Strategic Plan for Injury Prevention and Control in South-East Asia

WHO Project: ICP DPR 001

World Health Organization
Regional Office for South-East Asia
New Delhi
April 2002
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1. INTRODUCTION

In 2000 an estimated 5.1 million people died due to injuries worldwide, accounting for 10% of the deaths due to all causes. This burden of injuries is projected to increase in the next decades if the current trend continues. Most of these deaths will occur in developing countries, as the lifestyles of people are undergoing rapid changes due to urbanization, industrialization, mechanization, and migration. Injury is a major contributor of ill health and disability. Injuries can occur everywhere, at home, at work, at public places or during recreational and leisure time activities.

It is estimated that more than a quarter of injury related deaths in the world occurred in the South-East Asia Region (SEAR) in 2000. Children saved today from nutritional and infectious diseases are killed and maimed by injuries in hundreds of thousands. In fact, road traffic injuries alone rank as the number one cause of burden of disease among children of 5 to 14 years, and number three cause among 15 to 29 years in 2000. This heavy burden at such an early age has long-term implications on the quality of life and economy of the nations.

2. INJURY PROBLEM AND PATTERNS

Injuries have been classified into two broad categories: unintentional injuries and intentional injuries. Unintentional injuries include road traffic injuries, falls, burns, poisoning, and drowning. Intentional injuries include into interpersonal violence/homicide, self-inflicted injuries/suicides and war. Injuries are also classified based upon the place of injury: domestic injuries, injuries at public places, and the settings of injuries: recreational injuries and occupational injuries (including industrial and agricultural injuries). Table 1 enumerates the common causes of injury in the Region.

Persons with these injuries frequently belong to poor and marginalized sections with limited access to health care, education and other development
## Table 1. Estimated number of deaths and disability adjusted life years (DALYs) due to injuries, South-East Asia Region, 2000 estimates

<table>
<thead>
<tr>
<th>Injury category</th>
<th>Number of Deaths</th>
<th>Number of DALYs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road traffic injuries</td>
<td>435 000</td>
<td>14 033 000</td>
</tr>
<tr>
<td>Poisoning</td>
<td>82 000</td>
<td>2 399 000</td>
</tr>
<tr>
<td>Falls</td>
<td>39 000</td>
<td>5 085 000</td>
</tr>
<tr>
<td>Fires</td>
<td>128 000</td>
<td>5 630 000</td>
</tr>
<tr>
<td>Drowning</td>
<td>97 000</td>
<td>2 752 000</td>
</tr>
<tr>
<td>Others</td>
<td>274 000</td>
<td>14 780 000</td>
</tr>
<tr>
<td><strong>Unintentional</strong></td>
<td><strong>1 055 000</strong></td>
<td><strong>44 680 000</strong></td>
</tr>
<tr>
<td>Homicides</td>
<td>77 000</td>
<td>2 241 000</td>
</tr>
<tr>
<td>Suicides</td>
<td>169 000</td>
<td>4 905 000</td>
</tr>
<tr>
<td>War</td>
<td>63 000</td>
<td>2 210 000</td>
</tr>
<tr>
<td><strong>Intentional</strong></td>
<td><strong>317 000</strong></td>
<td><strong>9 557 000</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1 372 000</strong></td>
<td><strong>54 236 000</strong></td>
</tr>
</tbody>
</table>


opportunities. Because of poor access to education, they have limited awareness of their fundamental right to safety. Since governments tend not to appreciate the magnitude of injury burden, it has resulted in failure to institute safety practices at all places, permitting development and use of unsafe products. The problem has been neglected for long because of absence of reliable data from health and related sectors underreporting or unsystematic reporting, and inadequate use of currently available information in policy-making.

