease 130 200	Oesophagus Cancer 318 464	Self-inflicted Injuries 873 361

response. Management of the enormous health burden requires extensive health system resources. Financing the economic costs – including absenteeism from work and school, and the costs of the judicial and social systems – similarly represents a major drain on national economies.

Injuries and violence can be studied and documented, and their causes understood and acted upon. Research has provided clear evidence that certain interventions can prevent injuries and violence. Among those interventions proven effective are:

- seat-belts, helmets and enforced blood alcohol limits to prevent road traffic injuries;
- child-resistant containers to prevent poisonings;
- home hazard modification to prevent falls among the elderly;
- pool fencing to reduce the risk of drowning;
- treatment of depression to prevent suicide;
- school-based educational programmes to prevent intimate partner violence;
- home visitation programmes to reduce child maltreatment.

The *World report on violence and health* and the *World report on road traffic injury prevention* were launched by WHO in 2002 and 2004, respectively, in order to bring these issues to the attention of world leaders and put forward recommendations for action. The reports were endorsed by the World Health Assembly in resolutions WHA 56.24 (Implementing the recommendations of the *World report on violence and health*) and WHA 57.10 (Road safety and health). These reports and resolutions followed earlier WHA Resolutions calling on ministries of health to take appropriate action (see Box 1).

Given the complex causality of violence and injuries, their prevention requires action across a range of sectors at local, regional and national levels. Each sector has a specific role to play and

contribution to make. The health sector, however – health care and public health – must play a central role in these efforts, not only in providing care and support for victims¹ but also in applying the unique public health models to the problem of violence and injuries (see Box 2). Many ministries of health do not yet fully realize how central their work is in these areas, and as a result are not yet contributing sufficiently to injury prevention efforts. Individual ministries of health will be at different stages in developing violence and injury prevention infrastructure, but all must ultimately address the following areas:

- policy making;
- data collection;
- services for victims;
- prevention;
- capacity-building;
- advocacy.

Each of these areas is described in greater detail in this guide.

BOX 1**WORLD HEALTH ASSEMBLY RESOLUTIONS FOCUSING ON INJURY PREVENTION**

2004 – Road safety and health, WHA57.10

2003 – Implementing the recommendations of the *World report on violence and health*, WHA56.24

1998 – Concerted public health action on anti-personnel mines, WHA51.8

1997 – Prevention of violence, WHA50.19

1996 – Prevention of violence: a public health priority, WHA49.25

1974 – Prevention of road traffic accidents, WHA27.59

1966 – Prevention of traffic accidents, WHA19.3

The full texts of these resolutions are available at: www.who.int/violence_injury_prevention/resources/publications/en

1 The use of the term “victim” to describe an individual who has suffered violence or injuries and their consequences (or any negative health outcome) is the subject of an ongoing debate. This centres around whether terms such as “victim” are themselves disempowering. The use of the term “victim” in this document is intended to reflect the full scope of the effects of victimization, from mild short-term effects, through severe and chronic disability, to death. No implications about such matters as personal resilience are intended or should be assumed.

BOX 2

WHY SHOULD MINISTRIES OF HEALTH TAKE A LEADING ROLE IN VIOLENCE AND INJURY PREVENTION?

- **Duty.** The health sector's mandate includes preventing and responding to all major causes of morbidity and mortality. Violence and injuries account for 9% of global mortality and 16% of global disability.
- **Economic interest.** The health sector absorbs a substantial portion of the direct costs arising from injury and violence. Injuries and violence globally account for a large proportion of health-care costs – including emergency department visits, surgery and psychological care.
- **Uniqueness of approach.** Public health offers a unique scientific and prevention-oriented approach to the problem of violence and injuries – something not offered by most other sectors in the field.
- **Uniqueness of position.** The ministry of health is uniquely positioned to collect data, analyse risk factors, provide emergency and long-term care, coordinate multisectoral prevention efforts across a range of sectors, and campaign for political and legislative change. In many countries, if the ministry of health does not conduct these activities in the field of violence and injury prevention, no other body will.



Section 2

Organizing the ministry of health

2.1 FOCAL POINTS

The first step in establishing a violence and injury prevention unit is the appointment of a violence and injury focal point in the ministry of health. The role of this focal point is to coordinate management and prevention efforts within the ministry, as well as between the ministry and other institutions, both national and international, and to ensure that such efforts take hold. Ideally, focal points should be assisted by a unit with several other staff members, as a focal point's tasks require the support of others with complementary expertise. Focal points should be knowledgeable about public health in general and injuries and violence prevention in particular. As they may need special further training, they may want to look to those schools of public health that offer violence and injury prevention courses. Liaising closely with their counterparts in the health ministries in other countries of their region, as well as outside the region, will greatly benefit focal points and their units.

CORE COMPETENCIES AND TERMS OF REFERENCE FOR VIOLENCE AND INJURY FOCAL POINTS IN THE MINISTRY OF HEALTH

The core competencies for focal points in the ministry of health include the ability to:

- produce results;
- adapt in a changing environment;
- encourage integration and teamwork;
- ensure the effective use of resources;
- promote multisectoral partnerships;
- carry injury prevention programmes to successful outcomes;
- encourage innovation;
- respect personal and cultural differences;
- lead with examples to others.

The focal points in the ministry of health have roles at both national and international levels. These roles are described below.

National roles:

- to identify key figures in injury and violence prevention, at both national and local levels, and to facilitate their involvement;
- to promote injury and violence prevention inside the ministry and with external partners;
- to ensure that injury and violence prevention becomes an integral part of national and local public health plans and strategies;
- to oversee the production and dissemination of relevant documents, including national reports;

- to lead the development of a national plan of action;
- to coordinate national efforts to collect and disseminate data and other relevant information;
- to promote the implementation and evaluation of proven prevention programmes;
- to review the delivery of health services and to suggest improvements so as to provide optimal support to victims.

International:

- to promote the implementation of relevant international and regional policies and strategies and assist in monitoring their progress;
- to act as national contact point with relevant WHO programmes;
- to coordinate the dissemination of international information;
- to coordinate the national response to international surveys;
- to share the lessons learnt in the design, implementation, monitoring and evaluation of national programmes and activities;
- to encourage the active involvement of the country, as regards injury and violence prevention, on the world stage – for instance, by hosting meetings or supporting resolutions.

2.2 LOCATION IN THE MINISTRY OF HEALTH

There are various places within the ministry where activities for injury and violence prevention can be located. Frequently, the unit is part of a broader programme dealing with noncommunicable diseases. In other ministries, it is situated with health promotion, mental health or epidemiology. Wherever it is placed, the ministry must above all recognize the unique identity and requirements of injury and violence prevention programmes. Once assigned a location within the ministry, the injury and violence prevention programme must coordinate its efforts with all other relevant units and departments. These units and departments include health promotion, child and adolescent health, women's health, mental health, school health, ageing, environmental health, disease surveillance, epidemiology and clinical services.

There is ongoing debate about the appropriateness of combining injury and violence prevention in a single unit. On the one hand, there are clear advantages in joining these activities. For example, data collection from the emergency department is more cost-effective when it combines both intentional and unintentional injury surveillance in one system. Treatment for both violence and injuries often occurs in the same facilities. In addition, violence and injuries have common risk factors, such as alcohol consumption, that are more effectively targeted through joint efforts.

