REVIEW OF THE IMPLEMENTATION OF THE NATIONAL POLICY ON PREVENTION OF INJURY
2006-2009

International consultant:
Professor Joan Ozanne-Smith

National consultant:
Assoc. Prof. Nguyen Thi Hong Tu

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EXECUTIVE SUMMARY

Title: Review of the implementation of the National Policy on Prevention of Injury 2006-2009

Authors: Professor Joan Ozanne-Smith and Assoc. Prof. Nguyen Thi Hong Tu

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Region: Asia Pacific

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Type

Theme: Injury prevention

Background

The Vietnam government enacted the National Policy on Accident and Injury Prevention in 2002 with the overall objective (goal) to reduce injuries in all areas of life such as injuries in traffic, in labour, at home, at school and in common places. The National Policy set up specific objectives and strategies for Government agencies and line sectors to achieve the goal. It also specifies the key role of each Government agency/sector in the area of injury prevention.

Since the National Injury Prevention Policy has been in place for some time a large number of Regulations, Decrees and Policies have followed as well as implementation programs. Some funding cycles will soon reach completion. Many of the policies and processes have end dates, and new or adjusted policies and strategies are needed.

Purpose/Objective

The purpose is to review progress on the implementation of the National Injury Prevention Policy and to make recommendations for future directions.
The specific aims and objectives of the review were to:

(1) Examine the conformity of national policy with international standards;
(2) Assess key achievements and constraints encountered by implementing agencies in the implementation of the National Policy;
(3) Identify lessons learned;
(4) Provide specific recommendations based on the review for necessary adjustments and/or further development of the National Policy.

Specific objectives also included:

- To assess the injury morbidity and mortality status after the implementation of the national policy in injury prevention in the period 2006-2009.
- To evaluate the implementation of national policy in injury prevention in the period 2006-2009 in line with the set strategies and targets by ministerial members of national steering committee.
- To assess the level of achievement of the specific objectives/targets set out by the policy.
- To identify the achievements by ministerial members of the national steering committee and influencing factors.
- To evaluate the advantages and disadvantages/ obstacles during the implementation of national policy in injury prevention nationally and in two Provinces (Hai Duong province, about 70 km from Hanoi and Nam Dinh – a project province- about 90km from Hanoi) as a comparator for the field study.
- To identify common lessons learnt from all agencies/line sectors.
- To develop and provide recommendations for the follow- up of policy, based on those made by active agency/line sectors and from the evaluation findings overall.

Methodology

A comprehensive literature search and desk review was undertaken; some additional data analyses were conducted; and an interview survey of key national stakeholders and other experts and an interview survey and focus groups in two provinces was completed. Following these information gathering steps, a presentation of main findings was made to an expert/stakeholder workshop with discussion of the findings and potential ways forward.

The findings of the review were prepared into a draft report, which was reviewed by UNICEF, after which this final report was prepared to incorporate their comments and additional information that has come to hand since the workshop, particularly updated data to include 2008 and the interpretation of this data in terms of the objectives of this review.

Key findings and conclusions

Since the National Policy was decreed in 2002, substantial progress on injury prevention has been made in many areas and against each of the general objectives. While a great deal has been done in terms of governance, regulation and program development, this has not yet translated into substantial injury and death reductions, with the possible exception of road traffic injury, which may have commenced a downward trend, though it is too early to make this judgement.

The lack of adequate data systems to describe the injury problem, to identify specific injury mechanisms and settings to target for intervention, and to monitor progress is a substantial barrier to achieving the full potential of the National Policy.

Other areas where achievements are lacking are also identified in detail and multiple recommendations have been made for improvements and for some new directions.

A future high level National Action Plan is needed urgently to provide co-ordination, leadership and central funding.

Recommendations

1. High level policy review

- a high level body is needed to review and update the National Policy for 2010-2020
- an enhanced co-ordination process is required for implementation of a new or revised National Policy
- a concrete National Action Plan is needed across sectors
- the inter-sectoral National Steering Committee should be revived at a similar inter-sectoral high level to the original Steering Committee, with an executive core to drive implementation
- national funding, in addition to sector and province funding, is required for successful injury prevention
- accountability for progress in injury prevention needs to be strengthened for all sectors
- sector and province action plans should be updated following development of a National Action Plan

2. All-sector National Action Plan

- Concrete guidelines are required
- Co-ordination is essential
- Overlap should be avoided between sector action plans
- Neglected areas should be addressed (agricultural sector, small enterprises, infants eg safe sleeping)

3. Data system enhancements

Death data

- Increase detail on mechanism, place, activity, and intent in A6 injury data at the point of collection
- Develop standardised guidelines for attributing cause of death for commune data collectors, including clear determination of the inclusion of persons from elsewhere who die within the commune, and the exclusion of persons from their commune whose death occurs and may be recorded elsewhere
- Provide training and ongoing in-service training to commune data collectors
- Investigate discrepancies between NTSC and Ministry of Health road traffic deaths
- Reconcile these data regularly
- Ensure that all road traffic deaths are recorded by road user type
- Attribute death to road traffic injury if it occurs within 30 days of injury, in-line with international standards and with recommendations of the WHO Global Status Report on Road Safety (2009) recommendations
- Where seriously injured persons go home to die, ensure their inclusion in health and police death data collections

Hospital admissions data

- Apply Chapter XX, ICD 10 External cause codes to all hospital admitted injury cases
- Provide software as required to add these codes to hospital data systems
- Designate staff to the coding task
- Provide training on external cause coding to those with responsibility for hospital record coding and undertake quality assurance
- Centralize data on a regular and timely schedule and analyse and disseminate the data

Emergency department injury surveillance

- Establish a sentinel hospital sampling frame for ED injury surveillance (similar to US National Electronic Injury Surveillance System)

- Review data collection form and software to an international standard (eg ICECI)
- Designate staff to this task and provide training
- Undertake regular and timely data centralization
- Conduct data analysis and dissemination centrally

4. Research

- Conduct risk factor studies (as for alcohol in drivers) to identify intervention points for prevention
- Undertake well-designed controlled evaluation studies to determine whether or not interventions are actually effective
- Conduct impact/intermediate measure studies for interventions to identify whether any changes in injury rates can be explained by the intervention (eg for child injury, community interventions, swimming training for drowning prevention)
- Investigate suffocation as a cause of infant deaths as data are currently not available, yet household surveys in regional countries have identified this as a significant cause of infant mortality
- Invest in and conduct a large scale, detailed, second Vietnam Multi Centre Household Injury Survey (VMIS) to provide an accurate snapshot of the current status of injury in Vietnam and an alternative data source to determine the reliability of commune and hospital-based injury reports.

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1.0 Introduction

1.1 Rationale for review

The Government of Viet Nam, aware of this important issue, promulgated the National Policy on Accident and Injury Prevention (hereafter referred to as National Policy) in 2002 with the overall goal to ensure safety for people's life. The National Policy defines the overall objective (goal) which is to reduce injuries in all areas of life such as injuries in traffic, in labour, at home, at school and in common places. The National Policy also set up specific objectives and strategies for Government agencies and line sectors to follow in order to achieve the goal. It also specifies the key role of each Government agency/sector in the area of injury prevention.

The National Injury Prevention Policy has been in place for some time now as have a large number of other Regulations, Decrees and Policies, many emanating from the National Policy. A number of implementations programs have also been in place for considerable periods and some funding cycles will soon reach completion. Many of these policies and processes have end dates, and new or adjusted policies and strategies are needed.

It is therefore important and timely to review progress on the implementation of the National Injury Prevention Policy and to make recommendations for future directions.

1.2 Auspice agency

UNICEF, in collaboration with the Vietnam Ministry of Health, engaged international and national consultants with experience in injury prevention and evaluation to conduct the review. The work of the project was largely based in Vietnam, with the international consultant in residence for one month.

2.0 Background

2.1 National Policy on Accident and Injury Prevention

2.1.1 Policies and timelines

The National strategy on health care and protection preceded promulgation of the National Policy on Accident and Injury Prevention by several months. On 19 March 2001, the Prime Minister signed Decision 35/2001/QD-TTg to approve ***the "Strategy on health care and protection for the Vietnamese people in 2001-2010***". The general objective of the strategy is: "To make all possible efforts to enable the Vietnamese people to access and utilise quality primary healthcare services. All citizens are enabled to live in a safe community with good physical and mental development. Intensified efforts will also be made to reduce morbidity, improve health status, increase life expectancy and improve the quality of the future generations".

The Prime Minister approved the ***National policy on accident and injury prevention*** for the period of 2002 – 2010 at decision No. 195/2001/QD.TTg dated on December 27, 2001 with the overall objective "To gradually alleviate different types of accidents and injuries such as traffic accidents, accidents at work, at school, at public places in order to achieve good effectiveness in securing safety for people, life, Government, properties and people's wealth being to contribute to the sustainable

development of the country from a social-economic and political perspective" and the following specific objectives:

2.1.2 Specific objectives and indicators

- To improve the awareness and responsibility of all institutions, agencies and individuals so that they can change their behaviours and life style accordingly in order to reduce accidents and injuries
- To implement social mobilisation as related to injury prevention to get sharp attention to injury prevention from the authorities and social organisation at all levels and from the entire population
- To implement strictly and timely measures in order to gradually alleviate accident and injuries, especially serious ones
- Some concrete indicators of different domains to be reduced by 2010 in comparison with the year 2000 are as follows:

1- Reducing accidents at school by 40%
2- Reducing accidents at work by 30%
3- Reducing accidents at home and in the community by 30%
4- Reducing traffic mortality /10.000 vehicles

(Ministry of Health Vietnam – Sweden health co-operation – undated)

Accident and injury prevention work has been identified as an indicator in the national standard for health at the commune level, approved by the Minister of Health at Decision No 370/2002/QDD-BYT dated 7 February 2002.

3.0 Purpose and scope

3.1 Purpose

The overall purpose was to review progress on the implementation of the Vietnam National Injury Prevention Policy and to make recommendations for future directions. In particular, it identifies achievements and areas where achievements are lacking. Recommendations are made accordingly. Although the specific focus was 2006-2009, in order to meet the aims and objectives, it was necessary to review this in the broader perspective of the original policy and progress overall.

3.2 Scope and limitations

The review was limited to a desk review and interviews/survey material and focus groups as the consultancy was limited in time frame to a little over one month. It also included a designated Workshop for the purpose of presentation of the review findings and recommendations and for discussion of these by representatives of national government sectors and agencies, UN agencies, academic institutions and NGOs.
Only two of the 64 Vietnam provinces were included for detailed field work as part of the review and representatives of these provinces were also invited to the Workshop. The final, updated schedule for the consultancy, including field work is included as Attachment 1.

There was also an opportunity for the consultants to participate in an Injury Working Group meeting – which provided an update on recently completed research and both research and interventions in progress.

4.0 Aims and objectives

4.1 Aims

(5) Examine the conformity of national policy with international standards;

(6) Assess key achievements and constraints encountered by implementing agencies in the implementation of the National Policy;

(7) Identify lessons learned;

(8) Provide specific recommendations based on the review for necessary adjustments and/or further development of the National Policy.

4.2 Specific objectives

- To determine the conformity and relationship of the national policy to international standards.
- To assess the injury morbidity and mortality status after the implementation of the national policy in injury prevention in the period 2006-2009.
- To evaluate the implementation of national policy in injury prevention in the period 2006-2009 in line with the set strategies and targets by ministerial members of national steering committee.
- To assess the level of achievement of the specific objectives/targets set out by the policy.
- To identify the achievements by ministerial members of the national steering committee and influencing factors.
- To evaluate the advantages and disadvantages/ obstacles during the implementation of national policy in injury prevention nationally and in two Provinces (Hai Duong province, about 70 km from Hanoi and Nam Dinh – a project province- about 90km from Hanoi) as a comparator for the field study.
- To identify common lessons learnt from all agencies/line sectors.
- To develop and provide recommendations for the follow- up of policy, based on those made by active agency/line sectors and from the evaluation findings overall.

5.0 Methods

5.1 Approach and categorization

The approach is generally that of public health, recognizing that, in the case of injury prevention, this is also necessarily a multi-sectoral approach and one that aligns with public policy models. The study consisted of a comprehensive literature search and desk review, some additional data analyses, an interview survey of key national stakeholders and other experts and an interview survey and focus

groups in two provinces, presentation to and discussion of main findings with an expert/stakeholder workshop and reporting of findings.

5.2 Review components

A systematic approach was taken to review/evaluate implementation of the National Policy. While a standard evaluation method would be to assess process, impact, and outcome measures, this is complemented by a particular focus on achievements and areas of lack of achievements and recommendations for future directions.

5.3 Content and cross-cutting issues

In reviewing progress in injury prevention, development in both content and cross-cutting areas (infrastructure issues) are of significance as progress relies heavily on both.

Main content areas

From the available literature and data on the situation in Vietnam, it is clear that the major injury areas of concern are road traffic injury, drowning, occupational injury and child injury. These concerns are reflected in the National Policy.

Main cross-cutting issues

There are multiple cross-cutting issues to consider, since these are fundamental to progress. Because injury prevention requires a multi-sectoral approach, the issues of co-ordination and leadership are paramount. Resources, resource distribution and capacity development are also of importance to support injury prevention policies and strategies.

Mortality and morbidity data of sufficient quality to identify and understand the circumstances of injury problems is necessary to prioritize interventions and to monitor trends.

Each of these cross-cutting issues was addressed in both the desk review and in interviews and focus groups with stakeholders.

5.4 Desk review

Many reports and policy documents are available, some in English, but many only in Vietnamese. Where necessary, the Vietnamese consultant translated important materials or provided summaries in English. Intervention materials, not surprisingly, are mostly only available in Vietnamese. Documents reviewed are listed in Appendices 2,4,5 and 6.