It is estimated that for every death, nearly 10 - 20 are hospitalized, 50 - 100 receive emergency care in hospitals and hundreds of people sustain minor injuries (Figure 1). The resources spent towards care by individuals, families and governments are estimated to cost more than 2% of GDP, and could very well be in the range of 3 - 5 % of GDP in every country.
3. THE GLOBAL RESPONSE AND LESSONS LEARNT

The scenario as currently evident in developing countries existed in highly industrialized countries of the world in the 1970s. A great ideological transformation has taken place since ‘accidents’ once considered unpredictable and therefore, unavoidable are no longer considered “unavoidable”. A clear epidemiological understanding that injuries are due to interaction of human beings with products/vehicles in day-to-day environments has emerged. This has resulted in the formulation of programmes for injury prevention. Massive investments in health and related research and development of institutional mechanisms have yielded positive results. Numerous interventions as applicable to human beings, the products they use, the environments they live in and work with and the systems they are part of, have been modified, with rewarding results.

The scientific response to the problem of injuries has been developed on 4E’s, namely Education, Enforcement, Engineering, and Emergency care. The fifth E - Evaluation, has revealed what has worked and what has not worked. The sixth E - Economic benefits of injury prevention has added a new dimension to the way governments and societies view injuries. None of these are mutually exclusive. Judicious integrated, intersectoral coordinated efforts are known to yield best results.

Figure 1. Injury pyramid – South-East Asia

<table>
<thead>
<tr>
<th>Proportion</th>
<th>Estimates for South-East Asia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Death (1)</td>
<td>1.4 million*</td>
</tr>
<tr>
<td>Admission (10 - 20)</td>
<td>14-28 million</td>
</tr>
<tr>
<td>Emergency Care (50)</td>
<td>70 million</td>
</tr>
<tr>
<td>Minor injuries (&gt; 100)</td>
<td>140 million</td>
</tr>
</tbody>
</table>

The public health approach systematically examines the injury problem, determinants (risk factors), helps in developing interventions, and evaluating to examine the impact of interventions. A continuous application of these principles helps in establishing priorities and developing integrated interventions (Figure 2).

Five P’s Professionals, Policy-makers, Politicians, Press and Public have contributed to translating these concepts into everyday living. This strategy being intersectoral in nature, has drawn inputs from every discipline like engineering, medicine, law, social welfare, transport, education, and other fields (Figure 3).

Economic benefits from injury prevention programmes have shown that investment in health and safety yields short-term and long-term benefits for today and tomorrow. Societies and governments can save their precious resources by reducing the burden and impact of injuries. An investment in injury prevention and safety promotion is a benefit to society from the health, social and economic standpoints.

*Source: Violence Prevention: A Public Health Priority, Presentation for WHO 07/10/98 by the WHO Collaborating Centre on Injury Control - National Center for Injury Prevention and Control.*
4. INJURY PREVENTION AND CONTROL IN SEAR

The problem of injuries in member countries of the South-East Asia Region, though enormous, remains largely unrecognized. Even clear information on the number of deaths is not available due to problems of non-reporting and underreporting due to various reasons. WHO estimates reveal that nearly 1.4 million people lost their lives due to injury during 2000. The ratio of deaths, hospital admissions, emergency room registrations and hospital non-attending cases varies from 1:20-30:50-100 based on available epidemiological data. Nearly 100% of severe, 50-70% of moderate and 10-20% of mildly injured persons need short-term and long-term rehabilitation services. The economic costs of injuries are profound, with road traffic injuries alone costing 1-3% of GDP across countries. The social costs and hidden impact of injuries in terms of loss of schooling, absence from work, loss of productivity and psychological trauma are significant, though not quantified.
While significant progress has been made in highly industrialized countries, Member Countries of the South-East Asia Region are yet to identify and recognize injuries as a public health problem. Some contributing factors for this include: lack of research data, absence of mechanisms to develop and deliver injury prevention programmes, deficiency of effective systems to deal with the problem and several myths and misconceptions. Further, successful programmes of developed nations cannot be replicated in the South-East Asia Region due to social, cultural, economic and political diversities, as injury patterns, situations, circumstances, products and environments are different. The problem of injuries in its diversities has to be incorporated into policies and practices, along with development and implementation of Region and country-specific interventions.

To address the Region-specific issues and to develop a regional strategy, an intercountry consultation was organized with participation of representatives of all ten Member Countries and WHO staff working in the area of injury prevention and care. The consultation identified a series of activities, which could be implemented in the short-term, and some would need to be implemented over a longer period of time. For some problems no effective strategies were known and would need to be developed. Known strategies are suitable for immediate application.