Some issues, on the other hand, require responses that are specific to injury or else specific to violence. As an example, the prevention of road traffic injury requires the involvement of different sectors from that of child maltreatment. In many countries, both issues are taken on by the same person, but in others there are two focal points – one for violence prevention and another for injury prevention. Each health ministry needs to decide, on the basis of the country's conditions, whether to combine the two into one unit or else keep them separate. Even if they are separated, strong links should exist between the unit addressing violence and that addressing injuries.

2.3 INCLUSION IN NATIONAL HEALTH POLICIES AND PLANS

As injury and violence are major causes of morbidity and mortality, their prevention should be included in all national health and development plans. Policy documents from ministries of health should systematically include strategies and objectives for the prevention of injuries and violence.

2.4 FUNDING

The injury and violence prevention unit should receive a budget for conducting activities whose amount should match the scope and priority of planned activities. It should be included in the ministry of health's regular budget, and its allocation should take into account the magnitude of the problem and the potential for prevention. In countries that receive international development aid, requests for financial assistance could also include aid for injury prevention activities. Development aid agencies from countries such as Australia, Belgium, Canada, the Netherlands, Sweden and Norway have in the past supported a number of such activities. United Nations agencies (including the United Nations Development Programme, the United Nations Children's Fund, the United Nations Development Fund for Women and WHO), the World Bank and other international development banks, and certain foundations (such as the Open Society Institute and the FIA Foundation for the Automobile and Society), also support injury or violence prevention activities.

BOX 3

ESTABLISHING A NATIONAL VIOLENCE AND INJURY PREVENTION PROGRAMME IN MALAYSIA

In August 2003, the Malaysian Deputy Minister of Health announced the "Global campaign for violence prevention: Malaysia's response", in response to the WHA resolution on implementing the recommendations of the *World report on violence and health*. In doing so, the health ministry expanded Malaysia's existing national injury prevention programme to include violence prevention. The resulting Violence and Injury Prevention Unit – located in the Disease Control Division of the Department of Public Health – collaborates closely with other sectors to reduce the incidence of violence and injuries and improve services for victims.

BOX 4
ESTABLISHING A NATIONAL VIOLENCE AND INJURY PREVENTION PROGRAMME IN THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA

In June 2005, following earlier policy discussions during the national launch of the *World report on violence and health* in 2003, The former Yugoslav Republic of Macedonia announced the formation of a National Commission for Violence Prevention. This was to be led by the Ministry of Health and the Department for Injury and Violence Control and Prevention. The commission – charged with preventing violence and protecting the population from the effects of violence – includes representatives from the ministries of health, interior affairs, justice, education and science, labour and social policy, as well as from Macedonian National Television and a number of nongovernmental organizations. Its work builds on a number of national and local-level violence prevention projects.



Section 3

Policies and planning

Policy documents, such as national strategies and plans of action, are important for ensuring the good planning, coordinating and implementing of activities. There are several issues to consider with regard to plans.

- A section on injury and violence prevention should be included in every national plan for public health.
- Each ministry of health should develop a national plan of action on violence and injury prevention. This document will clearly define the ministry's planned activities and output and will provide more detail than what can be included in the overall public health plan.
- Where possible, an additional plan of action guiding collaboration between sectors is also desirable. Such a plan should be developed by representatives from the sectors concerned – such as those of health, transport, justice and education – setting out the activities and outcomes to be produced by each of them, in this way facilitating collaboration between the various ministries.

3.1 DEVELOPMENT OF A PLAN OF ACTION FOR THE HEALTH SECTOR

The ministry of health should take the lead in the development of an action plan for the health sector. Experience has shown that the process for developing a national or local policy document is as important as the document itself. The process should involve representatives from the government, nongovernmental organizations, academia and all other relevant sectors. A good starting point is to make an assessment of current activities in prevention efforts, of the shortcomings in these efforts, of the data available and of the main individuals and groups involved in prevention. Some countries, including Belgium, Costa Rica, Nepal and the United Kingdom of Great Britain and Northern Ireland, have chosen to summarize these findings in a national report. Such a document can provide a useful base for setting national policy and can also serve to raise awareness.

Formulating a national plan of action requires discussions about definitions, objectives and indicators. It should cover all relevant topics – data collection, services for victims, prevention, capacity-building and advocacy. In some countries, particular attention needs to be given to ensuring that stand-alone prevention efforts – such as those on child maltreatment, violence against women, road traffic injuries and suicide – are adequately incorporated into the broader agenda of violence and injury prevention. All plans of action should take into account the differing needs of women, men and children as victims of violence and injury. More information on policy creation can be found in the WHO publication, *Developing policies to prevent injuries and violence: a guideline for policy-makers and planners*.

3.2 MULTISECTORAL PLANS OF ACTION

Ideally, countries should also develop a plan of action to guide collaborative work between the health sector and other sectors. These include the sectors of transport, justice, education, labour, finance, law enforcement and social welfare, all of whom have important roles to play in the prevention of injury and violence. Coordinating efforts between these different sectors is not a straightforward task, particularly in countries where multisectoral projects are uncommon. However, it is something the ministry of health can greatly facilitate by supporting the joint development of a plan of action that formalizes the roles of the various agencies in violence and injury prevention work.

The need for such multisectoral work has long been recognized in other areas of public health. In malaria prevention, for example, the ministry of health has to work alongside the ministry of public works to drain swamps. There is no single way of approaching this task and the questions of whom to collaborate with and how to do so will depend on the particular project at hand. Collaborative efforts might, for instance, be strengthened by first disseminating reports from the health ministry's violence and injury prevention unit to other appropriate ministries; and by conducting in-house training within other ministries to raise knowledge and awareness on areas on which collaboration is to take place. Focal points and violence and injury prevention units should make a list of those policy issues which could most usefully benefit from wider support, and systematically pursue collaboration on those issues with other sectors.

3.3 PROMOTING LEGISLATION

To effectively prevent violence and injury, it is not only plans of action that are needed, but also laws. Because of its expertise, the data it possesses, and its role in treating victims, the ministry of health is well placed to support the development of legislation and to encourage its enforcement. This role is described in greater detail in Section 8.

BOX 5: THE SUCCESS OF BRAZIL'S HEALTH MINISTRY IN PROMOTING IMPROVED ROAD SAFETY LEGISLATION

In Brazil, the Ministry of Health recorded a dramatic increase in mortality from road traffic crashes between 1991 and 1997. In response to those data, legislators introduced the new Brazilian traffic code in 1998 to toughen the punishment for driver infractions and transfer administrative duties to local government. Between 1998 and 2001, mortality rates from road traffic injuries fell markedly. Subsequent analysis estimated that the new code had saved some 5000 lives nationally during this period. In 2001, a "National policy on morbidity and mortality reduction due to accidents and violence" was approved, allowing the Ministry of Health to build further violence and traffic accident prevention efforts on the groundwork laid by the new Brazilian traffic code.