5.7 Data

Fatal injury data was sourced from a number of published and unpublished sources. Source material is referenced with the results in section 6.2 The availability and quality of non-fatal injury data was very limited. Given the importance of data to any current or future evaluation, and even more urgently for problem definition for the targeting of interventions, material was also sourced on methodological issues, and research in progress.

5.8 Interviews and survey data

While the intention was to conduct separate interviews with all key stakeholders or representatives of groups of stakeholders, in practice, some of these processes had to be condensed due to time constraints and the availability of these key stakeholders.

Methods were enhanced, however, by the distribution of the detailed questionnaires ahead of interviews (see later in this section) and the questionnaires are at Appendix 3. Within Ministries, most interviews were conducted with Directors or Deputy Directors of Departments, accompanied by assistants in some cases. Most key informants were interviewed in small groups, by ministry or agency and a few as individuals. Others completed the interview questionnaire and only met on a needs basis to follow-up on responses and some completed the questionnaire only.

The written responses to the questionnaire were completed in Vietnamese and this information was collected, compiled and analysed by the Vietnamese consultant. New and confirmatory information of the results obtained by means of the desk review, interviews and focus groups has been included in the results and discussion sections of this report.

At the province level, in both provinces round table groups had been arranged, rather than individual interviews, apparently due to time constraints for this project, so information was collected on each major interview question from participants on a one-by-one around the table basis, with some general discussion ensuing.

Consultation with international experts was conducted on a needs basis to identify relevant research in progress and the conformity of Vietnam's policy with international standards.

5.9 Focus groups

The provincial meetings for District and Commune Injury Prevention Steering Committees were intended to be conducted as focus groups, and focus group questions were prepared accordingly. However, the focus group method appeared to be unfamiliar in Vietnam and these sessions tended to be dominated by one person at the commune level, and reports by each participant were given at the District Committee. While the rich discussion between group members and exchange of views, that had been anticipated, was lacking, the information that was gathered was nevertheless informative.

5.10 Evaluation tools

Multiple evaluation tools were prepared based on the aims and objectives of the review, to collect information in three key areas: progress, barriers and facilitators, and potential future developments. The data collection forms are:

Background materials:

- Form (1a) Categorization and listing of relevant international standards and guidelines
- Form (1b) Categorization and listing of Viet Nam materials: legal documents, IEC manuals, injury surveillance, training manuals, research/ survey reports that support the reviews objectives regarding assessment of the national policy implementation from 2006-2009.

Injury data:

- Form (2a): Data from others countries and international resources concerning this report.

- Form (2b) Data surveillance reports from relevant agencies during 2006-2009 and earlier data for identification of trends over time.

Field work:

- Form (3) In-depth interview form for ministerial/ sector leaders/ staff structured to address the general and specific objectives of this evaluation
- Form (4) In-depth interview form for provincial steering committee members: retaining core items from form 3 and added items relevant to provincial objectives.
- Form (5) Focus group questions for district and communal injury prevention steering committees.

Copies of the forms are included in the text, or as Attachments (Attachment 3) to this report. They are in their completed form - in the case of forms (1a), (1b), (2a) and (2b); blank questionnaires for forms (3) and (4); and form (5) lists the focus group questions.

5.11 Study subjects

Subjects (a): National

- Members of the national steering committee of injury prevention of the health sector included the leaders of the General Department of Preventive Medicine and Environmental Health, Department of International Co-operation, Department of Planning- Finance, Department of Health Services Management and the Project Management Board for Child Injury Prevention.
- Others members of the national steering committee of injury prevention assigned in the national policy who are the leaders of the Ministry of Communication, Ministry of Transport, MOLISA, Ministry of Education- Training, Ministry of Agriculture and Development, National Committee of Sports.

Subjects (b): Provincial

- Members of the Provincial Steering Committees for Injury Prevention in two provinces with high rates of injury morbidity and mortality. These members are leaders of relevant provincial services, district health centers, communal health stations, school boards and mass organizations. Two Northern Provinces were selected, one being an intervention province for the Safe Communities model, and a comparator province. These choices minimized the travel time for the field study. Broader exposure to provinces in other regions of Vietnam was not possible within the time and budget of the project.

5.12 Ethics approval

The Review Board in the Department of Preventive Medicine and Environment will affect the role of Institutional Review Board/Ethics Committee to ensure that this evaluation complies with ethical and privacy principles:

- The interviews will be conducted only after informed consent and full approval of interviewees and agencies. Interviewees will be free to withdraw at any time.
- All information will remain confidential during the data collection, interview and reporting processes.

- The collected forms will be computerized and coded to ensure confidentiality and avoid identifying participants in the study.
- Contact details of the consultants and UNICEF will be provided to participants to provide a complaints process, should it be needed.

5.13 Analysis

Re-analysis was undertaken, to the extent possible, where there were clear errors in the tabulations or analysis of source data. Additional analyses were undertaken to further understand some points of interest such as road traffic injury from ministry of health data, NTSC data and modelled by WHO, occupational data from MOH, MOLISA and Social Insurance, etc, or an additional year or two of data was available to add to the initial sourced material.

With regard to interviews and discussions, themes were identified from the detailed notes completed by the international consultant, and the written completed responses to the questionnaires by the national consultant. These themes were refined after presentation at the Workshop.

6.0 Results/Findings

The results are presented here in accordance with the objectives of this review. Particular attention is paid to injury data findings as these represent a key issue in this review (section 6.2) and in its recommendations.

6.1 Conformity of the policy to international standards

Most countries, whether high-, middle- or low-income do not have a National Injury Prevention Policy. In this regard, Vietnam exhibits world best practice. Further, although the Policy and associated action plans developed in Vietnam precede relevant WHO normative documents regarding, in particular regarding national injury prevention strategies and the role of the Ministry of Health, they closely align with the WHO documents.

Intervention strategies and infrastructure development in Vietnam are also in line with the WHO Western Pacific Regional Framework for Injury and Violence Prevention 2008-2013. Close alignment is also the case for interventions and infrastructure development on RTI, violence, and child injury with respect to the WHO world reports on RTI, Violence prevention and the WHO/UNICEF World report on child injury prevention.

International standard for the reporting of road traffic deaths within 30 days has not yet been fully adopted in Vietnam, which retains a 24 hours reporting period by police though this is 30 days in the health system. A specific recommendation on this issue is made in the Western Pacific Region WHO: Global Status Report on Road Safety (WHO 2009).

The report also notes that all countries in the Western Pacific Region have lead agencies for road safety within the government. However, only six countries, namely, Indonesia, Malaysia, Myanmar, the Philippines, Singapore and Thailand, have a government-endorsed road safety strategy with specific targets and ear-marked funds. (WHO WPR: Global Status Report on Road Safety (WHO, 2009).

Major directions in data collection by the Ministry of Health have been guided by WHO guidelines (eg Injury Surveillance Guidelines) and classification systems (eg ICD 10) which have been

translated into Vietnamese and utilized over several years. However, international injury classification systems are not yet well implemented (ICD external cause codes for deaths and hospital admissions, international Emergency Department ICECI classification not implemented).

Best practice injury data systems disaggregate injury data further than the Vietnam data reported in this review. This is achieved by means of internationally standardized coding systems and trained coders, supported by coding guidelines and data dictionaries.

While the current data systems in Vietnam are able to provide overview information on major causes of injury, there is, for the most part, insufficient detail to define the circumstances of injury and death in order to target interventions effectively. This lack of problem definition is one of the greatest current challenges to injury prevention in Vietnam. For example, in order to adequately address the large drowning problem, it is necessary to know the locations of drowning: coast, rivers, irrigation channels, wells, etc and the activity at the time of the incident: boating, swimming fell into river, etc. Similarly, road traffic deaths must, in the future, be recorded by road user type and the counterpart vehicle, if any. Information is needed, for example, to adequately understand whether or not pedestrian and bicyclist deaths and injuries should also be targeted by road safety interventions. Proven interventions are available should a problem be identified and specified by enhanced data systems and research. For example, Vietnam has no regulations for bicycle helmets, or child restraints in motor vehicles and these interventions have not yet been shown to be needed. Likewise, for electrocution; knowledge of the circumstances of these fatalities is required to prioritize interventions, as effective countermeasures have been proven elsewhere.

6.2 Injury morbidity and mortality status after the implementation of the policy

6.2.1 Injury data systems

Mortality data

Since 1992, Vietnam has had a Mortality reporting system which is based on
death-record books (the A6) issued by the Ministry of Health and applied nation wide from the commune level. Data collection relies on commune-level officials providing basic demographic data, including age, sex, address, occupation and information on the time and cause of death, as well as medical care before death.

Basic national death data from the communes has been compiled and analysed at the district, then province level and centralized to the national level (Ministry of Health) since 2005. The sources and coverage for this information is as follows:

- 2005-2006: Statistics from A6 books for 9719 communes (88%) (64/64 provinces) by the General Department of Preventive Medicine and Environmental Health

- 2007: Statistics from A6 books for 10.284/10.999 (93.5%) communes (in 64/64 provinces) by the General Department of Preventive Medicine and Environmental Health

- 2008: Statistics from A6 books of 9752 (88.6%) communes (in 62/63 provinces) by the General Department of Preventive Medicine and Environmental Health

In reviewing the national mortality reporting system, Professor Mark Stevenson and co-authors found there to be major under-reporting and misclassification of death, highlighting the need for an extensive evaluation of the system (personal communication). Professor Stevenson and his

collaborators are currently undertaking a further study entitled "Evaluating and enhancing the national mortality reporting system in Vietnam", which has the potential to identify the source of some of these problems and to potentially provide recommendations for solutions.

Morbidity data

A report by the Ministry of Health on utilization of injury surveillance results for injury prevention in Vietnam indicates that, in order to have accurate and exact data for the purpose of prevention, systems of injury surveillance were required (Nguyen Thi Hong Tu –undated).

Systems were established primarily by the health sector based on three main sources:

(1) quarterly reporting system based on the community;
(2) hospital-based surveillance;
(3) results of surveys and studies.

The quarterly reports from the community are collected at the village and commune level, then through the district and province to the central level. The reporting form and data collection procedure are integrated into the existing health statistics system.
This has been implemented in all 64 provinces according to Decision number 25/2006/QĐ-BYT dated 22/8/2006 of the Minister of Health.
Hospital based injury surveillance data, collected on a separate form in emergency departments, includes the following information:

- First Aid and Medical emergency referral
- Classification of injury severity
- Intent of injuries
- Presence of risk factors for common injuries including traffic injuries, poisoning, drowning
- Injury consequence in terms of hospitalization duration and hospital fee

A pilot system was implemented in 9 hospitals in 5 provinces/cities (Development and implementation of injury surveillance in Vietnam, Nguyen Thi Hong Tu, Luong Mai Anh – Second Asia-Pacific Conference on Injury Prevention, November 4-6th 2008, Hanoi, Vietnam. Abstract: p27). More recently the collection for road traffic injury data has been extended to 100 hospitals, approximately 30percent of which have begun regular reporting of data (Decision by the Minister of Health 1356/QĐ-BYT dated 18/4/2008 issuing the guidelines for an injury recording form for traffic injury emergency cases admitted to hospital).

Injury data reports

The desk review revealed that a number of regular reports on fatal and non-fatal injury are produced nationally on a regular basis. In addition, national and provincial household surveys on injury have been conducted, as well as research based on injury data. Specific reports, particularly with a focus on 2006-2009, identified to inform the review, with regard to source, data collection method, periods covered and information collected, are listed in Appendix 4 - form 2b.

More specifically, Table 1 indicates the injury data reports that were examined in depth and from which data was extracted for reporting here.

Table 1: In-depth injury data review (form 1b)

1.	Part 1. Data from Ministry of Health (surveillance system in community based Dead

	cause register Book- A6 2005-2007) Injury mortality in community 2005 - 2007 Road traffic mortality in community 2005-2007 Injury mortality of children and juvenile aged from 0 to 19 in 2005 – 2007 Injury mortality and road traffic mortality by province Part 2. Data from National traffic Steering Committee.
2.	Injury Morbidity and Mortality per /100.000 population admitted into the health system 2002-2005 by cause of injury.
3.	Injury mortality distribution of children and juveniles aged from 0 to 19 in the country and 6 project provinces 2005 - 2007
4.	Road traffic injury 2002-2008 and Comparison Road traffic accidents in 3 periods 2000-2002; 2003-2005; 2006-2008
5.	Road traffic injury mortality and Occupational mortality by years 2000-7/2009
6.	Occupational accidents 2001-2009 and comparison through 3 periods, 2000; 2003-2005; 2006-2008.
7.	Comparison occupational accident and Road traffic accident in 3 periods 2000; 2003-2005 and 2006-2008.
8.	Data on injury surveillance system 2002-2007
9.	WHO. Vietnam data sheet on road traffic injury.
10.	Data on Safe Communities
11.	VMIS - Vietnam Multi-Centre Injury Survey 2001

6.2.2 Injury data: overview of the current situation

Since the initial review, an additional year of data (2008) has become available and the data reported here have been updated accordingly. The main findings from this section are that sufficient data is available to draw some conclusions. In particular, there is a promising downward trend in RTI fatalities. However, data is unconvincing from some sectors and a major program of work is required to improve data completeness, quality and detailed information to underpin the success of the next stages of National Policy implementation.