Certain time-tested effective measures could be implemented to save lives without additional burden on the resources of governments. Helmet laws for cyclists and motorcyclists, strict laws for drunken driving, speed control, and increasing the visibility of vehicles are some examples of intervention to control road traffic injuries. To control domestic and agricultural injuries, increasing awareness about the use of pesticides, regulatory laws for safe houses, improving the design of certain hazardous equipment, safer stoves, and fencing of pools of water collected naturally and artificially to prevent drowning. Legal control over alcohol usage, strict prohibition of child labour, and other measures will reduce exploitation and violence. Institutional capacity building of the primary health care centres and professionals will strengthen capability to deal with injuries at the pre-hospital level, emergency, disaster preparedness and providing information on most recent trends for increasing public awareness on the issue.
5. REGIONAL PRIORITIES

At a recent intercountry consultation of experts and programme managers on injury prevention and control from South-East Asia, road traffic injuries were identified as the most common injuries in all countries except DPR Korea and Maldives (See Table 2). The second and third leading causes were occupational injuries and burns-related injuries, respectively. DPR Korea faced natural disasters to a greater extent while drowning was the commonest injury in Maldives. Injuries in the organized sectors were receiving some attention due to labour-related issues, while injuries in the unorganized industrial and agricultural sectors remain largely unrecognized. All countries of the Region were facing a major problem of intentional injuries especially among youth, women and children.

Table 2: Prioritization of Injury Problem in the Member Countries of WHO South-East Asia Region

<table>
<thead>
<tr>
<th>Area</th>
<th>BAN</th>
<th>BHU</th>
<th>DPRK</th>
<th>IND</th>
<th>INO</th>
<th>MAV</th>
<th>MMR</th>
<th>NEP</th>
<th>SRL</th>
<th>THA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road traffic injuries</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Burns and fire-related injuries</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work-related injuries</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poisoning</td>
<td></td>
<td></td>
<td></td>
<td>5</td>
<td>2</td>
<td>5</td>
<td>5</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drowning</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>6</td>
<td>3</td>
<td>1</td>
<td>6</td>
<td>7</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Disaster</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Violence + suicides</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Falls</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

(1 = highest priority, 7 = lowest priority)

1 Prioritized by participants from the Member Countries in the intercountry consultation
2 BAN = Bangladesh, BHU = Bhutan, DPRK = Democratic People’s Republic of Korea, IND = India, INO = Indonesia, MAV = Maldives, MMR = Myanmar, NEP = Nepal, SRL = Sri Lanka, THA = Thailand
6. ROLE OF HEALTH SECTOR IN INJURY PREVENTION

In the past, it was considered that the role of the health sector in injury prevention and management was limited. The role of the health sector role has to be reoriented and extended beyond the provision of acute and rehabilitative care into the areas of prevention. Health agencies can provide the requisite inputs towards planning, programming, implementing and evaluating injury prevention programmes. The following is a brief summary of the expanded role the health sector can play in injury prevention and care.

- Initiating surveillance to determine injury patterns - problem and causes of all types of injuries. Health professionals can identify individuals at high risk - the situation - circumstance - objects producing injury and from their injury records.
- Strengthening health information within the health sector, for recognition of full impact on mortality, morbidity and disability.
- Collaboration with related sectors for research by health professionals.
- Strengthening of trauma care by means of integrated trauma care services, improved notification methods, rapid transport of victims and suitable referral systems based on injury triage. Uniform protocols, minimum guidelines and provision of facilities in emergency care, specially at peripheral levels should be given priority.
- Quantifying the funds being spent by health care institutions for care towards injury patients. The amount of funds spent in these directions needs to be understood to influence policy-makers towards prevention efforts.

As shown in Figure 4, a large amount of health care budget in injury area is spent on curative care in major and bigger hospitals, especially in urban areas. However, the burden and impact is more pronounced at family levels, especially among the vast rural population. This imbalance needs to be examined and prevention and safety promotion issues require greater support at all levels.
Applying the principles of primary health care (appropriate technology, intersectoral cooperation, and equitable distribution of resources and community participation) for developing integrated injury prevention programmes.