Essential resources on policy and planning

Developing policies to prevent injuries and violence: a guideline for policy-makers and planners. Geneva, WHO, 2005. <http://www.who.int/violence_injury_prevention/policy/project/en/index.html>

Examples of more than 200 existing plans of action can be found at: http://www.who.int/violence_injury_prevention/publications/39919_oms_br_2.pdf

Section 4

Data collection

4.1 WHY COLLECT DATA?

An understanding of the extent of injuries and violence in a country is essential for developing effective policies and strategies to address the problem. Once an understanding is achieved, policy-makers are in a position to make informed decisions about a country's priorities in the light of competing demands on resources. For many countries, assessing the scale of injuries and violence is critical for harnessing the political will, public support and funding needed to launch programmes. Accurate data are also required to evaluate the evolving success and cost-effectiveness of strategies for injury and violence prevention. Since collecting data can be costly, it is important that what is gathered should be actively shared and used to advance prevention efforts, rather than kept confidential or collected simply for the sake of amassing statistics.

4.2 SOURCES OF DATA

Injury and violence-related data can be obtained from a wide range of governmental and nongovernmental sources (see Box 6). Most countries have some data available, such as a vital registration system for death-related information. Although these data may not be particularly detailed, and frequently underestimate the full extent and impact of injuries and violence, they are a good starting point as they highlight the leading causes of death nationally. Further research is often needed to determine if existing data accurately describe the magnitude of the problem.

Some countries may also have data on risk factors predisposing certain individuals or groups to suffer violence or injury, or to perpetrate violence. Government departments, including those of transport, education, welfare, labour, justice and the police – as well as national statistics bodies – all represent potential sources of data. As every data system has its weaknesses, it is best to compile and coordinate data from a number of such systems.

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BOX 6: POTENTIAL SOURCES OF DATA ON FATAL AND SEVERE INJURIES

The main potential sources of data on fatal and severe injuries are from:

- postmortem or pathology reports;
- police reports;
- emergency department injury records;
- hospital inpatient records;
- trauma registries;
- ambulance records;
- community-based or household surveys;
- transportation department reports;
- records of car insurance companies;
- occupational safety or industrial compensation records;
- rehabilitation centres;
- national insurance schemes.

4.3 ROLE OF THE MINISTRY OF HEALTH IN DATA COLLECTION

Because of its unique access to victims of injury and violence, the ministry of health plays a pivotal role in data collection. Without ministry of health data, national statistics on injury and violence are likely to be severe underestimates. The health ministry and its partner agencies should ideally collect the following information, preferably in a way that allows for disaggregation of data by age, sex and cause of injury:

- deaths from injury and violence;
- non-fatal injuries;
- disability resulting from all forms of injuries and violence;
- adverse health consequences other than injuries, resulting from violence and injury;
- the geographical distribution, settings and circumstances of incidents;
- the economic impact of injuries and violence, including costs to the health-care system.

Vital registration systems recording all deaths can be an excellent starting point. The ministry and partner agencies should promote data sharing between sectors, and make public the results of their findings so as to help advance prevention efforts.

In addition to data on injuries and violence, the ministry of health should also collect information on the types and distribution of available services, and the numbers of patients dealt with by these services. Ministries can then use this data to assess what is needed and what is still missing in terms of services, given the detailed information available on injuries and violence. Sometimes the ministry can collect the data itself. In other cases, it can convene the activity, by bringing together experts and supporting their research.

4.4 PUTTING INJURY INFORMATION SYSTEMS IN PLACE

Countries without specific injury surveillance systems can still make use of the data sources already mentioned to investigate the extent and nature of injuries and to monitor trends in injuries over time. Moreover, with a small amount of effort and at little or no additional cost, some of these sources of data can serve as the basis for an ongoing injury surveillance system. The main sources for this purpose are death certificate data, hospital inpatient records and emergency department records. WHO, with support from the United States Centers for Disease Control and Prevention, has developed the *Injury surveillance guidelines*, available online, offering step-by-step assistance on how to develop such surveillance systems. When using hospital-based data, experience from many countries has shown that the best way to proceed is to pilot the system in a major hospital first, and then make changes to the data collection form and expand the system to other hospitals. Many health ministries around the world have used these guidelines to set up injury information systems. In Paraguay, for example, the information system includes both private and public health facilities. South Africa has developed a fatal injury surveillance system (see Box 7), and Oman has an injury surveillance system including not only data from health facilities but also insurance company and police data.

Existing sources of data often underestimate the extent of injuries, for a variety of reasons. These include the fact that many injuries are not reported to police. In some countries, only 10%–20% of deaths of any type are officially registered with the government, and many injuries, even serious injuries, do not receive formal medical care. Hospital data, whether inpatient or emergency department, will also exclude people who do not seek care. This is the case with many victims of child maltreatment, intimate partner and sexual violence, and elder abuse. Conducting occasional **household surveys** is therefore recommended. To conduct household surveys, health ministries can use the guidelines, *Conducting community-based injury and violence surveys*, developed by WHO. Alternatively, they can insert questions on injury in a national Demographic Health Survey (see Box 8), to complement hospital and other existing data.

Specialized surveys may be appropriate for gaining a deeper understanding of specific forms of violence – such as child maltreatment, intimate partner and sexual violence, and elder abuse. Several countries – Cambodia, Colombia, Dominican Republic, Haiti, Peru and Zambia among them – have included a module on violence against women in their national health surveys. Resources such as *Researching violence against women: a practical guide for researchers and activists* and *Preventing child maltreatment: a guide to taking action and generating evidence* provide helpful guidance in this area.

Data should always be reported by age and sex to provide the fullest understanding of the problem. Data may also be recorded by subgroups known to be at increased risk – such as, for instance, aboriginal peoples, those of low socioeconomic status, or the disabled. The list of such susceptible groups varies from country to country. The ministry of health will also find data on the medical and social costs of injuries invaluable for advocacy purposes. Many high-income countries have already conducted such analyses (see Box 9). Whatever method is used to collect data, the *International classification for external causes of injuries* is a useful tool both for developing the questionnaire itself and after that for classifying the data.

4.5 SUPPLEMENTING AVAILABLE INFORMATION WITH RESEARCH

In most countries, information is lacking on risk factors, behavioural determinants, levels of awareness and risk perception, and readiness to change behaviour. Surveillance and surveys also cannot provide all the required information about risk factors, nor can they test good practices or interventions. These systems therefore need to be supplemented with rigorous research. Although the ministry of health does not usually conduct such studies itself, it should support research by collaborating with respected research institutions, such as schools of public health or universities, that can do the work.

4.6 COMPILING AND DISSEMINATING DATA

In some ministries, the ability to conduct data collection is severely limited through a lack of resources. Nevertheless, it should at least be possible to collect and compile existing data from other ministries and other sources. Data very often exist but lie unanalysed or unused. Such data – especially on leading causes of death, emergency department visits and economic costs – can be compiled at low cost and transformed into powerful material that demonstrates the need for prevention efforts.

BOX 7: FATAL INJURY SURVEILLANCE SYSTEM IN SOUTH AFRICA

In South Africa, the Ministry of Health commissioned the Medical Research Council to develop a National Injury Mortality Surveillance System. Information is collected on all deaths from unnatural causes that are subject to postmortem examination, at 35 forensic centres across seven provinces. Data from this system are linked with a national toxicology database. The information obtained – analysed and presented as an annual profile of fatal injuries in South Africa – drives policy and prevention efforts.