Fatal injury data: Ministry of Health

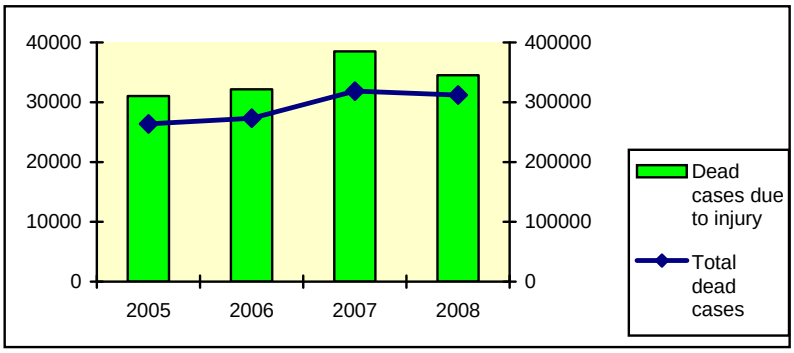
The latest available four years of data 2005-08, sourced from the A6 death registry are shown below:

Table 2: All–cause National Mortality versus Injury mortality, Vietnam 2005 – 2007 by frequency and percentage

	Mortality	**2005**	**2006**	**2007**	**2008**
1.	Total dead cases	263724	273383	318386	312059
2.	Dead cases due to injury	31052	32157	38482	34502
3.	Percentage of injury dead/total dead	11.8%	11.8%	12.1%	11.05%

Based on the A6 data, injury represents a substantial proportion of total deaths, with a growing frequency until 2007 and an apparent downward trend in 2008. Similar information is presented graphically in Fig 1.

Figure 1: All–cause National Mortality and Injury mortality, Vietnam 2005 – 2008 by frequency



In Fig 1, the total deaths by year for Vietnam (line graph) relates to the total deaths scale shown on the right side of the figure. The scale for deaths due to injury (bar graph) is shown on the left side of the figure.

Rates for injury mortality by age and year are shown by age in Table 3. These figures indicate an increase in rate by age, except for the 5-14 years age group, though this is not necessarily indicative of the trend in frequency of burden of injury.

Table 3: Injury mortality rate by age group Vietnam 2005 – 2007
per 100.000 pop.

Age group	2005	2006	2007
0-4	25.3	26.2	23.4
5-14	15.5	15.5	14.0
15-19	35.2	36.3	37.3
20-59	59.0	61.2	64.4
60+	73.4	74.3	76.8

The overall injury mortality rate in 2007 was 46.6/100,000 population. When broken down by external cause of injury, road traffic injury is the leading cause, followed by drowning, suicide and occupational injury and poisoning.

Table 4: Injury mortality by causes in 2005 – 2008
per 100.000 pop.

	Cause of injury	2005	2006	2007	2008
1.	Injury mortality per/100.000	45.0	46.1	46.6	43.9
2.	*Road traffic* (V01-V99)	19.9	21.2	21.7	18.5
3.	*Occupational injury* (W20-W49)	2.3	2.4	2.1	1.9
4.	*Animal bite* (W50-W64)	0.3	0.3	0.4	0.4
5.	*Fall*(W01-W19)	1.3	1.2	1.8	1.6
6.	*Drowning*(W65-W84)	8.6	8.7	8.2	7.7
7.	*Burning*(W85-W99. X00-X19)	0.5	0.3	0.4	0.4
8.	*Poisoning:* (X25-X29. X40-X49)	2.1	1.9	2.2	2.3
9.	*Suicide*(X60-X84)	5.0	5.0	4.6	4.9
10.	*Violence* (X85-Y09)	1.0	1.0	1.0	0.8
11.	*Others*	4.0	4.1	4.2	5.3

However, the National Traffic Steering Committee (NTSC) data based on police reports differs from the Ministry of Health data (see section 6.2.6 for a comparison of Ministry of Health A6 and NTSC data).

6.2.3 Road traffic injury

National Traffic Steering Committee

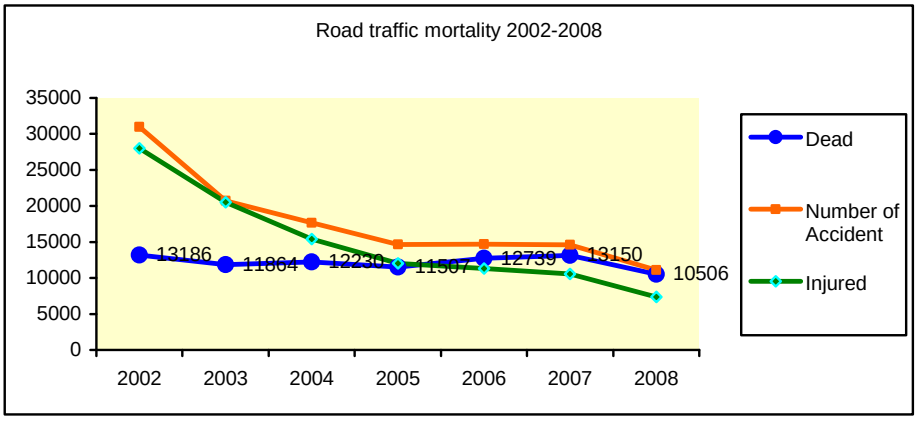
The National Traffic Steering Committee publishes annual data on road traffic fatalities (Table 5 and Figure 2). However, these results are not available broken down by road user type.

Table 5: Road traffic injury 2002-2008

Year	Dead	Number of Accident	Injured
2002	13186	30999	27993
2003	11864	20704	20500
2004	12230	17663	15417
2005	11507	14643	12030
2006	12739	14701	11286
2007	13150	14624	10546
2008	10506	11114	7370
Total	85182	124448	105142

Source: National Traffic Steering Committee-NTSC

Figure 2: Road traffic injury 2002-2008



Note: based on NTSC mortality data

These data show a reduction in the number of deaths in 2008. Interpretation of the results for numbers of accidents and injured is very difficult as, even if these figures only represent serious accidents and injuries, they appear to be highly under-reported when compared with the ratios of serious to fatal injuries in other countries which report road traffic injury data (WHO, 2008). According to country reports in the Global status report on road safety (WHO, 2008), multiples of between about 5 to 15 serious non-fatal injuries occur for each death in other Western Pacific Regional Countries.

The numbers of injured shown in Table 5 appear to be massive under-representations compared with Ministry of Health hospital based data Table 16. For example, for 2006 NTSC recorded 11,286 injured while MOH recorded 445,048 RTI cases; 2007 NTSC recorded 10546 injured and MOH 345,796. It appears that police report injuries by very different criteria or do not capture a very large proportion of cases in their data system. Thus, in Vietnam each serious non-fatal road traffic injury reported by the NTSC may actually occur in thirty or forty-fold multiples of injuries.

To provide a longer term perspective, Figure 3 shows trends in road traffic deaths and injuries for the periods 1990-2000.

Figure 3: RTI 1990-2000

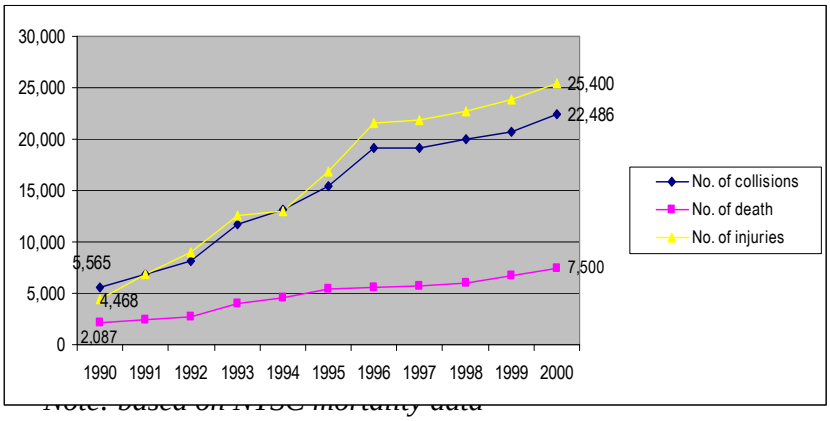


Table 5 provide and Fig 4 provide data on the total number of motor vehicles, and numbers broken down by cars and motor-bikes from 1990 to 2008, and road traffic fatalities, providing rates of death per 10,000 vehicles.

Table 5: Motor vehicle numbers and road traffic deaths and road traffic mortality/10000 vehicle 1990-2008

Year	Car	Motor-bike	Road traffic Motor vehicle	RT Deaths	RT Mort/10000 vehicles
1990	246194	1209463	1455657	2087	14.3
1995	340779	3578156	3918935	5430	13.9
2000	486000	6478000	6964000	7500	10.8
2005	891104	16086144	16977748	11184	6.6
2008	1361645	25481039	26842864	10506	3.9

Note: based on NTSC mortality data

Of course, with rapid motorization, the deaths/100,000 vehicles will decrease, even if other measures such as deaths/100,000 population and deaths/1000 km travelled are increasing. All three denominators should be considered in conjunction.

Figure 4: Road traffic deaths and road traffic mortality/10000 vehicle 1990-2008

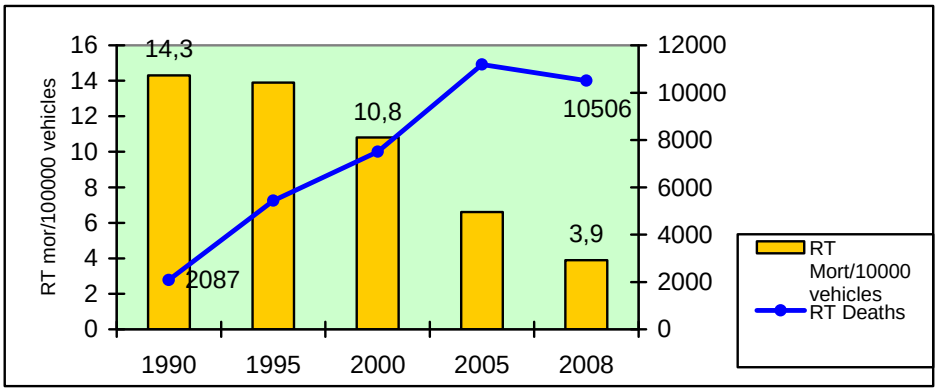


Table 6: Trend in road traffic mortality 2002-2008

Year	Death	Increased/ decreases (+)/ (-)	Rate %
2002	13186		
2003	11864	-1322	(-)10,0%
2004	12230	+ 366	(+)3,08%
2005	11507	-723	(-) 5,9%
2006	12739	+1232	(+)10,7%
2007	13150	+411	(+) 3,1%
2008	10506	-2644	(-) 20%
Total	85182	- 2680	- 3.1%/7 years -0.46% per year

Note: based on NTSC mortality data

Table 6 shows an apparent trend in road traffic mortality between 2002-2008 suggesting that after 7 years the frequency reduced 3.1% overall, or an average it is mean that every yearly decrease of about 0.5%. However, given the dramatic reduction indicated for 2008, this trend is highly dependent on the accuracy of the 2008 figure.

A reduction in the road traffic fatality rate identified in A6 data 2008 (Table 4), supports a reduction in this year. Further years of data will be required to confirm a downward trend. The reductions follow Resolution No 32/2007/NQ-CP on June 29, 2007 by the Prime Minister on some urgent solutions to curb traffic accidents.

6.2.4 *Occupational injury 2001-2008*

Occupational mortality and morbidity is narrowly defined by the Labour Ministry in Vietnam. It appears to be restricted to large enterprises and is inclusive of particularly risky areas including mining and electricity related work. Under-reporting of deaths is acknowledged by the Ministry associated with reluctance by enterprises to expose themselves to the potential serious consequences of being found responsible.

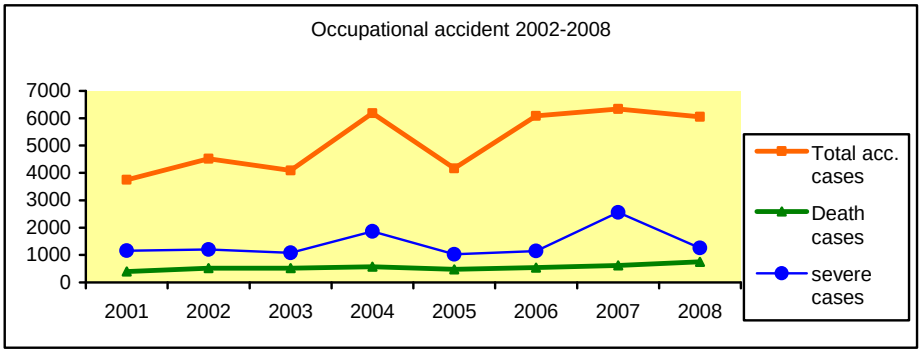
The available data from the Ministry do not include agriculture workers, small enterprises, work-related deaths on the road and categories such as deaths of bystanders to the work of others.

Table 7: Occupational injury Vietnam 2001-2008

Year	Total accident cases	Deaths	Severe injuries
2001	3748	395	1162
2002	4521	514	1206
2003	4089	513	1083
2004	6186	575	1865
2005	4164	473	1026
2006	6088	536	1142
2007	6337	621	2553
2008	6047	573	1262
Total	41180	4200	11299

These data are also shown in Figure 5. As for road traffic injury data, it is highly likely that severe injury and total accident cases are dramatically under-reported as much higher ratios of severe injury and total accidents would be expected, as for many other countries.

Figure 5: Occupational injury Vietnam 2001-2008



Source: MOLISA Annual Report: 2001–2008

Table 8: Occupational mortality trend 2002-2008

Year	Death cases	Increase/ decrease (+)/(-)	Rate %
2001	395		
2002	514	+119	+ 30%

2003	513	-1	
2004	575	+62	+ 12%
2005	473	-102	- 18%
2006	536	+63	+13%
2007	621	+85	+ 15.8
2008	573	- 48	- 7.7%
Total	4200	+ 178	+ 45%/8 years + 5.6%/year

Increased frequencies over most years may be attributable to improvements in reporting. If these data reflect the real situation or a representative sample of the true total, an increase in occupational mortality of 45 % from 2002-2008 is observed, or a mean yearly increase of 5.6%.

6.2.4 Child and adolescent injury deaths

The child and adolescent population aged 0-19 years makes up around 36% of the total population of Vietnam and is rising rapidly.

According to the VMIS 2001 national survey, injury was responsible for nearly 75% of child deaths one year of age and above.

The most recently available mortality data for this age group is for the period 2005-2007, from the Ministry of Health A6 data. Table 9 shows frequencies and rates of child and adolescent injury deaths.