Increasing awareness among engineers, road builders, vehicle manufacturers, product-makers, police personnel, lawyers, social service agencies, media personnel and policy-makers on developing the right standards, guidelines, and laws along with professionals from other sectors.

7. CRITICAL CONCERN REGARDING INJURY PREVENTION AND CARE IN SOUTH-EAST ASIA REGION

- Safety and injury prevention is not a priority in the health and development agenda.
- There is no national injury prevention policy and programme in Member Countries.
- Information on the enormous burden on health sector resources remains largely unknown.
Injuries are considered individual, police, legal, transport problems and not health problems.

Product development lacks safety measures.

Severe paucity of institutions, professionals and resources within the health sector for injury prevention.

Ongoing initiatives are ad hoc and crisis-oriented rather than evidence-based and scientific.

Programmes face logistical-managerial problems for coordination, implementation and evaluation.

8. WHO SEARO MISSION AND OBJECTIVES FOR INJURY PREVENTION AND CONTROL

The overall goal of the WHO-SEARO programme on injury prevention is to “incorporate injury prevention programme in the health and development agenda in the South-East Asia Region” by:

- helping Member Countries to place injuries on the public health agenda and enabling nations to formulate national policies and programmes.
- enabling countries to initiate capacity building exercises through human resource development for prevention, care and rehabilitation of injured.
- promoting evidence-based policy and program development through regular and systematic collection of information from epidemiological surveillance and research.
- assisting countries to implement technologically appropriate and cost-effective solutions towards injury prevention and control.
- collaborating with sectors other than health for strengthening injury prevention care and rehabilitation systems.
- supporting countries to develop scientific policies and programmes by developing guidelines for prevention through exchange and sharing of information across countries.

9. REGIONAL STRATEGY FOR INJURY PREVENTION

- To develop national policy and programme in the countries of South-East Asia;
To strengthen national capacity for injury prevention multisectoral involvement, care and rehabilitation through infrastructure strengthening and human resource development.

To establish efficient and effective surveillance systems for evidence-based policy.

**Expected Outcome**

- Development of national injury prevention policy in at least 50 per cent of the countries of the South-East Asia Region;
- Establishment of separate unit in the Ministry of Health to coordinate injury prevention programme;
- Implementation of national level multisectoral programme in priority areas of injuries;
- Development of group of professionals to conduct research, implement pre-hospital care, injury surveillance and advocacy for safety and injury prevention and care;
- Earmarking for adequate resources for injury prevention activities;
- Incorporation of injury epidemiology and prevention in the national medical curriculum;
- Establishment of in-built pre-hospital care and injury surveillance system;
- Institution of uniform regional surveillance system in the majority of countries;
- Development of regional database appropriate for estimating injury burden; and
- Preparation and dissemination of evidence-based advocacy materials.

10. REGIONAL ISSUES AND ACTIVITIES ON INJURY PREVENTION

10.1 Advocacy

**Issues:** Injuries in the Region have long been considered as “accidents” and seen from a medico legal and criminal perspective and not as human health problems. They are considered as health problems only after a person enters a
health system due to an injury, disability or death. The socio-economic impact and burden has not been fully examined. Decision-makers and policy makers in counties have paid scant attention to injury prevention. People’s perception and participation in injury prevention is meagre due to strongly held beliefs, risk-taking behaviours, absence of safe products and environments, and lack of awareness of safety rights. The public health response has been extremely poor and much of the efforts are geared towards acute care.

**Regional activities**

A sustained and strong public advocacy at all levels aimed at policy-makers, professionals, politicians, press and public will be undertaken in the coming years through:

- workshops and national meetings in countries;
- production of advocacy documents on prioritized problems;
- persuading policy-makers to include injury prevention in national health programmes;
- helping national governments to move beyond care-giving activities;
- encouraging professional associations to include prevention in their scientific meetings; and
- bringing out an injury fact book on major problems within one year.