For further information see:
www.sahealthinfo.org/violence/nimss.htm

BOX 8: BUILDING ON EXISTING MECHANISMS OF DATA COLLECTION IN MOZAMBIQUE

In 2003, the Mozambique Ministry of Health asked for a module on injuries to be included in the Demographic and Health Survey. Thirteen questions that the ministry formulated on injuries and violence were included. A total of 12 315 households were interviewed across the country, from both urban and rural areas. Some 3% of households reported that a member had sustained an injury in the 30 days prior to the interview. From the survey, rates of fatal, non-fatal and injury outcomes were generated for advocacy and prevention purposes. The data can also be compared with rates found in subsequent surveys, in order to assess the impact of current efforts.

BOX 9: THE DUTCH BURDEN OF INJURY MODEL

In the Netherlands, the Ministry of Health led the development of the Burden of Injury model, based on the Dutch Injury Surveillance System which records injuries reported by representative Dutch emergency departments. The model measures health-care consumption, absenteeism, and direct and indirect medical costs, as well as changes in the quality of life for all patients with injuries treated at an emergency department, from the moment of injury until recovery or death. The information is collected from standard health-care registers and an ad-hoc patient follow-up survey, and is organized into patient groups. These groups share characteristics – such as age, gender and severity of the injury – with a predictive value for health-care consumption, absenteeism and quality of life. The Ministry of Health makes use of this valuable information to set priorities in injury prevention.

Essential resources on data collection

Ellsberg M, Heise L. *Researching violence against women: a practical guide for researchers and advocates*. Geneva, WHO, 2005. <<http://www.who.int/gender/documents/en/>>

Holder Y et al., eds. *Injury surveillance guidelines*. Geneva, WHO, 2001. <http://whqlibdoc.who.int/hq/2001/WHO_NMH_VIP_01.02.pdf>

Conducting community-based injury and violence surveys. Geneva, WHO, 2004. <<http://whqlibdoc.who.int/publications/2004/9241546484.pdf>>

WHO-ISPCAN. *Preventing child maltreatment: a guide to taking action and generating evidence*. Geneva, WHO, 2006. <http://whqlibdoc.who.int/publications/2006/9241594365_eng.pdf>

ICECI Coordination and Maintenance Group. *International Classification of External Causes of Injuries (ICECI)*. Consumer Safety Institute, Amsterdam; and AIHW National Injury Surveillance Unit, Adelaide, 2004. <<http://www.iceci.org>>

Section 5

Services

Survivors of injury and violence often require extensive treatment and care to prevent their dying or becoming disabled and to enable their recovery and rehabilitation.

In most countries, the health ministry is responsible for planning and ensuring such services. In order to improve outcomes, the full spectrum of care must be tackled – from pre-hospital care, through care at fixed facilities (including clinics and hospitals, with both initial emergency care and definitive care), to rehabilitation, social reintegration and recovery services. Such services are still not universally available, and health ministries need to concentrate on improving access to them.

5.1 PRE-HOSPITAL CARE

The consequences of serious injuries and violence – including death, disability and long-term morbidity – can often be prevented by prompt and efficient pre-hospital trauma care. Pre-hospital care covers services provided on the site where the injury occurred and the transport of victims to a health-care facility. It includes both the formal emergency ambulance services – available to less than half the world's people – and informal systems. In informal services, those injured or ill are transported to sites of care by bystanders, relatives, commercial drivers and others, sometimes with first aid being provided. Health ministries should help the various sectors, as well as local communities, to strengthen pre-hospital care systems, ensuring that they are well integrated with other public health and health-care infrastructure.

All formal emergency medical services, in both the public and private sector, should include the following:

- minimum standards for training and certifying staff;
- minimum standards for equipment and supplies;
- methods for assuring and promoting these minimum standards;
- a sufficient number of ambulance stations and of units on duty;
- appropriate administration – including quality improvement monitoring and medical oversight of non-medical personnel;
- the coordination of the various ambulance services operating in a given area;
- the coordination of emergency medical services with other emergency response systems, including the fire and police services;
- data collection for the purpose of injury surveillance.

In areas with no formal emergency medical services, ministries of health can either build on existing informal systems or start a new formal service, depending on circumstances. Pilot programmes in several countries have shown the potential benefits of building on existing informal systems. This has been the case with first-aid training for commercial drivers in Ghana, in areas where the drivers take victims to hospitals; and in training and equipping village health workers in Cambodia, integrating them into networks of pre-hospital care. Because formal emergency medical services can be expensive, cost and sustainability should be considered carefully before creating new systems. Formal emergency medical services should always be evaluated and monitored. The evaluation and monitoring should also include a network of first responders other than ambulances, such as police and fire services, and even the lay public. The document *Prehospital trauma care systems* provides guidance to health ministries in this field.

5.2 CARE AT FIXED FACILITIES

Improving the organization and planning for trauma care can lead to reasonable minimum levels of care for victims of injury or violence and reduce the number of deaths due to medically preventable causes. To improve organization and planning, health ministries should focus on the following elements:

- **Adopting a core set of essential trauma care services.** A core set of essential trauma care services should be defined and ensured for all victims treated at facilities supervised by the health ministry. Such essential services, and the resources necessary to make sure they work properly, are described in WHO's *Guidelines for essential trauma care*.
- **Training.** Essential trauma care skills should be included as core competencies in the curricula of schools of medicine, nursing and other health disciplines. Continuing education in trauma care should be promoted and made mandatory for all practitioners regularly providing trauma care.
- **Quality improvement programmes.** Such programmes should be put in place to ensure that the prescribed minimum human and physical resources are of sufficient quality, and are promptly available to all who need them. Quality improvement programmes for trauma care are at present rare and should be a major focus for ministries of health.
- **Coordination between health-care facilities.** Coordination between health-care facilities should be improved by establishing protocols for inter-hospital transfer and standardizing the criteria for referral of injuries to higher levels of care.

5.3 REHABILITATION AND INTEGRATED SERVICES FOR VICTIMS

Regardless of how they acquired their injuries, all victims will require a wide range of integrated rehabilitative services to minimize their functional disabilities and hasten their return to active life. These services fall into a number of fields beyond medical care, and include physical therapy, mental health, legal and forensic services. In many countries, poor medico-legal care has had damaging consequences, including the renewed traumatization of the victim, and has compromised forensic evidence. Ministries of health should establish minimum standards for these services and for collaboration among them.

People with physical and mental disabilities often suffer discrimination and as a result lack access to services. Ministries of health should pay particular attention to ensuring accessibility of services to those with disabilities and should also lead efforts to combat stigmatization and discrimination against disabled people.

The specific needs of victims of particular forms of violence – intimate partner and sexual violence, child maltreatment, self-harm, and elder abuse – also deserve particular attention in the health sector response. People who have experienced these forms of violence are often reluctant to discuss their cases, while at the same time urgently needing care for the non-physical consequences of the violence they have suffered. Formal referral procedures and protocols determining interaction with other sectors and services should be developed, and should take into account the special needs of both male and female victims of violence. In some situations, it may be best to create specialized health services for victims of particular categories of violence; in other situations, care can be integrated into existing services and systems.