Table 9: Injury mortality trends children 0 to 19 Vietnam, 2005-2007

	2005	**2006**	**2007**
Injury death: children and adolescents 0 – 19 years	6,938	7,198	7,894
Rate per 100.000 children and adolescents	25.8	26.3	26.4

From Table 9, the frequency of deaths and the rate per 100,000 children have increased each year at the national level.

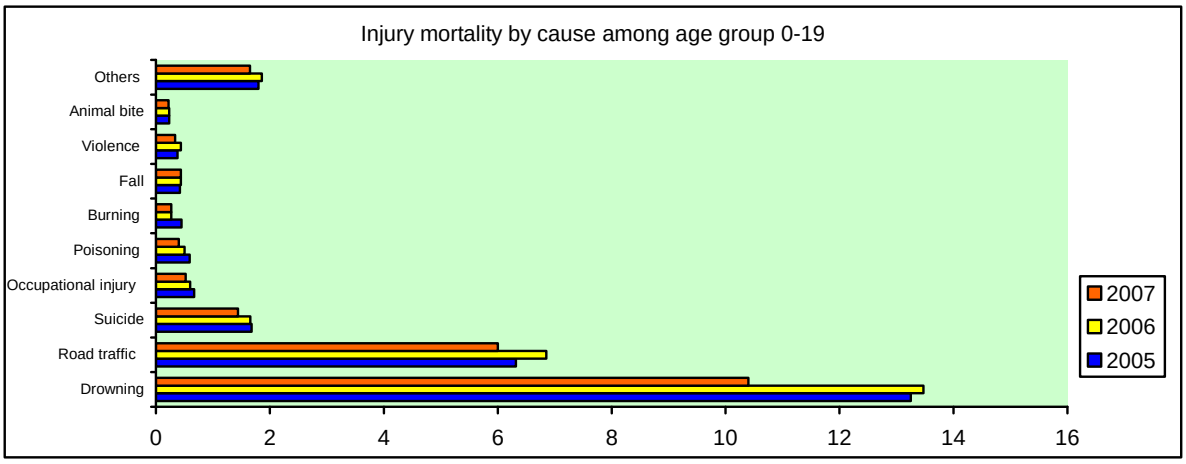
Major causes of death in this age group for the period 2005-2007, from A6 data were drowning, RTI, suicide, occupational, fall, poisoning (Table 10). This distribution is similar to that found for 2001 by the VMIS. (Morbidity data reported for this period showed a different ranking with fall injuries most frequent, followed by RTI, poisoning, burns, and animal bites.) The mortality data are shown graphically in Figure 6.

Table 10: Injury mortality: child and adolescent aged 0 to 19 years ranked by cause 2005 – 2007, frequency and rate/100,000

Cause	2005		2006		2007	
	Frequency	/100.000	Frequency	/100 000	Frequency	/100 000
Total of 0-19	6.938	25.8	7.198	26.3	7.894	21.7
Drowning	3.564	13.3	3.685	13.5	3.786	10.4
Road traffic	1.701	6.3	1.873	6.9	2.186	6.0
Suicide	453	1.7	455	1.7	525	1.4
Occupational injury	179	0.7	165	0.6	190	0.5
Poisoning	159	0.6	136	0.5	144	0.4
Burns	120	0.5	74	0.3	99	0.3
Fall	114	0.4	119	0.4	161	0.4
Violence	102	0.4	119	0.4	122	0.3
Animal bite	62	0.2	62	0.2	80	0.2
Others	484	1.8	510	1.9	601	1.7

Source: Statistics from A6 books of 9719 communes (in 64 provinces) by General Department of Preventive Medicine and Environmental Health

Figure 6: Injury mortality: child and adolescent aged 0 to 19 years, ranked by cause 2005 – 2007, frequency and rate/100,000

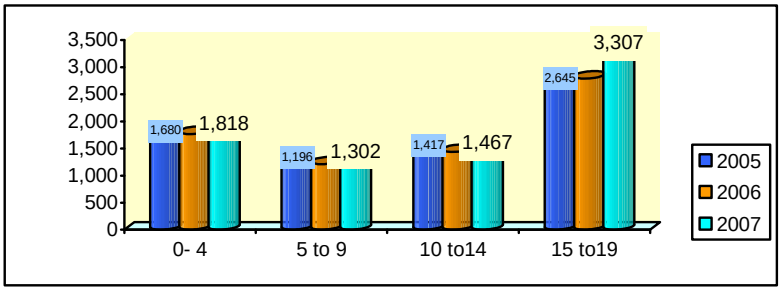


When considered by age group, the highest frequency of injury deaths is for 15-19 year olds and frequencies increased over the three year period for each age group (Table 11 and Figure 7).

Table 11: Injury mortality by age group: children and adolescents 0 to 19 year Vietnam 2005 – 2007

Age group	2005	2006	2007
0- 4	1.680	1.767	1.818
5 - 9	1.196	1.209	1.302
10 -14	1.417	1.434	1.467
15-19	2.645	2.788	3.307

Figure 7: Injury mortality by age group: children and adolescents
0 to 19 year Vietnam 2005 – 2007



Child injury interventions
A decrease is observed in child injury deaths in the six intervention provinces supported by UNICEF compared to national data, except for Quang Tri and Hải Phòng provinces where the child injury death rate is still higher (table 12 – increases are highlighted). A decrease in child injury deaths in the 6 intervention provinces overall has been reported for drowning and suicide and RTI, while national drowning and suicide frequencies increased (figure 8).

While these data are encouraging, province level reductions do not appear to be explained by the UNICEF funded intervention program. Moreover, little stability is noted in province rates (table 12), where rates increased in the intermediate year (2006) in three of the provinces and for the six intervention provinces overall. In fact, at the commune level (table 13), the intervention communes in three of the intervention provinces had higher rates of child injury deaths in 2007 compared with 2005 as did the 72 intervention communes overall.

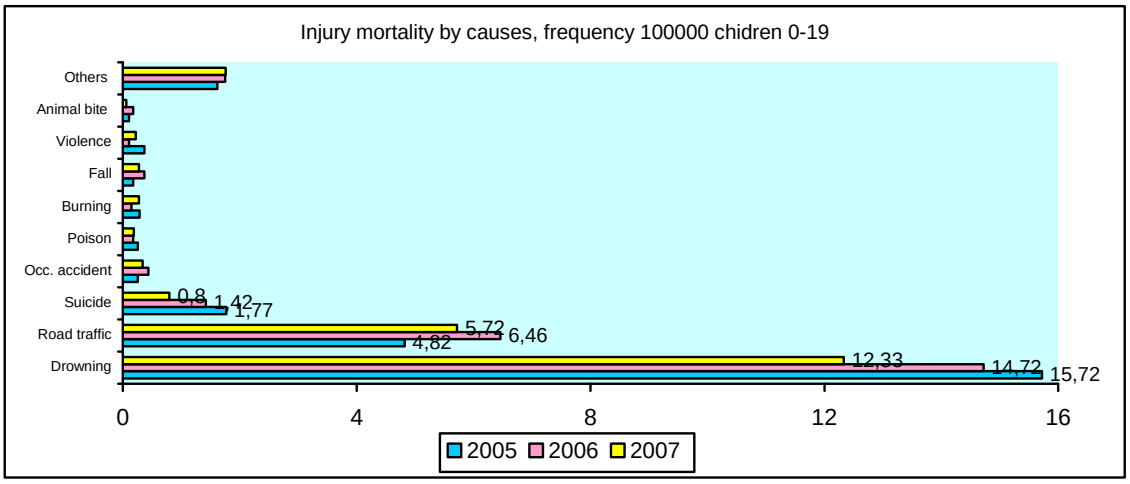
All of these data need to be treated with considerable caution. Only three years of data were available and some other provinces also had reductions in rates. No comprehensive study has been undertaken to compare intervention and control-communities. In particular, studies of impact or intermediate measures are not available to relate any changes in rate to specific interventions or programs.

Table 12: Injury mortality in Vietnam and in six UNICEF project provinces: child and adolescents
0 to 19 years 2005 – 2007, frequency and rate/100.000

Location		**2005**		**2006**		**2007**	
		Cases	*/100,000*	*Cases*	*/100,000*	*Cases*	*/100,000*
Whole country		6,938	*25.8*	7,198	*26.3*	7,894	26.4
Project province		690	*25.4*	706	*25.8*	711	*22.0*
1	Hải Phòng	137	*20.9*	141	*21.5*	156	*22.7*
2	Hải Dương	145	*25.5*	169	*30.1*	121	*22.7*
3	Quảng Trị	86	*37.7*	113	*49.0*	117	*39.3*
4	Th Thiên Huế	90	*23.3*	85	*21.7*	118	*22.8*

5	Cần Thơ	66	*20.1*	61	*18.4*	62	*14.8*
6	Đồng Tháp	166	*30.3*	137	*24.2*	137	*17.5*

Figure 8: Injury mortality: child and adolescent aged 0 to 19 years in six UNICEF provinces ranked by cause 2005 – 2007, rate/100.000



As shown by Figure 8, the child and adolescent drowning rate decreased in the six provinces, though this remains the greatest injury threat to young persons' lives and the rate is high compared with high income countries. No stability in RTI trends is apparent as the rate was greater in 2007 compared with 2005, though it was highest in 2006. The suicide rate also decreased over the three year period. Further years of mortality data are required to confirm trends in rates.

Table 13: Injury mortality of children aged from 0 to 19:
72 project communes 2005 – 2007, frequency and rate/10.000

	Location	**2005**		**2006**		**2007**	
		Cases	*/10,000*	Cases	*/10000*	Cases	*/10000*
	Whole country	6,938	*2.6*	7,198	*2.6*	7,894	2.6
	72 project communes	48	*1.8*	82	*3.1*	63	*2.8*
1	Hai Phong communes	2	*0.4*	8	*1.6*	8	*1.8*
2	Hai Duong communes	5	*1.2*	14	*3.2*	3	*0.8*
3	Quang Tri communes	11	*4.6*	17	*7.0*	7	*3.1*
4	Thua Thien Hue communes	3	*0.8*	13	*3.4*	13	*3.3*
5	Can Tho communes	12	*0.7*	7	*0.4*	13	*1.6*
6	Dong Thap communes	22	*4.6*	25	*5.1*	19	*4.6*

Table 13 indicates an increase in frequency and rate of child and adolescent injury deaths in the actual intervention communes. Given the focus on injuries in these communes, this may reflect improved death reporting rather than a real increase in the death rate. It is otherwise difficult to explain a decrease overall for some of the provinces but not for most of the intervention communes. It should also be noted that the numbers of deaths are small and vary considerably from year to year over the intervention period (increases are highlighted in the table).

Similarly, according to the MOH Department of Preventive Medicine and Environment, injury morbidity and mortality data in five international Safe Communities, from 1998-2005 (ref. 5 first Vietnam communes participated to international safe community network, Sep. 2006), show downward trends for both mortality and morbidity. For similar reasons to the above findings, these results must be viewed with caution. It has also been suggested that the most important outcome of the Safe Community interventions is that the communities can now plan intervention programs and monitor their interventions based on the data system.

6.2.6 Comparisons of injury mortality data from different sources

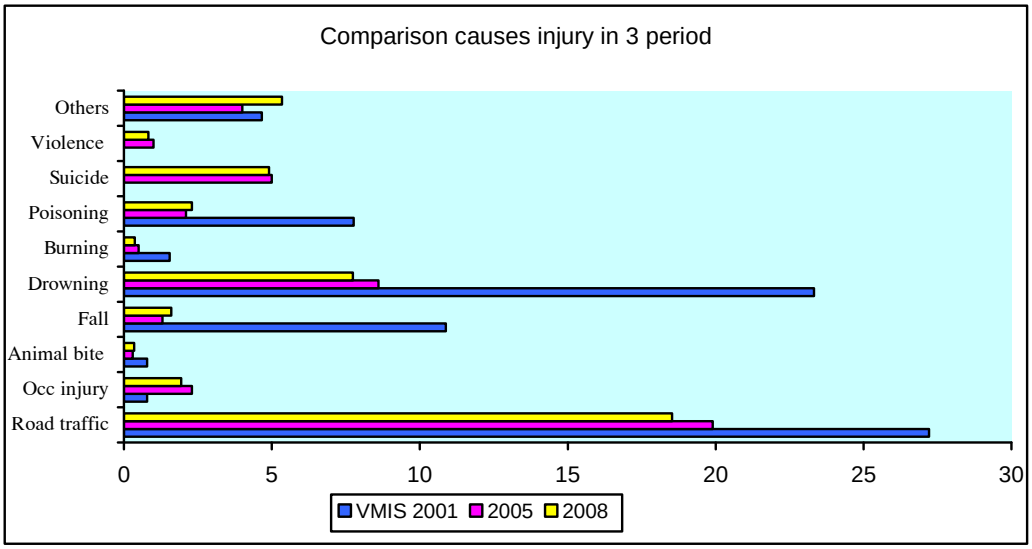
National Multi-Centre Injury Survey (VMIS) 2001

A national household injury survey of 27,000 households was conducted in Vietnam in 2001. Injury was found to account for 10.7% of deaths overall. Although this was a small survey as a proportion of all households and total population, the major data rankings are similar compared with more recent A6 data (Table 14 and Figure 8). Note that injury mortality by causes in 2005 – 2008 show that compared to VMIS 2001 the mortality rate decreased by 50% in 2008 and rates for most injury causes decreased. The highest rates were for road traffic, drowning, falls and poisoning. Only the occupational mortality rate increased. The first two causes, RTI and drowning remain consistent across all three periods and, if suicide and violence are omitted from the rankings, as these do not appear for the VMIS survey, the remaining rankings remain similar. Falls is the only other exception, being higher in the VMIS survey, possibly indicating some overlap with occupational injury deaths.