### 10.2 Gathering Reliable and Uniform Information

**Issues:** Within health ministries, information gathering is of low priority and reliable data on injuries is not available. Further, injury-related data has to be pooled from the police, transport, judiciary, insurance, social welfare, NGO’s and others to get a realistic picture. The available national data is often underreported. Hospitals do not record details of injuries in a uniform and usable way. Thus injury prevention programmes have suffered in the past in the absence of evidence-based policies. This has been a great hindrance for conceptualization, planning, implementation and evaluation.
Regional activities

- Strengthening and incorporating injury in national health information and management system in Member Countries;
- Instituting injury surveillance in selected institutions in each country using of Injury Surveillance Guidelines prepared by WHO for standardized information;
- Enabling preventive and social medicine departments to examine the problem of injuries in their field practice areas;
- Collaborating with centres of excellence and networking between institutions and governments for information sharing activities;
- Encouraging health-related sector (including media) to extract information from hospitals and to take a lead role in influencing other sectors for getting reliable data; and
- Initiating ‘Small grants research programme’ development within WHO and other UN agencies along with national governments.

10.3 Policy Formulation and Strengthening

Issues: Member countries in the SEA Region do not have a national policy on injury prevention and control. The National Safety Councils are either non-existent or are not functioning effectively for lack of resources, trained manpower and professional – technical inputs to implement programmes.

Regional activities

- Formulating a national injury prevention policy with clearly stated objectives, plan of action and mechanisms for implementation in the countries within two years;
- Incorporating injury prevention and control in the national health plan;
- Establishing a working group for development of national injury prevention policy;
- Identifying a national focal point on injury prevention in the Ministry of Health;
• Appointing responsible national professional officers at the WHO country offices;
• Setting-up national/regional or district programmes for injury prevention;
• Establishing a national coordinating authority with technical experts, budget and power to formulate programmes with expected outcome;
• Establishing a national advisory group coordinated by the Ministry of Health with representatives of national research bodies, Directorate-General of Health Services, professionals and technical experts, related national institutions, and key decision-makers from transport, home affairs, education, science and technology, law and social welfare; and
• Instituting national task forces on specific issue of injuries such as road traffic injuries, industrial injuries, burns, suicide and violence to formulate policy and programmes.

10.4 Strengthening Human Resources for Injury Prevention

Issues: There is a great need to develop technical expertise in health and related sectors for safety promotion and injury prevention. In the entire South-East Asia Region, there are no training programmes for injury epidemiology, prevention and control, even though high-tech institutions and courses exist.

Regional activities
• Identifying institutions in the Region and strengthening research, human resource development and policy components;
• Encouraging countries to initiate programmes for capacity building in injury epidemiology, prevention and control in selected institutions;
• Re-examining medical curricula and helping countries to introduce prevention components; and
• Assisting governments/universities/institutions to develop research methodologies on a wide variety of areas through focussed workshops and meetings.
10.5 Technology Development

**Issues:** There is increasing evidence to show that several factors are responsible for causation of injuries. These are products which people regularly use (household products, industrial equipments, agricultural tools, vehicles, chemicals, organophosphorus compounds and drugs, recreational objects) in their home, work and on roads.

**Regional activities**

- Encouraging countries to bring together agencies involved in product manufacturing for making safer products;
- Enabling countries to develop safety standards and to adopt international standards in areas of technology transfer;
- Strengthening national governments to incorporate elements like safety audits in road and building construction in expansion and modernization of technology; and
- Facilitating greater interaction between safety professionals, communities and product manufacturers.

10.6 Resource Mobilization

**Issues:** It is essential to recognize the importance of safety improvement in all development activities and institute injury prevention programmes. At present, within governments and even within the WHO, resources are not available to meet the emerging challenge of injuries. Nevertheless, many international agencies, governments and corporate houses are expressing interest in promoting safety during the coming years.

**Regional activities**

- Encouraging national governments to ensure budgetary provision.
- Establishing greater collaboration between WHO, other UN agencies (UNICEF, UNDP, UNFPA, International Red Cross, ILO and others), bilateral and multilateral agencies (international banks like World Bank,
Asian Development Bank, and other agencies) and NGOs to mobilize resources for safety promotion and injury prevention;

- Promoting greater participation of the private sector including corporate houses to invest in safety; and

- Encouraging national research bodies to provide financial support to major leading medical schools for surveillance and action-oriented research.