Ministries of health should undertake the following actions to strengthen rehabilitation and integrate services:

- **conduct an assessment**, determining the current status of rehabilitation services and identifying deficiencies;
- **develop plans to correct deficiencies** – plans that may include training, setting up protocols and securing essential equipment for rehabilitation;
- **develop systematic referral procedures** to improve the coordination of physical, mental health, legal and other rehabilitation services. Whenever possible, the provision of services should be integrated into a single site. Services for female victims may be integrated into reproductive health services.
- **develop national standards for rehabilitation services** to be enforced at various levels of care, including provision of both medical and medico-legal care in cases of violence;
- **train health professionals to identify victims of violence and provide victims with comprehensive care** – including health professionals in emergency departments, primary and reproductive health care, and specialized facilities such as mental health centres.

BOX 10: ONE-STOP CRISIS CENTRES FOR SEXUAL VIOLENCE VICTIMS IN MALAYSIA

In 1993, emergency department staff in Kuala Lumpur, Malaysia, established the country's first *One-Stop Crisis Centre*, providing a coordinated interagency response for victims of sexual violence. The following year, the Women's Crisis Centre established a similar centre in another part of Malaysia. The Ministry of Health supported the development of both centres and in 1996 issued a directive to all government hospitals to establish a one-stop crisis centre. By 1998, as a result of this directive and of the efforts of several agencies, 94 centres were operating in public hospitals around the country. The centres provide medical, psychological, social, forensic and legal services, all at a safe, private location.

BOX 11: THE ROLE OF VIET NAM'S HEALTH MINISTRY IN IMPROVING TRAUMA CARE

Viet Nam's "National policy on accident and injury prevention, 2002–2010" assigned to the Ministry of Health the lead role in strengthening trauma care services. To this end, the ministry had translated into Vietnamese WHO's *Guidelines for essential trauma care* and *Prehospital trauma care systems*. It then used the translated guides to assess trauma care capabilities nationally, and as a result produced clear programme priorities. One major priority was to assure the provision of certain important, but low-cost equipment and supplies, primarily through improved organization and planning. The Ministry of Health has also been promoting the development of new pre-hospital care services through its project to improve coordination at community level for referrals to emergency and trauma. This project has led to advances in training, logistics and telecommunications for pilot systems for emergency medical care in several provinces.

Essential resources on services for victims

Prehospital trauma care systems. Geneva, WHO, 2005. <<http://whqlibdoc.who.int/publications/2005/924159294X.pdf>>

Guidelines for essential trauma care. Geneva, WHO, 2004. <<http://whqlibdoc.who.int/publications/2004/9241546409.pdf>>

The section of the WHO web site dealing with services for victims contains several country reports and documents and other resources for improving trauma care. It can be found at: <http://www.who.int/violence_injury_prevention/services/traumacare/en/index.html>

Section 6

Prevention

Prevention concentrates upon identifying ways to keep people from committing acts of violence and of stopping the events that lead to unintentional injuries from occurring. It is achieved by removing or reducing the underlying causes and risk factors. Effective prevention saves lives, reduces disabilities and other health consequences, and is increasingly being shown to be cost effective.

The objectives of violence and injury prevention are thus very similar to the objectives of other public health programmes, such as the prevention of HIV/AIDS, malaria, and smoking-related disorders.

6.1 ROLES FOR HEALTH AND OTHER SECTORS

The prevention of violence and injuries also shares with other public health priorities the fact that the solutions usually require the involvement of a range of sectors – addressing the underlying economic, social, legal and environmental factors. Health is often well placed to coordinate, or at least facilitate, such multisectoral interventions. The prevention of smoking-related disorders, for example, is a public health responsibility, but carrying out prevention interventions involves sectors such as agriculture, industry, commerce, hospitality, entertainment, advertising and the media. For violence and injury prevention, the relevant sectors include those of criminal justice, education, social welfare, transport, housing, commerce and the media, as well as associations representing victims or other groups of society. Depending on the specific prevention issue, the role of the health sector vis-à-vis the other sectors will vary. For poisoning, fires, drowning and falls, health is likely to have a lead role in coordinating, implementing and monitoring the response. For violence and road traffic injuries, by contrast, the role of health can range from leading (in the case of preventing suicides) to advocacy and evaluation (in the case of laws on blood alcohol content), with the criminal justice and transport ministries often taking a more central role in implementation.

6.2 FOUR-STEP PUBLIC HEALTH APPROACH

Irrespective of the sectors involved in a prevention strategy, the four-step public health approach provides a model for designing, evaluating, and monitoring interventions.

FIGURE 1: THE PUBLIC HEALTH APPROACH



- Step 1:** Collecting data on the magnitude, characteristics, extent and consequences of the problem at the local, national and international levels.
- Step 2:** Identifying causes of the problem, as well as factors increasing or decreasing individual susceptibility to the problem, and examining how these factors might be modified.
- Step 3:** Designing, implementing, monitoring and evaluating interventions aimed at preventing the problem, based on the information gathered in steps 1 and 2.
- Step 4:** Disseminating information on the effectiveness of interventions; implementing effective interventions on a larger scale; and evaluating the cost-effectiveness of larger-scale implementation.

Whether for preventing violence or injuries, this approach must be based on high-quality, reliable information. Necessary elements, therefore, for successful prevention of violence and injury prevention are: research, routine data collection, and the monitoring and evaluation of programmes.



6.3 PREVENTION STRATEGIES

Table 2 lists a number of selected interventions to prevent violence and injuries. The interventions are grouped according to the types of injury and violence problems they address. The table indicates the effectiveness of each intervention, according to current knowledge, and the role of the health sector in designing and implementing the intervention. Only the main types of fatal and non-fatal violence and injury are included. Scientifically evaluated interventions, however, do exist for many types of injury not listed in the table, such as occupational injuries and sports-related injuries.

While the role of the health sector for each intervention is stated in the table, this role will nonetheless tend to vary depending on particular local circumstances. In some countries, for instance, teaching people to swim, in order to prevent drowning, may be led by the education sector rather than the health sector. Source material for this table can be found in the *World report on violence and health* and the *World report on road traffic injury prevention*, in addition to other scientific literature.