Table 14: Injury mortality and causes 2008 compared to 2005 and (VMIS) 2001

N	**Cause of injury**	**VMIS 2001**	**2005**	**2008**
	Injury mortality per/100.000	88.4	45.0	43.9
1.	*Road traffic:*(V01-V99)	27.2	19.9	18.5
2.	*Occupational injury* (W20-W49)	0.8	2.3	1.9
3.	*Animal bite* (W50-W64)	0.8	0.3	0.4
4.	*Fall*(W01-W19)	10.9	1.3	1.6
5.	*Drowning*(W65-W84)	23.3	8.6	7.7
6.	*Burning*(W85-W99. X00-X19)	1.6	0.5	0.4
7.	*Poisoning:* (X25-X29. X40-X49)	7.8	2.1	2.3
8.	*Suicide*(X60-X84)		5.0	4.9
9.	*Violence* (X85-Y09)		1.0	0.8
10.	*Others*	4.7	4.0	5.3

Figure 9: Injury mortality by causes 2008 compared to 2005 and (VMIS) 2001



Importantly, the five leading causes have been ranked by age group by the Vietnam Administration of Preventive Medicine (Table 15). This disaggregation shows that, in fact, the rankings differ substantially by age group and this should be recognized accordingly in the targeting of interventions.

Table 15: The five leading causes of injury mortality ranked by age groups (years of age)

	<1	**1-4**	**5-9**	**10-14**	**15-24**	**25-34**	**35-44**	**45-54**	**55-64**	**65+**
1	Drown -ing	Drown -ing	Drown -ing	Drown -ing	Traffic	Traffic	Falls	Traffic	Traffic	Traffic
2	Traffic	Falls	Sharp objects	Traffic	**Drown -ing**	**Drown -ing**	Poison ing	Suffoca tion	Poison ing	Falls
3	Sharp objects	Poison ing	Suffoca tion	Suffoca tion	Poison ing	Falls	Traffic	Electrocu tion	Sharp objects	Burns
4			Poison ing	Electrocuti on	Electroc ution	Electrocu tion	**Drawm -ing**	Falls	**Drown -ing**	Machine
5			Traffic	Others	Falling object	Poison ing	VËt s¾c	**Drown -ing**	Falls	Falling object

Source: Utilization of injury surveillance results for injury prevention in Vietnam
Nguyen Thi Hong Tu, Vietnam Administration of Preventive Medicine

Road traffic deaths

Table 16 and Figure 10 demonstrate major differences between MOH (A6) road traffic fatality and morbidity and the NTSC data for the period 2005-2008, with the NTSC data representing only 72% of the MOH fatality data in 2008 and only 23% of MOH morbidity data (A1) in 2007.

Table 16: Road traffic fatalities A6 and morbidity A1 (Ministry of Health) versus NTSC 2005-2008

Data from different sources	2005	2006	2007	2008
Injury mortality (A6), MOH	31,052	32,157	38,482	34,502
Road traffic(A6)	13,757	14,765	17,923	14,570
NTSC	11,507	12,739	13,150	10,506
% compare data NTSC to A6	83,6%	86,3%	73,3%	72%
Road traffic injury (A1)(a)		345,796	445,048	430,727
NTSC traffic injury	11,760	11,097	10,266	7,771
% compare data NTSC to A1		32%	23%	18%

Source: Statistic the data from health facilities in 51 provinces by Vietnam Administration of Preventive Medicine

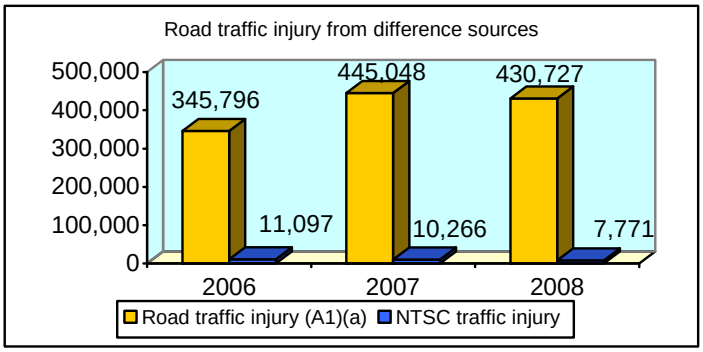
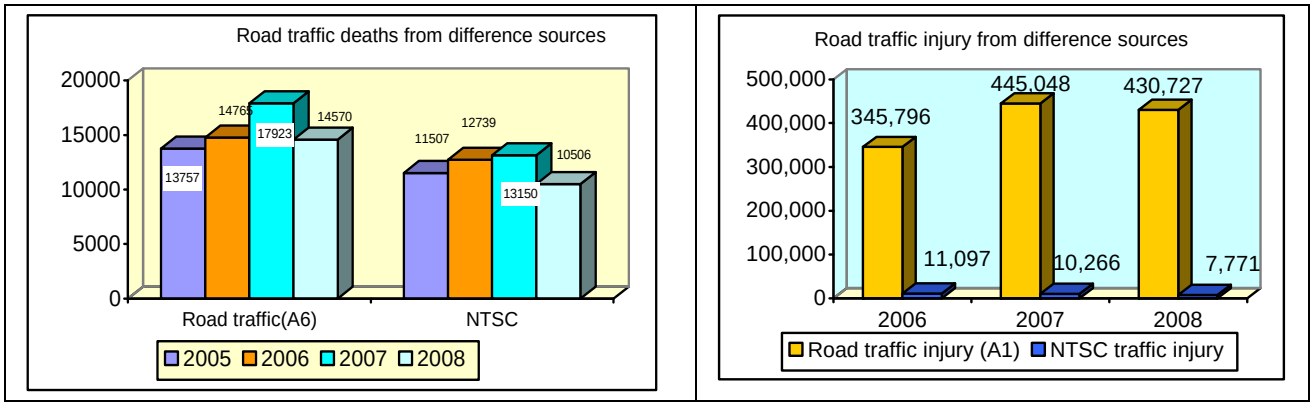


Figure 10: Road traffic fatalities A6 (Ministry of Health) versus NTSC



Over a longer time period, NTSC data shown in Table 17 and Figure 11 indicate that road traffic mortality in the period 2003-2005 increased 11.3% compared to the period 2000-2002, but that road traffic mortality in period 2006-2008 increased only 6.25% compared to period 2003-2005.

Table 17: Comparison of road traffic injury mortality in 3 periods

Years	2000-2002	Average 2003-2005	*Compared to 2000-02*	Average 2006-2008	*Compared to 2003-05*
RT dead cases	10259	11417	*(+) 11.3%*	12131	*(+) 6.25%*

Figure 11: Comparison of road traffic injury mortality in 3 periods

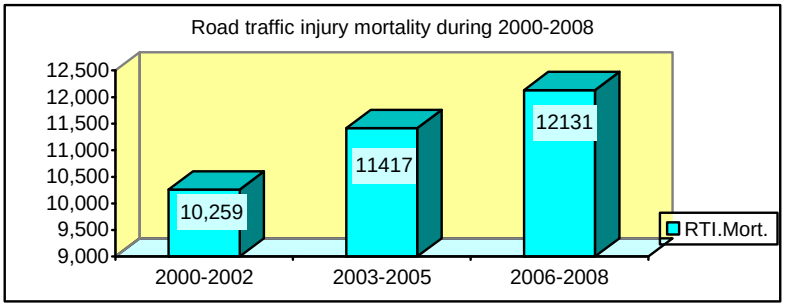


Table 18: Modelled number of road traffic deaths from Global road safety status report WHO, WPRO

	Reported number of traffic deaths(d)	Modelled number of road traffic deaths(e)		Estimated road traffic death rate per 100 000 population(e)
		Point estimate	90% Confidence interval	
WHO Global status	12,800 (2006 data)	14,104	11,987–16,387	16.1
MOH	14,765 (2006 data)			21.2

Notes: (d) Adjusted for 30-day definition of a road traffic death,
(e) Modeled using negative binomial regression, Data from countries with complete vital registration and countries with a population of less than 100 000 were not included in the model

The modelled number of road traffic deaths (based on NTSC data) from the WHO Global road safety status report (WPRO), reflect approximately the MOH data, but the estimated road traffic death rate per 100 000 population is lower than for the MOH data (16.1 vs. 21.2 in 2006).

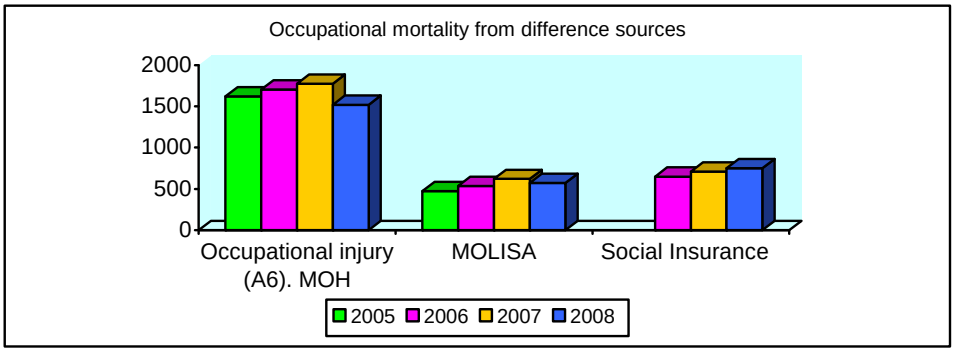
Occupational deaths

Similar, but more dramatic differences are observed when A6 and Ministry of Labour death data are compared for occupational injury for the period 2005-2007 as shown in Table 19 and Figure 12. Ministry of Labour (MOLISA) data accounts for only 29-38% of the Ministry of Health A6 recorded occupational deaths. Social Insurance reported occupational fatality numbers are greater (110-130%), but remain less than 50% of the MOH A6 reported number.

Table 19: Occupational deaths A6 (Ministry of Health) versus Ministry of Labour (MOLISA), and Social Insurance

Death data from different sources	**2005**	**2006**	**2007**	**2008**
All injury mortality (A6)	31052	32157	38482	34502
Occupational injury (A6), MOH	1622	1705	1775	1518
MOLISA	473	536	621	573
% compare data MOLISA to A6	29%	31%	35%	38%
Social Insurance (SI)		650	710	750
% compare data SI to MOLISA		120%	114 %	130%
% compare data SI to A6		38%	40%	49%

Figure 12: Occupational deaths A6 (Ministry of Health) versus MOLISA (Ministry of Labour), and Social Insurance



6.3 Evaluation of achievements:

6.3.1 Introduction

The current review based on the desk review, data review and analysis, interviews and focus groups and written questionnaire responses identified and evaluated achievements and impacts as well as areas where achievements are lacking. A number of common themes emerged from this review.

Notes of interviews are not presented here, because of confidentiality arrangements (section 5.12). However, analysis of the detailed notes of interviews taken by the international consultant were analysed for common and important themes. The results are reported here as achievements, impacts and areas of lack of achievements. They are presented in detail below under a series of sub-headings.

In summary, some of the important themes were:

- All ministries considered injury prevention as an important issue

- Regulations and decrees have been made with regard to injury prevention in most ministries, some quite recently, such as on domestic violence, in the newly formed Department of Family in the Ministry of Culture, Sport and Tourism (Appendix 2).
- Data shortfalls were widely acknowledged
- Capacity for injury prevention was reported as inadequate by most ministries due to staff capacity and knowledge constraints and limited funding, especially from central sources
- Current reliance on international donor funds for some important aspects of injury prevention
- Leadership for national action on injury prevention is lacking
- Lack of inter-sectoral and inter-donor collaboration

6.3.2 Policy and Regulations

Vietnam is one of few countries world-wide that has a National Injury Prevention Policy. Emanating from the policy, many Regulations have been progressively implemented across a wide range of sectors (Appendix 2).

As evidenced by the field work conducted for this review, in the provinces of Nam Dinh and Hai Duong, at least some Regulations have clearly penetrated to the province, district and commune level (eg motorcycle helmet wearing).

A large amount of international donor funds have been attracted for injury prevention in Vietnam, particularly for road safety and child injury prevention.

As evidence has come to hand from data and research, drink driving law have been tightened and penalties increased, the helmet law for children 6 years and older has been tightened and penalties increased for helmet violations.

In addition, new action plans for the current period have been approved for the MOH, MOLISA, Labour, and Sport and a new action plan for Transport is under development (see below).

6.3.3 Action programs 2006 – 2009

This section reports on action programs in 2006-2009 in-line with set strategies and targets by ministerial members as well as the implementation process.

At the national level, a number of new or updated action plans have been developed or are under development. These action plans cover the National Policy objectives and topics and provide indicators for evaluation.

Table 20: Action plans from ministries and agencies

	Action Plan	Ministries	Approval date
1.	Accident and injury prevention program in the community to 2010	MOH	4/2008
2.	Plan of action on childhood injury prevention for 2009-2010	MOLISA	5/2009
3.	Improving, ensuring National road safety until 2010	Ministry of Transport	6/2007

4.	National Program on Labour Protection to 2010	MOLISA	10/2006
5.	Action plan on childhood injury prevention 2009-2012	Communist Youth Union	12/2008
6.	Safe school development and injury prevention in high schools	MOET	8/2007
7.	Universalizing swimming program to prevent injury for children from 2007 to 2010	Department of Sport	3/2007

(1) MOH accident and injury prevention program in the community to 2010 (approved April 2008)

Highlights of the new MOH national targets/goals set from 2008-2010 include:

- >80% provinces/cities to conduct information, education and communication (IEC) injury prevention activities
- >80% provinces/cities to have injury surveillance
- 30% of provinces and cities establishing a network on first aid, medical emergency referral, 50% health facilities at various levels equipped to MOH regulations
- At least 30% staff working on injury prevention to be trained and retrained in the field
- More than 50% of provinces and cities implementing safe models in their communities
- Annual reduction of 10% of injuries (5%-7% in remote and mountain areas)

In addition to these goals and targets, emergency care services, the 115 alert system, and trauma care systems are under development in a number of locations, with international aid, including training of health staff, motorcycle transport squads for emergency care and transport (volunteers to date), and training manuals prepared.