### 10.7 Strengthening Pre-hospital and Emergency Care

**Issues:** Pre-hospital care is grossly unavailable for traumatized and injured persons in the South-East Asia Region. Additionally, the suffering of the injured persons is aggravated by the poor facilities at the emergency departments and lack of appropriately trained personnel. Immediate care after injury, early transportation, reducing time to reach a hospital and appropriate referral are four vital elements, which make a difference. Appropriate regional guidelines and protocols to assist organization of effective systems of trauma care in the Region are lacking. Advanced, expensive, technologically-oriented emergency care practices are not possible within the limited resources available in countries of the South-East Asia Region.

**Regional activities**

- Developing regional policies with minimum guidelines and standards;

- Encouraging Member Countries to initiate strengthening emergency care at all levels of health care system, specially in peripheral and district hospitals;

- Helping countries to develop basic and minimal first aid courses for health functionaries and for people from police, transport officials, teachers, school and college students, and others;

- Strengthening country capacity to handle and organize emergency care in disaster situations; and

- Improving emergency medical service component in the curricula of medical schools;
10.8 Empowering Local Organizations and NGOs

**Issues:** If national policies and programmes are to be translated to reality, action at different levels is crucial for success. Many local bodies and NGOs can be involved and strengthened in this area as they are closer to communities, work at local levels and are in a position to better evaluate interventions.

**Regional activities**

- Helping voluntary agencies to incorporate injury prevention into their agenda.
- Empowering governments and NGOs to promote the fundamental right to human safety at all places irrespective of barriers; and
- Promoting greater participation of NGOs into national planning, development and implementation of activities.

10.9 Regional Coordinating Mechanisms

**Issues:** Lack of coordinating mechanisms at international, national and local levels has been a major barrier for injury prevention programmes and is a challenge to be overcome in the South-East Asia Region. Since injury prevention requires coordination between agencies, governments and its different departments, between local agencies and communities - greater inputs (information), dialogues, networking, liaising and advocacy are required. Better mechanisms have to be evolved at different levels with roles and responsibilities and ownership. Lack of intersectoral approach between health and related partners is a crucial stumbling block which needs to be overcome at all levels.

**Regional activities**

- Establishment of a regular post at the SEA Regional Office for continuity and co-ordination of regional injury prevention agenda.
- Regional resource centres on priority areas of injury prevention to facilitate regional level activities.
• Strengthening of regional professional network in sharing experiences, programs and research findings.

11. INJURY PREVENTION: A PUBLIC HEALTH AGENDA FOR ACTION

With changes, reforms and progress occurring in every sphere of human life across the South-East Asia Region, injuries are already one among the five major public health problems. Injuries will account for greater proportions of death, disability and socioeconomic losses, predominantly in the 5-44 years age groups during the years to come. Among the major type of injuries, road traffic injuries, industrial and agricultural injuries, burns, suicide and violence contributes to nearly 70-80 per cent of total injuries.