TABLE 2: SELECTED VIOLENCE AND INJURY PREVENTION INTERVENTIONS, BY CAUSE, EFFECTIVENESS AND HEALTH SECTOR ROLE

	Intervention	Effectiveness	Health role
INTENTIONAL AND UNINTENTIONAL INJURIES			
	Reducing the availability of alcohol during high-risk periods	Promising	Lead
	Reducing economic inequalities	Promising	Advocate, collaborate, evaluate
	Strengthening social security systems	Unclear	Advocate, collaborate, evaluate
	Stand-alone education programmes focusing only on changing risky behaviour	Ineffective	Discourage
INTENTIONAL INJURIES			
Child maltreatment	Improving the quality of and access to prenatal and postnatal care	Promising	Lead
	Training health-care providers to detect child maltreatment	Unclear	Lead
	Home visitation programmes	Effective	Lead
	Training programmes for parents	Effective	Lead
	Preventing unintended pregnancies	Promising	Lead
Youth violence	Life skills training programmes	Effective	Advocate, collaborate, evaluate
	Preschool enrichment, to strengthen bonds to school, raise achievement and improve self-esteem	Effective	Advocate, collaborate, evaluate
	Family therapy for children and adolescents at high risk	Effective	Lead
	Home–school partnership programmes promoting the involvement of parents	Promising	Advocate, collaborate, evaluate
	Educational incentives for at-risk high-school students	Effective	Advocate, collaborate, evaluate
	Peer mediation and counselling	Ineffective	Discourage
	Education on the dangers of drug use	Ineffective	Discourage
Intimate partner & sexual violence	School-based programmes to prevent violence in dating relationships	Effective	Advocate, collaborate, evaluate
	Training health-care providers to detect intimate partner violence and to refer cases	Unclear	Lead
Elder abuse	Building social networks of older people	Promising	Lead
	Training older people to serve as visitors and companions to individuals at high risk of victimization	Promising	Lead
	Developing policies and programmes to improve the organizational, social and physical environment of residential institutions for the elderly	Promising	Lead
Self-inflicted violence	Restricting access to the means of self-inflicting violence – such as to pesticides, medications and unprotected heights	Effective	Lead
	Preventing and treating depression, alcohol and substance abuse	Effective	Lead
	School-based interventions focusing on crisis management, the enhancement of self-esteem, and coping skills	Promising	Advocate, collaborate, evaluate
All types of violence	Reducing demand for and the availability of firearms	Promising	Advocate, collaborate, evaluate
	Sustained, multimedia prevention campaigns aimed at changing cultural norms	Promising	Lead

	Intervention	Effectiveness	Health role
UNINTENTIONAL INJURIES			
Road traffic injuries	Increasing the legal age of motorcyclists and drivers from 16 to 18 years	Effective	Advocate, collaborate, evaluate
	Introducing and enforcing laws on blood alcohol concentration limits	Effective	Advocate, collaborate, evaluate
	Graduated driver licensing systems	Effective	Advocate, collaborate, evaluate
	Traffic-calming measures	Effective	Advocate, collaborate, evaluate
	Daytime running lights on motorcycles	Effective	Advocate, collaborate, evaluate
	Introducing and enforcing seat-belt laws	Effective	Advocate, collaborate, evaluate
	Child-passenger restraints	Effective	Advocate, collaborate, evaluate
	Introducing and enforcing motorcycle helmet laws	Effective	Advocate, collaborate, evaluate
	Speed-reduction measures	Effective	Advocate, collaborate, evaluate
Fires	Electrification of housing	Promising	Advocate, collaborate, evaluate
	Banning the manufacture and sale of fireworks	Promising	Lead
	Reducing storage of flammable substances in households	Promising	Lead
	Smoke alarms and detectors	Promising	Advocate, collaborate, evaluate
	Improving building standards	Promising	Advocate, collaborate, evaluate
	Modifying products – for example, kerosene stoves, cooking vessels and candle holders	Promising	Advocate, collaborate, evaluate
Poisoning	Child-resistant containers	Effective	Lead
	Poison-control centres	Effective	Lead
	Better methods of storage, relating both to the nature of storage vessels and where they are placed	Effective	Lead
	The use of warning labels	Promising	Lead
Drowning	Use of personal floatation devices	Effective	Lead
	Introducing and enforcing laws on pool fencing	Effective	Lead
	Teaching how to swim	Effective	Lead
	Covering bodies of water, such as wells	Effective	Lead
	Safety standards for swimming pools	Promising	Lead
	Clear and simple signage	Promising	Lead
	Properly trained and equipped lifeguards	Promising	Lead

continued overleaf

TABLE 2 contd.

	Intervention	Effectiveness	Health role
UNINTENTIONAL INJURIES			
Falls	Safety mechanisms on windows, such as window bars in high-rise buildings	Effective	Lead
	Stair gates	Effective	Lead
	Impact-resistant surfacing material on playgrounds	Effective	Lead
	Safety standards for playground equipment	Promising	Lead
	Muscle-strengthening exercises and balance training for older adults	Promising	Lead
	Checking and if necessary modifying potential hazards in the home, where there are individuals at high risk	Promising	Lead
	Educational programmes encouraging safety devices to prevent falls	Promising	Lead

KEY TO TABLE

Effectiveness:

1. Effective: interventions evaluated with a strong research design, showing evidence of a preventive effect.
2. Promising: interventions evaluated with a strong research design, showing some evidence of a preventive effect but requiring more testing.
3. Unclear: interventions that have been poorly evaluated or that remain largely untested.
4. Ineffective: interventions evaluated with a strong research design, and consistently shown to have no preventive effect, or even to exacerbate the particular problem. It should be noted that the term 'ineffective' is used only in relation to the impact on injury prevention.

Health sector role:

1. Lead: The health sector has primary responsibility for carrying out the intervention and monitoring its impact on the problem.
2. Advocate, collaborate, evaluate: Primary responsibility for implementation lies with another sector, but health has a crucial role in calling for the intervention, collaborating with other sectors in its implementation, and monitoring the intervention's impact.
3. Discourage: Continued investments in interventions that have been shown to be ineffective or counterproductive waste scarce resources and – where an intervention actually exacerbates the problem – are detrimental to public health. The role of the health ministry for such interventions is therefore to discourage their development and implementation by any sector, and to offer alternatives where they exist. While the public health sector should discourage such interventions as means of preventing violence or injury, they may well be effective in preventing other civic and health problems. The term "Discourage" should not, therefore, be understood as a statement on the absolute efficacy of these programmes, but only on their efficacy in the context of injury and violence prevention.

6.4 INDICATORS AND MONITORING

From the outset, national policies and plans must include efforts to monitor the effectiveness of violence and injury prevention programmes. Measures of effectiveness should cover the short term, the middle term and the long term. It is particularly important to establish baseline measurements *before* an intervention is implemented.

As with other public health problems – such as HIV/AIDS, malaria and smoking-related disorders – monitoring at the population level is typically achieved by setting up indicators to track changes in the nature and extent of both the problem being addressed and of the risk factors. With HIV, for instance, incidence rates of infection and rates of condom use might be measured. Depending on the vital statistics and health information systems available, it may be possible in some places to monitor indicators using routinely collected information. Elsewhere, where information systems are less developed, and for behavioural indicators that cannot be measured through such systems, monitoring is done through periodic population-based surveys. These include such methods as surveys of crime victimization or youth risk behaviour, and the randomized testing for alcohol of pedestrians and drivers. By developing and monitoring indicators at the population level, ongoing feedback is provided on trends in the target problems and in the risk and protective factors. This feedback makes it possible to measure the impact of specific prevention policies and programmes.

6.5 CONSULTING WITH DIFFERENT SECTORS

Consulting with governmental and nongovernmental groups from different sectors is essential to ensure that they invest in a particular violence or injury prevention effort or policy. Doing so will, in turn, help bring about better coordination between the sectors. Attempting to involve every agency that appears relevant will not be easy. However, failing to consult a key group could damage the effort and result in that group rejecting the proposed programme.

Deciding which groups to consult is therefore important, and will be influenced by the setting in which the intervention takes place. At the start of a prevention programme, individuals from different sectors may tend to restrict themselves to the areas of their competence. Psychologists, for instance, may see their role as counselling victims of violence; the police may press for more resources to catch and punish criminals; and medical professionals may be preoccupied with issues of trauma care. For success in violence and injury prevention it is necessary to use these particular competence-based perspectives and skills, but to embed them in a broader outlook where there are shared priorities and goals.