(2) **MOLISA plan of action on childhood injury prevention for 2009-2010 (approved May 2009)**

Specific objectives to 2010:

- >80% of provincial departments of labour, war invalids and social affairs deploying communication activities on childhood injury prevention (CIP)
- Annual reduction of child injuries, especially drowning and injury risks at home
- 20 provinces with highest child injury rates deploying activities on developing and monitoring regulations for Child Safe Homes and child drowning prevention
- 100% provincial officials in charge of child care and protection in general and CIP in particular; 50% of district officials; and 30% of communal officials of MOLISA to have knowledge and skills on CIP
- MOLISA information system on CIP established and in operation

(3) Ministry of Transport: Improving, Ensuring National road safety until 2010 (approved June 2007)

- Improve knowledge, create sense of self-conscious in law executive of people participate in traffic, first is transport controllers
- Strengthen management task of transport vehicle quality; improving capability for law enforcers to ensure road safety, dealing traffic management and safety in transport infrastructure
- Completing system of legal documents in traffic safety and orders; continue improving mechanisms and organizational structure and safety management traffic from central to local
- Reduce the annual road traffic deaths by 5-7%; the number of people killed is 10000, motorized transport decreased from 6.5 to 4.5 by 2010

The Ministry of Transport action plan for the period beyond 2010 is under development.

(4) National Program on Labour Protection to 2010 (approved Oct 2006)

- Training >80% of workers in occupations with strict Oh&S requirements and OH&S officers
- Reduce frequency of occupational accidents by 5% annually
- Control of work environment
- Ensure 100% of equipment with strict OH&S requirements is registered and verified
- Nation-wide implementation, focusing on: mining and quarrying, use of electricity, construction

(9) Other sectors

Communist Youth Union: Action plan in childhood injury prevention 2009-2012

Participate in implementing the national goal of annual reduction of 10% of accident and injury in all social sectors, including children

Targets are that:

- 80% of adolescents union members in urban areas and 70% in rural mountain areas know how to prevent child accident and injury and how to provide first aid
- 100% of teachers, team members, adolescents in all detachments nationwide know how to prevent major accidents and injury such as drowning, traffic, burns and falls

As part of its strategy, the union promotes annual detailed propaganda activities to raise union members, adolescents and social forces' awareness of child injury prevention

MOET: collaborates with MOH to achieve:

- Non-specific targets on Safe Schools, teaching road safety and first aid
- Ban on motorcycles below 16 years of age for school students
- School health care system widely implemented

Department of Sport

- Non-specific targets on swimming and rescue training, though the plan is to universalize swimming programs to prevent injury to children from 2007-2010

Department of Family

- New violence against women regulation and gender equality law implementation phase rolled-out

6.3.4 Program implementation

Many international agencies have collaborated with Vietnamese agencies in the implementation process to formulate the projects with targets, subjects and indicators following the National policy.

Each project has been established with a start-up survey, mid-term review and final evaluation by an independent agency. Major projects are summarized in Table 21. Further detail is available at Appendix 5.

Table 21: Summary of projects implemented

Project area	Project title
Safe community	"Accident and injury prevention, safety community building" in 7 provinces during period 2002-2006 by Preventive Medicine Department and Co-operative Program between Vietnam and SIDA Swedish embassy.
Child injury prevention	"Accident and injury Prevention for children", sponsored by UNICEF, and co-operation with Preventive Medicine Department, conducted in 6 provinces from 2003-2005
	"Model Demonstration and Capacity Building": the refined version of sub-project 2 of the CIP project in the previous cycle, will continue support the 6 piloting provinces to develop further initiated CIP models in their 68 communes, 2006-2010. Implementing agencies: Preventive Medicine Department, People Committee of Hai Phong, Hai Duong, Thua Thien Hue, Quang Tri, Dong Thap and Can Tho
Road traffic injury	" Strengthening community referral emergency response to road traffic injuries in the city of Hanoi, Vietnam " 2005-2007 by WHO and Department of Preventive Medicine, MOH, Tuliem District, Hanoi city.
	Project on road traffic safety, funded by World Bank.
	"Piloting the road traffic safety initiative in Vietnam 5/2008 to 31/12/2009 by MOH and WHO in 3 provinces Yen Bai, Da Nang and Binh Duong and 7 selected hospitals
	"Pilot public safety for motorbikes, road and life 2004-2005" co- operation between Counterpart, Hanoi Red Cross, ASEAN Death prevention fund
Injury Surveillance	"Improving Accident and Injury Prevention Capacity, monitoring injury at hospitals of 3 provinces 2004-2005: co-operation between WHO and Preventive Medicine Department.
	Program "Vietnam injury control 2004-2007: co-operation between Ministry of Health, WHO and Implementing cities: Hanoi, Hai Phong, Thua Thien Hue, Da Nang, Khanh Hoa, Hung Yen
EMS	"Strengthening the capacity of community information coordination for referral of emergency and trauma care" 2006-2008 funded by AP. Implementing agency: DPME, MOH, 4 central Hospitals, 11 provincial Hospitals Hà nội, Huế city.
	"Emergency in Hanoi 2001-2002": Counterpart and Hanoi Health Department
	Program "Vietnam Emergency service 2003-2004": Hanoi, Thua Thien Hue,

	Da Nang, Khanh Hoa by Counterpart and Health Departments
	"Emergency service Open Hanoi-Hai Phong: Counterpart and Health Department 2002-2003
	First-aid training for bomb-disposal team in 2004: Counterpart co-operation with 3 provinces Quang Binh, Ha Tinh, Quang Tri
Rehabilitation	Co-operative program between Vietnam and Holland in rehabilitation by communities in 10 provinces in 2004-2006.

Province level implementation: findings Nam Dinh and Hai Duong

Findings from the desk review, available data and field work included:

- Fatal injury frequencies: increased in both provinces overall in the period 2005-2007 (Table 22). Exceptions were noted for one or two specific injury causes in each province, though numbers of deaths were too small to draw any conclusions from these
- Strong recognition was observed of injury as an important issue at all levels in both provinces
- Both provinces have province, district, commune injury prevention steering committees and associated activities
- In terms of interventions, both provinces have implemented National Regulations; and specific activities such as swimming training programmes, road safety education in schools. Both provinces have implemented Safe Communities, though only Hai Duong has Safe Community training and funding support. High rates of helmet wearing were apparent in both provinces
- No measurement of penetration and impact of Safe Community interventions is available in either province

Table 22: Injury mortality by causes in Hai Duong and Nam Dinh provinces

Injury mortality by causes	2005		2006		2007	
	Hai Duong	Nam Dinh	Hai Duong	Nam Dinh	Hai Duong	Nam Dinh
Road traffic (V01-V99)	198	285	212	256	346	322
	20.4	*16.1*	*22.4*	*14.4*	*27.2*	*18.6*
Occupational injury(W20-W49)	36	41	42	52	52	66
	3.7	*2.3*	*4.4*	*2.9*	*4.1*	*3.8*
Animal bite (W50-W64)	1	6	2	2	2	1
	0.1	*0.3*	*0.2*	*0.1*	*0.2*	*0.1*
Fall(W01-W19)	14	18	20	8	38	30
	1.4	*1.0*	*2.1*	*0.4*	*3.0*	*1.7*
Drowning(W65-W84)	89	185	99	176	114	211
	9.2	*10.4*	*10.5*	*9.9*	*9.0*	*12.2*
Burning(W85-W99. X40-X49)	7	3	2	3	3	6
	0.7	*0.2*	*0.2*	*0.2*	*0.2*	*0.3*
Poisoning (X25-X29. X40-X49)	11	12	2	14	6	38
	1.1	*0.7*	*0.2*	*0.8*	*0.5*	*2.2*
Suicide (X60-X84)	33	69	53	49	42	45

	3.4	*3.9*	*5.6*	*2.7*	*3.3*	*2.6*
Violence (X85-Y09)	6	11	11	9	10	11
	0.6	*0.6*	*1.2*	*0.5*	*0.8*	*0.6*
Others	43	79	51	58	57	89
	4.4	*4.5*	*5.4*	*3.3*	*4.5*	*5.1*

Specific research and intervention materials

This section provides a summary of research surveys and other studies (Table 23), scientific conferences (Table 24) and communications products (Table 25). Further details are available in Appendices 4 and 5.

Table 23: Surveys and research 2006-2009

Road traffic injury
Alcohol and traffic accidents in Vietnam
Prevalence of helmet use among motorcycle riders in Vietnam
Quality assessment on some types of helmet and life jackets available on the market: their protective effect, their popularity and some comments
Child injury
Research on drowning risks of under 18 year-old-children in some communes of Hai Duong, Thua Thien – Hue, and Dong Thap provinces
Survey of the child drowning situation in the Phu Van district, Thua Thien Hue province
Some factors related to non-fatal injuries among children aged 1-5 in 6 Vietnam provinces, 2003
Research on epidemiological characteristics of child burn cases, Children's Hospital, Hai Phong in 2003
Trauma mortality and risks for under 18 year-old children in 6 Vietnam provinces
Research on community's KAP on childhood drowning and prevention measures at some communes of province of Hai Duong, Thua Thien – Hue, and Dong Thap provinces
Child injury surveillance at Can Tho paediatric hospital 2005-2006
Household surveys
Health consequences of domestic violence against women
Model counselling centre for care of victims of gender based violence
Household survey on injury in 3 safe community development communes in Hanoi, Vietnam 2006
Household survey on injury in Hue and Long An province 2005
Household survey on injury in Hai Duong and Hung Yen provinces, 2004
Household survey in Yen Bai, 2005
Trauma care
Preliminary results of Viet Duc Hospital injury surveillance program
A survey on situation and need assessment of pre-hospital trauma care in Hanoi and Khanh Hoa health services.
Epidemiological characteristics related to the severity of unintentional injury of patients entering hospitals
Situation of emergency medicine for serious accident /injury in Tu Lien District - Hanoi
A household survey on injury morbidity and mortality in combined A6_YTCS death registration record in Thua Thien - Hue province
Mortality due to injury at Viet Duc hospital 2002-2003
Consultation and accident/injury emergency response capacity of some hospitals in Thue

Thien Hue province
Pilot research on community information on accident /injury first aid and coordinated transfer of emergency and trauma care in Hanoi and Hue city

Table 24: Scientific Conference 2002 -2008

Scientific Conference	Venue	Date
The first conference on implementing the national policy on injury prevention	Hanoi	12/2002
International Conference on Injury Prevention and Safe Community Development	Hanoi	26-27/10/ 2006
The 2nd Asia Pacific Injury Prevention Conference	Hanoi	04-06/11/2008.

Table 25: Some communication products 2006-2009

Contents	Number
Communication material	
Leaflets	6
Posters	10
Pictorial Safe Community Checklist	1
VCD/DVD	12
Other	3
IP training materials	
Training material	13
Injury Surveillance Books	7
Safe community development materials- Books	4

6.3.5 Cross-cutting developments

Data system developments

Importantly, the available injury data is of sufficient quality to identify the big problems, and further research and development are in progress to enhance the availability and reliability of injury data. For example, an AusAID funded study "Evaluating and enhancing the national mortality reporting system in Vietnam" is in progress.

A key development is that A6 mortality data has been centralized and analyzed from 2005, and morbidity data collection and centralization is progressing, at least for road traffic injury.

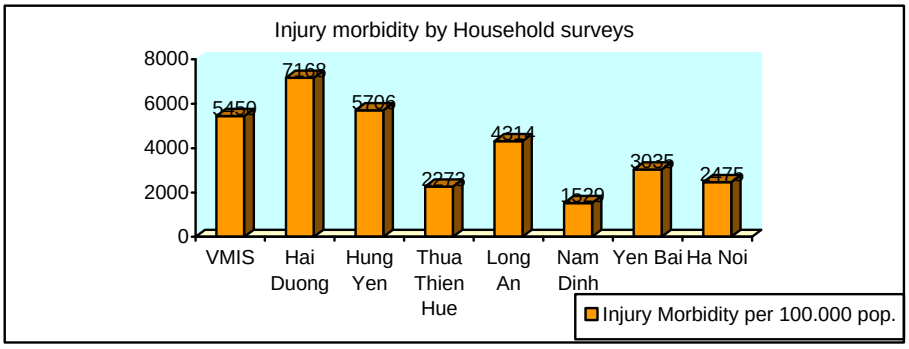
The Ministry of Transport is currently conducting a major internationally funded project (World Bank and JICA) on data system enhancements for road traffic injury.

Provincial household surveys on injury were conducted in 7 provinces and cities in the period 2001-2006 as the basis for specific plans for the respective local situations, and a further survey in Hanoi in 2007 (Table 26). It is difficult to interpret the wide range of morbidity rates between provinces.

Table 26: Injury morbidity by household surveys in some provinces

Household survey	Year of survey	Injury morbidity per 100,000 pop.
VMIS	2001	5450
Hai Duong	2004	7168
Hung Yen	2004	5706
Thua Thien Hue	2005	2273
Long An	2005	4314
Nam Dinh	2006	1529
Yen Bai	2006	3035
Ha Noi	2007	2475

Figure 14: Injury morbidity by household surveys in some provinces



Capacity built for injury prevention

Capacity has been built for injury prevention in a number of ways:

- Injury prevention steering committees have been established at all levels (national, province, district, commune) with partial partial implementation and effect
- Action plans have been formulated and implemented in various national sectors and agencies and most provinces. Of the 64 provinces in Vietnam, 53 provinces have a plan on injury prevention and safe community development.
- Training of professionals in injury prevention has been developed and implemented in the health sector, and some other sectors (eg labour)
- Tertiary training in injury prevention is achieved, to a limited extent through for example the Hanoi School of Public Health and a Road Safety Institute
- The Safe Community and Safe School models have been built and partially integrated and implemented
- National and International collaborations have been created
- International injury prevention conferences have been convened and hosted

Funding

- Substantial funding has been attracted from international donors and as loans, especially for road safety (eg. Greater than US$100 million World Bank and JBIC loan to the Ministry of Transport; UNICEF funding for child injury prevention of approximately US$10 million,

SIDA funding for safe community programs, and emergency care funding from various donors)

- The Vietnamese government has also invested, for example 242 billion VND (US$1.5 million) for National Labour Protection (OH&S)
- 53 provinces have plan on injury prevention, and a provincial budget of 3.2 billion VND (US$200,000)

6.4 Evaluation of impacts

6.4.1 Injury reductions

Injury reductions have been reported for motorcyclist head injuries, though these are inferred from a reduction in road traffic injuries overall and from a corresponding reduction in head injuries (Table 27).