Prioritized action plans developed on an action-oriented research is the need of the hour for implementation and evaluation. The solutions must have political support, technological availability, economic feasibility and cultural acceptability. This transformation to reality requires active participation of all concerned agencies towards a safety culture. WHO in collaboration with national governments and other international agencies looks forward to fill these gaps by strengthening injury prevention and control activities to save lives and reduce the suffering.
<table>
<thead>
<tr>
<th>Area of activity</th>
<th>Priority actions</th>
<th>Short-term activities (within two years)</th>
<th>Intermediate activities (2 to 5 years)</th>
<th>Long-term activities (5 to 10 years)</th>
</tr>
</thead>
</table>
| 1. Policy development, advocacy and program me development | Ensuring government commitment | • National policy on injury prevention  
• Commitment of resources to injury prevention programme. | • National injury prevention programme piloted through Ministry of Health | • Implementation and evaluation programme for efficacy in reducing the burden of injuries |
| | Advocating for injury prevention | • Preparation of evidence-based advocacy kits  
• Involvement of media people for advocacy  
• RC resolution for injury and violence prevention | • National resource centres on injury prevention  
• Incorporation of safety as an integral component in development projects | • National safety standards  
• Legal provisions for road safety, occupational safety and consumer safety |
| | Institutionalizing of injury prevention programmes | • Review of legislation in all injury prevention areas | • Strengthening financial resources  
• National / regional injury prevention and control centres | • Regional support group on injury  
• Separate department/unit for injury control at M O H |
<p>| 2. Reduce injury burden through program implementation | Establishing injury surveillance system | • Pilot injury-surveillance system with guidelines in selected hospitals | • Implementation of district hospital based injury-surveillance system | • Implementation of injury surveillance in all health care facilities |</p>
<table>
<thead>
<tr>
<th>Area of activity</th>
<th>Priority actions</th>
<th>Short-term activities (within two years)</th>
<th>Intermediate activities (2 to 5 years)</th>
<th>Long-term activities (5 to 10 years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establishing pre-hospital care system</td>
<td>• Pilot central hospital based pre-hospital and emergency care</td>
<td>• Identification major issues and constraints on pre-hospital and emergency care pilots</td>
<td>• Implementation of district based pre-hospital care</td>
<td>• Implementation of pre-hospital and emergency care in all major health care facilities</td>
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<td></td>
<td>• Identification major issues and constraints on pre-hospital and emergency care pilots</td>
<td>• Implementation of district based pre-hospital care</td>
<td>• Improvement of facilities for trauma care</td>
<td>• Improvement of facilities for trauma care</td>
</tr>
<tr>
<td>Reducing the burden of road-traffic injuries</td>
<td>• Preparation of a national multisectoral strategy on road traffic injury prevention</td>
<td>• Pilot the multisectoral approach</td>
<td>• Implementation of national programme</td>
<td>• Evaluation of the programme and implementation of revised programme</td>
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<td></td>
<td>• Advocacy for national department on road safety</td>
<td>• Implementation of national programme</td>
<td>• Establishment of high-powered national safety department</td>
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<tr>
<td>Control of occupational (agricultural) injuries</td>
<td>• Assessment of the baseline burden of agricultural injuries</td>
<td>• Preparation of national multisectoral policy</td>
<td>• Implementation of national programmes</td>
<td>• Implementation of national programmes</td>
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<tr>
<td></td>
<td>• Survey of major current risk factors</td>
<td>• Pilot community-based prevention programmes</td>
<td>• Monitor and evaluate programmes</td>
<td>• Monitor and evaluate programmes</td>
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<tr>
<td>Decreasing the excess impact of burn-injuries</td>
<td>• Promotion of safer first-aid practices</td>
<td>• Education of public on safe house and safe products</td>
<td>• Promote safer products</td>
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<td></td>
<td>• Identification risk-factors of burn injuries</td>
<td>• Preparation of fire-safe housing policies and programs</td>
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<tr>
<td>Area of activity</td>
<td>Priority actions</td>
<td>Short-term activities (within two years)</td>
<td>Intermediate activities (2 to 5 years)</td>
<td>Long-term activities (5 to 10 years)</td>
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<tr>
<td>Interpersonal violence prevention</td>
<td>• Regional framework for interpersonal violence prevention</td>
<td>• Programme for prevention of sexual violence against children and women</td>
<td>• Programme for prevention of domestic violence</td>
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<tr>
<td>3. Human Resource and Infrastructure Development</td>
<td>Capacity building strategies</td>
<td>• Training on injury epidemiology • Create a critical mass of human resources for injury prevention and control • Train health care providers on pre-hospital care • Training on injury surveillance • Human resource mobilization</td>
<td>• Training health workers on burn-injuries and safety infrastructure development for institutions • Incorporating injury prevention and control in medical curriculum</td>
<td>• Dissemination of best practice models</td>
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<td></td>
<td>Strengthening regional co-ordination and support</td>
<td>• Identify regional resource institutions • Creating and facilitating regional network of experts • Commissioning of inter-country research</td>
<td>• Regional resource centers for specific injuries • Regional donor groups for “Small grant programs on injury research”</td>
<td>• Establishing national resource centres for specific injuries</td>
</tr>
</tbody>
</table>