BOX 12: INTERSECTORAL COLLABORATION IN SOUTH AFRICA

In South Africa, the Ministry of Health's Social Cluster developed a strategy for collaboration between sectors to prevent deaths from unnatural causes – including homicides, suicides and road traffic injuries. This included examining the prevention measures taken by different government departments and comparing them with WHO's recommendations on preventing homicides, suicides and road traffic injuries. The government departments involved in the process were those of health, education, correctional services, social development and transport, as well as the South African police service.



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Essential resources on prevention and evaluation

Violence and injury prevention

Krug EG et al., eds. *World report on violence and health*. Geneva, WHO, 2002. <http://www.who.int/violence_injury_prevention/violence/world_report/en/index.html>

Preventing violence: a guide to implementing the recommendations of the World report on violence and health. Geneva, WHO, 2004. <<http://whqlibdoc.who.int/publications/2004/9241592079.pdf>>

Preventing child maltreatment: a guide to taking action and generating evidence. Geneva, WHO, 2006. <http://whqlibdoc.who.int/publications/2006/9241594365_eng.pdf>

Peden MM et al., eds. *World report on road traffic injury prevention*. Geneva, WHO, 2004. <http://www.who.int/violence_injury_prevention/publications/road_traffic/world_report/en/index.html>

Addressing violence against women and achieving the Millennium Development Goals. Geneva, WHO, 2004. <http://www.who.int/gender/documents/women_MDGs_report/en/>

Helmets: a road safety manual for decision-makers and practitioners. Geneva, WHO, 2006. <http://www.who.int/violence_injury_prevention/publications/road_traffic/helmet_manual.pdf>

Road traffic injury prevention training manual. Geneva, WHO, 2006 <http://whqlibdoc.who.int/publications/2006/9241546751_eng.pdf>

Child and adolescent injury prevention. Geneva, WHO, 2005. <http://whqlibdoc.who.int/publications/2005/9241593415_eng.pdf>

Evaluation

Handbook for process evaluation in noncommunicable disease prevention. Copenhagen, WHO Regional Office for Europe, 1999. <<http://dosei.who.int/uhtbin/cgiisirs/60n0oia4Y2/116570044/9>>

Rootman I et al., eds. *Evaluation in health promotion: principles and perspectives*. Copenhagen, WHO Regional Office for Europe, 2001. <http://www.euro.who.int/InformationSources/Publications/Catalogue/20010911_43>

Section 7

Capacity-building

The prevention of injury and violence requires knowledgeable and skilled staff, supportive structures and good networks. All of these areas may need strengthening, and ministries of health have a vital role to play in achieving this.

7.1 BUILDING HUMAN RESOURCE CAPACITY

To help build human resource capacity, proper training is essential. This applies to all individuals, from staff members, including focal points, to senior policy-makers. The goal is to have professionals, from a wide range of backgrounds, operating in the field of injury and violence prevention with a common base of knowledge and skills. Training in injury and violence prevention has up to now not been routinely addressed. Health ministries can address this shortcoming by focusing on:

- **Training on injury and violence prevention.** Such training should routinely take place, both in academic institutions – within schools of public health, nursing and medicine – and as in-service training for medical personnel, data collectors and relevant staff in other government departments. A useful tool for this purpose is TEACH-VIP, a modular training curriculum on injury and violence prevention. TEACH-VIP was developed by WHO with the support of a network of experts around the world, and has been successfully used by government agencies, injury centres, nongovernmental organizations and academic departments.
- **Technical and professional skill development.** Relevant technical skills include carrying out research and setting up surveillance systems. Professional skills include fundraising, communications, advocacy work and leadership. The ministry of health should identify key individuals and support their training – including through exchange visits, collaboration with other institutions and mentoring.

At the time of publication of this document, WHO is setting up a global mentoring programme for injury prevention. This will link individuals from different institutions with the purpose of developing their skills.

7.2 MAINTAINING EFFECTIVE NETWORKS

Collaborative networks – both within countries and between countries – are an important element of injury and violence prevention. Within countries, prevention efforts are likely to be distributed across a range of public and private sectors and for this reason require good coordination. Ministries of health can help by setting up national networks linking sectors for more efficient exchange of information, planning and action. Between countries, technical exchanges can speed the uptake of best practices in the field and help formulate policy agendas. WHO is actively supporting regional and global networks of ministry of health focal points. These networks provide a special link, connecting focal points with all the technical resources and other forms of assistance that their counterparts in other countries, as well as WHO, can offer.



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BOX 13: BUILDING HUMAN RESOURCE CAPACITY IN CHINA

In China, the National Centre for Chronic and Noncommunicable Disease Control and Prevention (NCNCD) – part of the Ministry of Health – held a national training workshop on injury prevention in November, 2004. Attending were 67 public health employees working in injury prevention, covering most of China's provinces, only a quarter of whom had received more than six hours of prior training in the field. Twenty-four lessons from TEACH-VIP were translated into Mandarin, adapted for the local context, and supplemented at the workshop with exercises and a panel discussion. NCNCD played a central role in identifying relevant participants from around the country, organizing the trainers, adapting and translating training materials, and providing logistic and administrative support. An evaluation six months later showed that over 95% of the trainees were using information learnt from the TEACH-VIP workshop. A year later, national hospital-based injury surveillance systems were being operated by participants from the workshop in all provinces, and 11 community injury intervention programmes had been set up with seed funding from NCNCD and the Ministry of Health.

BOX 14: TRAINING AND NETWORKING FOR FOCAL POINTS IN THE WHO EUROPEAN REGION

In June 2006, following a request from ministry of health focal points, WHO organized a training workshop in Salzburg, Austria, based on the TEACH-VIP curriculum. Thirty-nine focal points from 27 European countries attended. Topics covered were policy-making and planning, capacity-building, data collection, surveillance, injury and violence prevention, and the creation of partnerships. In an evaluation, participants at the workshop rated the training highly. The workshop was followed by the second annual meeting of violence and injury prevention focal points in the WHO European Region. At this gathering, focal points agreed to set up thematic working groups on regional issues in violence and injury prevention.

Essential resources on capacity-building

TEACH-VIP users' manual. Geneva, WHO, 2005. <http://whqlibdoc.who.int/publications/2005/9241593547_eng.pdf>

Section 8

Advocacy

Advocacy can be defined as raising awareness of an issue for the purpose of affecting the policies, programmes and resources devoted to it. It is a fundamental component of injury and violence prevention efforts. Because ministries of health generate much of the available data on injuries and violence and oversee the treatment of victims, they are well positioned to campaign for more attention to these issues. Two types of advocacy are relevant here.

ADVOCACY TOWARDS THE PUBLIC

Government-sponsored advocacy campaigns should inform people about the main injury and violence problems in the country and how these can be prevented. They should also correct public misconceptions surrounding the causes and preventability of injuries and violence. Such campaigns should be coordinated with the introduction of new laws and policies, so as to increase public awareness of them. Informational campaigns can accompany prevention efforts, highlighting, for instance, the unacceptability of violence against women and children or the importance of smoke detectors. Launches of new policies, programmes or publications on injury and violence often provide good opportunity for ministries of health to conduct advocacy efforts. Campaigns can also be built around high-profile events on the global calendar, such as:

- United Nations Global Road Safety Week;
- International Day for the Elimination of Violence against Women;
- International Day of Disabled Persons;
- World Day of Remembrance for Road Traffic Victims.