There is possibly also a reduction in road traffic fatality overall, depending on the source since A6 data show a rise while NTSC data show a reduction.

Although there was a reduction in deaths overall in 6 child injury intervention provinces, only three years of data were available and some other provinces also had reductions in rates. Moreover, the specific intervention communes did not show reductions in child injury mortality during the intervention period. See also section 6.2.4 for further discussion.

Table 27: Road traffic injuries in Vietnam before and after 3 months of the motorcycle helmet law

Description	Pre-law Sep-Nov 07	Post-law Jan-Mar 08	% change	OR (95% CI)
Number injury patients brought to hospitals	45.022	37.310	-17.1	0.97 (0.95-0.98)
*Number patients with RTI	26.270	23.512	-10.5	1.22 (1.18-1.25)
Number RTI patients with head injuries	4.683	3.522	-24.8	0.81 (0.77-0.85)
*Number patients died from RTI in hospital	230	197	-14.3	0.96 (0.79-1.16)
Number patients discharged on request to die at home	336	220	-34.5	0.73 (0.61-0.86

* P<0.05 *Source: Department of Preventive Medicine & Environment*

Similar reductions were seen in emergency cases in Cho Ray Hospital, Ho Chi Minh City (Table 28).

Table 28: Road trauma emergency cases in Central Cho Ray Hospital (Ho Chi Minh City) before and after the motorcycle helmet law

	Pre-law 2007	Post-law 2008	Incr./decreasing (+/-)	% Change
Total RT emergency patients	24136	19647	- 4489	- 18.6%
RT patients under <= 15 years	1506	1255	-251	-16.6%
RT Emergency Surgery cases	2779	2104	-325	-11.7%
RT deaths in hospital	252	250	-2	-0.8%

Source: Based from Cho Ray Hospital 2007-2008 data

6.4.2 Intermediate measures

These are measures of the extent to which known effective injury prevention measures have been implemented. They are also sometimes referred to as impact measures.

Motorcycle helmet law

- Technical standards for motorcycle helmets have been developed and promulgated (though enforcement of standards is not clear)
- Helmet wearing rate observational studies in 2009 show:
  - 12% not wearing on work days
  - 15% not wearing at weekends
  - Higher non-wearing rates for young people on week days (14.4%); 14% for pillion passengers; high rates for young pillions: 20% work days, 20% weekends
- Many helmet wearing compliance infringements were recorded in 2008/09. These are intended to be monitored as an indicator of enforcement.

Swimming skills taught

- Many sectors and agencies have established swimming and rescue training (eg Ministry of Sport, Youth Union, communes: Nam Dinh, Hai Duong, cities: Da Nang). However, penetration of this training into the community appears to be low to date with only small numbers reported to have received training.
- Intervention impact measurements are lacking for swimming and rescue training as for many other interventions (eg in Safe Communities, Safe Schools)

6.4.3 Process measures of interventions

- Numerous international consultants engaged (SIDA, WHO, UNICEF, etc)
- International Conference participation by Vietnamese since 2002-2003

- Translation into Vietnamese of WHO materials and guidelines (see Appendix 2)
- Projects established with international collaborators
- National and provincial surveys used WHO material and international consultants
- Establishment of MOH national action plan with multi-sectoral discussion
- Establishment and maintenance of injury web page, injury working group, regular sharing information and outcome in Vietnam and International meetings
- Some evaluation of activities and project evaluation
- Research undertaken and further research in progress on current problems and causes
- Initial commitment from the top level of government (Prime Minister, Peoples Assembly, etc)
- Wide development and distribution of IEC materials by multiple mediums (Appendix 2)
- Training and training manuals developed and provided within sectors (eg health, transport)

6.5 Influencing factors

6.5.1 Introduction

A systematic approach to identifying factors influencing progress on implementation of the National Policy, through the desk review and interviews and focus groups with stakeholders, revealed areas where achievements are lacking, as well as the substantial achievements which have been made (section 6.3).

6.5.2 Achievements lacking

Co-ordination lacking

- Co-ordination was reported and observed to be lacking between national government sectors and agencies and within national government sectors and committees
- Similar effects are reflected in provinces
- There is no all-sector National action plan and there were strong views expressed regarding this need
- The current Injury Working Group meets only spasmodically and then only for information exchange rather than strategic planning and co-ordination

Leadership

There appears to be consensus from interviews and the Workshop that national high level leadership is needed for co-ordinated action. This leadership is required from an authoritative position.

Data

- There is a major lack of data consistency
  - between agencies (see section 6.2.5)
  - over time within agencies
- Completeness of data is inadequate in case capture and data item completion
- A major concern is the lack of detail in data collected. Currently it is inadequate for injury problem definition
- Conciliation of data between sources does not occur

- There are substantial problems with the reliability of recording and coding mortality statistics from civil registration systems to the International Classification of Diseases (ICD) (Rao et al, 2009)

Funding

- The process from funds granted to implementation of programs is slow
- Funding support is lacking to date from multi-national corporations
- Many sectors and the different levels of government indicate that injury prevention funding is insufficient for program implementation, capacity building and research

Capacity

- Staff knowledge and skills in injury prevention is lacking in many sectors
- Capacity in injury prevention appears to be inadequate in general to meet targets
- It was also reported to be inadequate to meet research and training needs
- Local level injury prevention steering committees seek training
- Some available capacity, including that of the Youth Union (20 million membership and available television networks), is apparently under-utilized

Sustainability

- Longer term injury prevention planning is not apparent across sectors and within some sectors
- Self-sufficiency planning for potential future reductions in international donor funds may be lacking
- Adequate public transport to counter unsustainable growth in motor vehicles (and potential consequent RTI) is lacking

6.6 Progress against targets

The National Policy goal was: "To gradually alleviate different types of accidents and injuries such as traffic accidents, accidents at work, at school, at public places in order to achieve good effectiveness in securing safety for people, life, Government, properties and people's wealth being to contribute to the sustainable development of the country from a social-economic and political perspective" with the following specific objectives and indicators identified:

- To improve the awareness and responsibility of all institutions, agencies and individuals so that they can change their behaviours and life style accordingly in order to reduce accidents and injuries
- To implement social mobilisation as related to injury prevention to get sharp attention to injury prevention from the authorities and social organisation at all levels and from the entire population
- To implement strictly and timely measures in order to gradually alleviate accident and injuries, especially serious ones
- Some concrete indicators of different domains to be reduced by 2010 in comparison with the year 2000 are as follows:

1. Reducing accidents at school by 40%
2. Reducing accidents at work by 30%
3. Reducing accidents at home and in the community by 30%

4. Reducing traffic mortality /10.000 vehicles

(Ministry of Health Vietnam – Sweden health co-operation – undated)

Clearly from this review, major progress has been made towards the general implementation of the National Policy in accordance with its objectives, though there is not yet reliable evidence that the specified indicator target levels have been reached, except for road traffic injury. However, in retrospect, the measure of RTI per 10,000 vehicles is not a reliable measure for RTI, since this figure will most likely reduce in any rapidly motorizing country, while other important measures may show increases – such as RTI per 100,000 population. In any case, there are hopeful signs for RTI, since for 2008 there is the potential beginning of a downward trend in mortality and morbidity, as measured by both the MOH and the NTSC, using more than one denominator. Many reasons are described in this report for the current status of injury and its prevention in Vietnam.

7.0 Discussion

This review has utilized a number of resources and field work, both with central government and within two northern-provinces, to identify the current status of injury in Vietnam, particularly relating to the period 2006-2009. From this basis, achievements have been identified and impacts described, to the extent possible, with the limited available information.

Since the National Policy was decreed in 2002, substantial progress on injury prevention has been made in many areas. Areas where achievements are lacking have also been identified in detail.

Comprehensive recommendations are presented below for the further development of infrastructure, governance, sustainability and injury prevention content areas and research.

Importantly, the National Policy itself and many of the action plans and processes have looming end dates, and new or adjusted policies and strategies are needed. While action on new and adjusted policies has commenced in some sectors, the National Policy and Action Plan remains to be addressed.

In addition to the lack of a new high level National Plan, another barrier to progress appears to be the expectation that Ministries and provinces will include injury prevention in their budgets. This was reported by Ministries and provinces to have limited the possibility of receiving additional funds from the Ministry of Finance. Such central government funds were widely believed to be necessary.

As expressed by participants at the Workshop, where the findings of this review were presented, it is of major concern that many of the independent findings of this review are similar to the original priorities identified in the August 2002 document "Health policy and system development": Accident and injury prevention 10/2002 - 9/2006 (ref: Ministry of Health Vietnam - Sweden health co-operation).

Much further deliberation is needed on future leadership and co-ordination of injury prevention in Vietnam, to achieve sustainability and future effective progress against revised goals and targets.

Limitations

The review was limited by a number of methodological issues. The time frame for this review (of 35 days) was substantially inadequate to do full justice to this fundamentally important topic. The scope of the review was further limited by the methods available and the possibility to include only two provinces in the review process.

The marked discrepancies between data from different sources with trends sometimes going in opposite directions, together with sources in communes and districts and the Ministry of Labour reporting apparent undercounts of deaths, suggest major shortcomings in current data systems consequently limiting the capacity of this review to draw important conclusions.

It was of some concern that a number of key stakeholders were nor available to participate in person in interviews and focus groups, completing only questionnaires instead, though the process was deigned for interactive discussion. This lack of availability may have represented the business of the individuals or potentially a lack of interest.

8.0 Conclusions and new directions

Process for taking the findings of this report forward

- A process needs to be identified to collectively take forward for action by a high level of government key concerns and recommendations of government sectors and agencies for National Injury Prevention Policy changes, and co-ordination and leadership.
- Continuation along the impressive path taken to date needs to be confirmed and embedded in Policy and Regulation
- Adequate data systems to describe injury problems, to target interventions and to monitor trends must be implemented urgently
- Important injury causes and settings that are not currently addressed specifically, should be included in future Action Plans
- Support by Vietnam should ultimately be extended to less developed regional countries to learn from Vietnam's successes and make similar progress on injury prevention.

Potential new directions
Some suggestions from the consultants, based on knowledge gained from this review, are:

- Continue efforts at enhanced traffic management and public transport development by additional means. For example: separate traffic by using central pedestrian barriers on major streets and roads; provide safe crossings for pedestrians on major roads and streets by means of traffic lights and signalled pedestrian crossings - with strongly enforced penalties for failing to stop
- Consolidate motor cycle helmet laws by tightening requirements for standard helmets, proper fastening of helmets, increased fines, increased enforcement, public awareness of increased enforcement
- Building regulations and enforcement to be progressively applied to improve the safety of small enterprises and homes (including eg electrical safety, falls protection). For example: identify and address major causes of electrocution. Potential interventions include: wide use of electric circuit breakers, major improvements to electricity supply infrastructure (eg underground wires), enforcement of regulations on unsafe use of electricity (eg killing

fish, rats), labour laws requiring mains electricity to be switched off during electrical work.

- OH&S regulations and awareness programs to be progressively applied to small enterprises and agriculture, accompanied by enforcement. Interviews in the Labour Ministry indicated a gap in compensation for farmers and agricultural workers, who are not wage earners, and not eligible under the workers' compensation scheme. Yet a substantial portion of the population and economy is dependent of agricultural work.
- Suicide and violence interventions, including reduced access to the means (such as pesticides)
- Establishment of additional tertiary injury prevention research and training institutes
- Implement large scale drowning prevention measures as soon as problem definition has been established
- Review and enforce boating regulations to prevent drowning
- Specifically identify bicyclists in RTI data systems to specifically determine and potentially address this likely class of injury fatalities and morbidity
- Specifically quantify unintentional infant suffocation deaths as a likely yet undiscovered cause of preventable infant deaths in Vietnam

9.0 Recommendations

9.1 High level policy review

There was a broadly held view by the key stakeholders interviewed that:

- a high level body is needed to review and update the National Policy for 2010-2020
- an enhanced co-ordination process is required for implementation of a new or revised National Policy
- a concrete National Action Plan is needed across sectors
- the inter-sectoral National Steering Committee should be revived at a similar inter-sectoral high level to the original Steering Committee, with an executive core to drive implementation
- national funding, in addition to sector and province funding, is required for successful injury prevention
- accountability for progress in injury prevention needs to be strengthened for all sectors
- sector and province action plans should be updated following development of a National Action Plan

Other views were expressed, including a suggestion of consideration of injury prevention as a possible National Target Program. It was also suggested that the National Steering Committee could be more inclusive (eg to include the Youth Union).

9.2 All-sector National Action Plan

There was consensus that:

- Concrete guidelines are required
- Co-ordination is essential
- Overlap should be avoided between sector action plans

- Neglected areas should be addressed (agricultural sector, small enterprises, infants eg safe sleeping)

9.3 Data system enhancements

Substantial further action is required to improve the quality of Vietnam's fatal and non-fatal injury data.