Involving prominent public figures and the local and national media in campaigns built around these events can boost their impact. If well planned and executed, these campaigns can help health ministries build broad coalitions for action. It is important, though, to state that stand-alone informational or publicity campaigns that are not linked to other longer-term interventions will generally not deliver significant and sustained reductions in violence and injury.

ADVOCACY TOWARDS OTHER SECTORS

Applying principles of prevention in the field of injuries and violence is an unfamiliar approach for many government ministries. Health ministry advocacy towards other government sectors therefore needs to explain the need to confront injury and violence and the advantages of the public health approach. This can be achieved through seminars, workshops and newsletters, and by inviting relevant groups to discuss their roles and responsibilities in prevention. Health ministries should employ the data they collect to inform decision-makers about the nature and scale of injuries and violence in their countries – including epidemiological data on the issue, the direct and indirect economic costs of injuries and violence, and proven and promising prevention measures. Ministries of health also sometimes need to call for government ministries, United Nations agencies and NGOs to collaborate on a particular health topic. Mobilizing a range of agencies in this way behind a common cause is itself a productive exercise.

With both types of advocacy, ministries of health should fully use all the resources available to them. These include local data, as well as the WHA and WHO Regional Committee resolutions on injuries and violence and the WHO *World reports* and their recommendations.

Nongovernmental organizations are another powerful source for health ministries to draw on in conducting advocacy. Indeed, in many countries, groups of victims of violence or road traffic injuries and their families are among the most vigorous in campaigning for prevention. Such groups have been active in pressing for stronger controls over firearms, action against sexual and child abuse, and improved legislation on road safety. Tragic incidents – such as suicides, shootings in schools or the violent death of a well-known person – often trigger huge public concern. If this concern is effectively channelled, it can produce a rapid and sustained increase in political commitment to primary prevention. Wherever appropriate, health ministries should support such nongovernmental efforts so as to further injury and violence prevention.

BOX 15: THE FOUNDING OF THE JAMAICAN CHAPTER OF THE VIOLENCE PREVENTION ALLIANCE

In 2004, Jamaica's Minister of Health set up the national chapter of the global Violence Prevention Alliance. Launching it, the minister reiterated the importance of the public health approach and the involvement of a range of diverse sectors in preventing violence. The Alliance globally has six objectives guiding its work:

- to increase collaboration and exchange of information on violence prevention;
- to support the implementation and monitoring of national plans of action to prevent violence;
- to enhance the capacity for data collection on violence;
- to promote the primary prevention of violence;
- to strengthen support services for victims of violence;
- to support the integration of violence prevention into social and educational policies.

To carry out these objectives, the Jamaican chapter has created a steering committee and a working group composed of representatives from a broad range of advocacy groups.

For more information on the Violence Prevention Alliance, see: <<http://www.who.int/violenceprevention/en/index.html>>.

Section 9

Conclusions

Violence and injuries account for 9% of global mortality and 16% of global disability, and are increasingly seen as a major public health issue. Prevention work by health ministries has expanded, but the ministries have often been unclear about what their responsibilities are in preventing injuries and violence.

This guide describes these responsibilities. It is intended to be a starting point for those ministries just now appointing focal points, and a support for further development for those with existing violence and injury prevention units. Such units should ideally encompass policy-making, data collection, services for victims, prevention, capacity-building and advocacy. In all of these areas, carrying out assessments and designing plans for action are important initial activities.

Violence and injury prevention cannot be undertaken by a single department or institution working in isolation. A coordinated response involving a wide range of sectors is absolutely essential for prevention efforts to succeed. The ministry of health should serve in turn as a leader, a facilitator and a participant in prevention efforts, depending on the nature of the problem.

The task may at times seem overwhelming, but countries around the world are proving by their example that the goals outlined in this document are attainable. All the same, even the most established violence and injury prevention unit can do more. WHO hopes that this guide will prove useful to all ministry of health prevention efforts in this field.

Box 16 is a simple guide for newly appointed focal points on setting up a violence and injury unit. There is, of course, no universal formula for this work. Each country has differing conditions and constraints. The steps outlined in the box are thus a general guide and will need to be adapted to the particular conditions of the country.

BOX 16: GETTING STARTED: SETTING UP A VIOLENCE AND INJURY PREVENTION UNIT

1. Collect and disseminate local and national data on violence and injuries, starting with the essential resources on data collection listed in Section 4 above. Some data may be publicly available on the Internet or in libraries. Other data will need to be obtained directly from records departments at hospitals, government agencies, insurance companies, national statistics offices or mortuaries. Representatives at these institutions may be willing to discuss proposals for improving data on violence and injuries. These data should be used for setting priorities and for advocacy from within the health ministry towards other government departments.

2. Identify those within the ministry working in fields related to injuries and violence – such as in women’s health, child health, clinical services, health promotion, substance abuse, emergency care and epidemiology. Meet with representatives from these departments to discuss their work on violence and injury prevention, and seek areas for future collaboration.

3. Compile a list of other governmental and nongovernmental organizations working in the field of violence and injury prevention. Meet with representatives from these groups to discuss their work and their priorities for violence and injury prevention, and establish areas for future collaboration.

4. Conduct an assessment based on the information gathered. Draw up a table on the leading causes of death, such as Table 1 in Section 1 of this guide. Consider answers to the basic questions:

- What are the key problems, locally and nationally, related to injuries and violence?
- What is being done to address them?
- What services are available for those affected by injuries and violence, and where are they located?
- What are the feasible priorities for action in the next few years?

5. Make international contacts. Join international exchange programmes, such as the network of ministry of health focal points and WHO’s mentoring programme.

6. Organize a conference for all groups and individuals involved in violence and injury prevention. Structure the meeting as a consultation so that those participating are seen as partners in the enterprise. The aim of the conference should be to produce an agreed outline of what needs to be done and to secure the collaboration of the participants. It may be useful to involve the relevant WHO country or regional office.

7. Develop a national report on injuries and violence in the country, based on the outcome of the conference and the assessment. This report should:

- include the existing data on epidemiology, risk factors and responses;
- list the main organizations involved;
- identify gaps in current efforts;
- be launched very prominently;
- serve as a major tool for advocacy and planning.

8. Set up a network to formulate a national plan of action based on the report, covering all the main areas described in this guide. Where possible, draw up an additional plan describing the roles of all the sectors involved in violence and injury prevention.

9. Start designing the programme. Work out methods of evaluating the programme, from the beginning. Seek political and financial support from the department and from other collaborators where this is necessary.

10. Collect data and measure the impact of programmes on an ongoing basis, and communicate this information to others. Stay informed about violence and injury prevention efforts nationally and internationally. Continue to be closely involved with all those with an interest in injury and violence prevention, possibly by means of an annual conference.

11. Build capacity, as the programme grows, through in-service training, mentoring and exchange programmes.

12. Conduct annual or biennial assessments of policies and planning, data collection, services for victims, prevention activities, capacity-building and advocacy. Restructure the programme according to feedback from these assessments, and as a result of changing national and local priorities in injury and violence prevention.



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