Death data

- Increase detail on mechanism, place, activity, and intent in A6 injury data at the point of collection
- Develop standardised guidelines for attributing cause of death for commune data collectors, including clear determination of the inclusion of persons from elsewhere who die within the commune, and the exclusion of persons from their commune whose death occurs and may be recorded elsewhere
- Provide training and ongoing in-service training to commune data collectors
- Investigate discrepancies between NTSC and Ministry of Health road traffic deaths
- Reconcile these data regularly
- Ensure that all road traffic deaths are recorded by road user type
- Attribute death to road traffic injury if it occurs within 30 days of injury, in-line with international standards and with recommendations of the WHO Global Status Report on Road Safety (2009) recommendations
- Where seriously injured persons go home to die, ensure their inclusion in health and police death data collections

Hospital admissions data

- Apply Chapter XX, ICD 10 External cause codes to all hospital admitted injury cases
- Provide software as required to add these codes to hospital data systems
- Designate staff to the coding task
- Provide training on external cause coding to those with responsibility for hospital record coding and undertake quality assurance
- Centralize data on a regular and timely schedule and analyse and disseminate the data

Emergency department injury surveillance

- Establish a sentinel hospital sampling frame for ED injury surveillance (similar to US National Electronic Injury Surveillance System)
- Review data collection form and software to an international standard (eg ICECI)
- Designate staff to this task and provide training
- Undertake regular and timely data centralization
- Conduct data analysis and dissemination centrally

9.4 Research

Recommendations include:

- Conduct risk factor studies (as for alcohol in drivers) to identify intervention points for prevention
- Undertake well-designed controlled evaluation studies to determine whether or not interventions are actually effective
- Conduct impact/intermediate measure studies for interventions to identify whether any changes in injury rates can be explained by the intervention (eg for child injury, community interventions, swimming training for drowning prevention)
- Investigate suffocation as a cause of infant deaths as data are currently not available, yet household surveys in regional countries have identified this as a significant cause of infant mortality
- Include detailed injury questions in next Vietnam Multi Centre Household Injury Survey (VMIS)

A future VMIS study could be an extremely useful tool for injury prevention in Vietnam. A very large well-designed national study could provide an accurate snapshot of the current status of injury in Vietnam and an alternative data source to determine the reliability of commune and hospital-based reports.

It would require:

- A substantially increased sample size over the 2002 survey and additional questions for identified cases of fatal and hospital treated injuries, including questions on risk and protective factors
- Funding, potentially from an international donor. A well-designed study with adequate sample size would be expensive, but highly justifiable.

References

Vietnamese references

1. Ministry of Health (2003). *National Policy on Accident and Injury Prevention. National Steering Committee of Accident and Injury Prevention.* Publishing House of Labor- Social. Hanoi.
2. Ministry of Health (2006). Report of survey on capacity on respond of pre-hospital care in some provinces in Hanoi. 6/2006.
3. Ministry of Health (2006). Report on the implementation of National Policy on Accident and Injury Prevention. in stage 2002-2005. 12/ 2006
4. Ministry of Health (2007). Report of pilot formulation of hospital-based injury surveillance system in 7 hospitals. June 2007.
5. Ministry of Health (2008). Report of the final evaluation of project “"Strengthening the capacity of community information coordination of emergency referral and trauma care."
6. Ministry of Health (2006). Health statistic 2005. p.159- 160.
7. Ministry of Health (2007). Health statistic 2006. p. 159-169.
8. Ministry of Health (2008). Health statistic 2007. p.160-170.
9. Ministry of Health (2008). Report of the implementation of the 32 Government Decree of the Road traffic safety.
10. Ministry of Health (2004). Manual of basic trauma care.
11. Vietnam- Sweden Health Cooperation Program. Ministry of Health (2004). Practical manual for pre- hospital trauma care.
12. Le Tran Ngoan. Nguyen Thi Hong Tu. Nguyen Thi Thu . *Household survey on injury sistuation in Hai Duong and Hung Yen province.*
13. Nguyen Thi Hong Tu. Luong Mai Anh Development and implementation of injury surveillance in Vietnam. -THE SECOND ASIA- PACIFIC CONFERENCE ON INJURY PREVENTION November 4-6th 2008. Hanoi. Vietnam. P. 27.).
14. General Department of Preventive Medicine and Environmental Health. Ministry of Health (2007). *Consultancy skills for injured victims in community.* Medical Publishing House.
15. Hanoi School of Public Health. *Guidelines for conducting the community- based survey on injury and violence.* Medical Publishing House. 2005.
16. General Department of Preventive Medicine and Environmental Health. Ministry of Health 5 first Vietnam communes participated to international safe community network, Sep. 2006

Other references

17. Ministry of Health Vietnam - Sweden health co-operation – undated
"Health policy and system development": Accident and injury prevention
10/2002 - 9/2006)
18. Utilization of injury surveillance results for injury prevention in Vietnam
Assoc. Prof. Nguyen Thi Hong Tu, Vietnam Administration of Preventive Medicine - undated
19. Rao C, Osterberger B, Anh TD, MacDonald M, Chuc NTK, Hill PS Compiling mortality statistics from civil registration systems in Vietnam: the long road ahead. Bull World Health Organ 2009;87:58-65
20. Stevenson, M personal communication
21. WHO Global road safety status report, Geneva 2008
22. WHO Global road safety status report. Western Pacific Region 2009

Appendices

1. Consultancy schedule
2. Categorization and listing of Vietnam materials (form 1b)
3. Interview questionnaires and focus group questions
    - In-depth interview form for ministerial/ sector leaders/ staff (Form 3)
    - In-depth interview form for provincial / sector leaders/ staff (Form 4)
    - Focus group questions for district and communal steering committees on Injury Prevention (Form 5)
4. Data surveillance reports from Ministry of Health during 2006-2009 and earlier data for identification of trends over time: Summary sheet (Form 2b)
5. Summarized injury prevention project results
6. Sources of injury data 2006-2009 (form 2a)
7. Study participants
8. Workshop agenda
9. Workshop participants

Appendix 1: Consultancy schedule

Date	Task
19-21/8/2009	Project tools developed and approved
24/8-3/9/2009	Collection of materials for desk review
5/9-6/9/2009	Weekend
7/9/2009	Meeting of the National and International consultants to review all documents related to task.
8/9/2009 Morning	Work in the Ministry of Health: Leaders who represent the National IP Steering Committee, Leaders and staffs of General Dept. of Preventive Medicine and Environmental Health Members of the CIP central Project Management Board (PMB) (from the Viet Nam Administration of Preventive Medicine and Environment Health)
Aftenoon	Work with Institute of Health Policy and strategy, MOH Education & Communication Center, MoH
9/9/2009 Morning	Work in the Ministry of Labor- Invalids and Social Affairs (MOLISA) 3 leaders of Dept. of Child Protection and Labour protection Administration
Afternoon	3 staff representatives for the CIP central Project Management Board (PMB) and National program of safety & occupational Health
10/9/2009 Morning	Work in the Ministry of Education- Training (MoET) - 3 leaders/ staff in charge of Child Injury Prevention, preferably developing/ releasing the legal documents of Safe School, child drowning prevention, School- friendly model
10/9/2009 Afternoon	Meeting with injury working group
11/9/2009 Morning	Work in the Ministry of Transport (MoT) - 3 leaders/ staff in charge of road injury prevention, road safety
11/9/2009 afternoon	Work in the Ministry of Communication - 3 leaders/ staff in charge of injury prevention propagation and communication
12-13/9/2009	Weekend
14/9/2009 Morning Afternoon	Go to Nam Dinh province. In-depth Interview. 4 persons of Provincial Steering Committee of Injury Prevention (included Vice Chairman of People's Committee; Transport service; Labor- Invalids and Social Affairs service; Education- Training Service; Youth organization
15/9/2009 Morning	In-depth Interview (continue) 4 persons of Provincial Steering Committee of Injury Prevention (Health Service; Communication Service and 2 others selected by provincial Steering Committee of Injury Prevention)
Afternoon	Group discussion: District Steering Committee of Injury Prevention

	(8 persons, included Vice Chairman of People's Committee and Health Center, other relevant agencies x 1 district)
16/9/2009 Morning	Group discussion: Communal Steering Committee of Injury Prevention (10 persons, included Vice Chairman of People's Committee and Health Center, other relevant agencies x 2 communes): 1 non- project might be selected. 4 persons from 1 primary and 1 secondary schools
Afternoon	Go back to Hanoi
17/9/2009 Morning Afternoon	Go to Hai Duong province Interview. 8 persons of Provincial Steering Committee of Injury Prevention (included Vice Chairman of People's Committee Vice Chairman of People's Committee and Health Center, other relevant agencies)
18/9 /2009 morning	Group discussion: District Steering Committee of Injury Prevention (8 persons, included Vice Chairman of People's Committee and Health Center, other relevant agencies x 1 district)
Afternoon	Group discussion:Communal Steering Committee of Injury Prevention (10 persons, included Vice Chairman of People's Committee and Health Center, other relevant agencies x 2 communes): 1 CIP project commune. 4 persons from 1 primary and 1 secondary schools
19-20/9/2009	Weekend
21/9/2009 morning	Work in the Ministry of Industry. - 3 leaders/ staff in charge of developing the model for safe production
21/9/2009 Afternoon	Work in the National Committee for Sports 3 leaders/ staff in charge of developing the model of safe sport
22/9/2009	Work in the Youth agency - 3 leaders/ staff in charge of developing the model of safe sport
23/9/2009 Morning	Work in the Ministry of Health 6 MoH leaders being the members of National Steering Committee of Injury Prevention of the health sectors Dept. of Health service management; Dept. of Planning- Finance, Dept. of International Policy
23/9/2009 Afternoon	Work with UNICEF staff.
24/9-27/9/2009	Data analysis
28-29/9/2009	Draft report preparation
30/9/2009	**Workshop.** - Present key findings and recommendations to key related stakeholders and facilitate discussions on policy-related follow-up
3/10/2009	Finalize the draft report based on comments from stakeholders

Appendix 2: Categorization and listing of Vietnam materials (Form (1b)

1. Injury prevention legal documents 2006-2009

Law	
1.	Domestic violence prevention law No.12/2008/QH12 on 21-11- 2008
Injury prevention legal documents 2006-2009 **Health Sector**	
1.	Decision of the Minister of Health on the establishment of the Steering Committee of Injury Prevention of the health sector
2.	Decision of the Prime minister No 255/2006/QD-TTg 09/11/2006 Approving the Vietnam national Strategy on preventive medicine to 2010 and orientations towards 2020
3.	Decision of the Minister of Health No370/2002/QĐ-BYT date 7/2/ 2002 on National standart on commune Health in period 2001-2010
4.	Gov. Decree No 49/2003/NĐ-CP on function and task of the ministry of health in accident and injury prevention
5.	Decision of the Minister of Health No 4351/2003 on function and task of the Department of Pveventive medicine and HIV/AIDS on accident and injury prevention
6.	Decision of the Minister of Health No 4696/QĐ-BYT ngày 27/11/2008 issued the National Standard of the provincial Pveventive medicine period 2008-2015 include the monitoring and report on injury data and develop safe community movement
7.	Minister of Health has issued the Circular No 03/2007/CT-BYT June, 28th 2007 on strengthening functional rehabilitation
8.	Decision by the Minister of Health N0 17/2008/QĐ-BYT date 28/ 4/ 2008 issuing the national action plan on AIP in community untill 2010.
9.	Decision by the Minister of Health 170/QĐ-BYT ngày 17/ 01/ 2006 issuing the national guidelines for safe community development.
10.	Decision of the Minister of Health 40/2006/QĐ-BYT ngày 25/12/2006 issuing the statistic criteria system of the health sector.
11.	Decision by the Minister of Health No.25/2006/QĐ-BYT ngày 22/8/2006 issuing the guidelines for injury recording form integration into the existing health reporting system.
12.	Decision by the Minister of Health No.1356/QĐ-BYT ngày 18/4/2008 issuing the guidelines for injury recording form
13.	Minister of Health issued Instruction No 04/2007/CT-BYT on 8 November, 2007 implementing the solution No 32/2007/NQ-CP on some urgent solutions to curb traffic accident
14.	Decision by the Minister of Health N0: 12/2008/QĐ-BYT date 27/02/ 2008 issuing the criteria on knowledge, skill of health staff and equipment of basic trauma care.
15.	Decision by the Minister of Health N0: 01/2008/QĐ-BYT date 21/ 01/ 2008 issuing regulation on emergency, active recuperation and poisoning control.
Injury prevention legal documents 2006-2009 ***Transport sector***	
1.	Road safety Traffic Law number 23/2008/QH12 on 13/11/2008
2.	The Resolution No 32/2007/NQ-CP on June 29, 2007 by the Prime Minister on some

	urgent solutions to curb traffic accident
3.	Circular No. 01/2003/TT-BGTVT of Ministry of Communication and Transport guiding helmet when driving motorbike.
4.	Circular number 13 /2009/TT-BGTVT on 17/7/2009 of Ministry of Communication and Transport stipulate on speed and distance of mechanism vehicles and motorcycles that are used on road traffic
5.	Government Decree number _46/2007/ NĐ-CP on 14/09/2007 of prime Miníter stipulate on penalizing administrative violation in road traffic field
6.	Direction No 07/2008/CT-BGTVT 30/05/2008 of increasing propaganda and education on traffic law 2008-2012
7.	Decision of Minister No 10/2008/QD-BGTVT 13/06/2008 on safe aviation regulation
8.	Decision number 07/2009/ QĐ-TTg on 26/08/2009 of Ministry of Communication and Transport stipulate function, mission, authority and organization structure of General Department of Road directly under Ministry of Communications and Transports
9.	Circular No.10/2009/TT-BGTVT on 24/06/2009 of Ministry of Communication and Transport about inspecting techniques' safety and protect environment for road traffic vehicles
10.	Circular number 11/2009/TT-BGTVT on 24/06/2009 of Ministry of Communication and Transport stipulate on conditions with Register Center with road traffic vehicles
11.	Circular No.09/2009/TT-BGTVT on 24/06/2009 of Ministry of Communication and Transport stipulate on complementing law knowledge of traffic road for road vehicle controllers
12.	Circular No.08/2009/TT-BGTVT on 23/06/2009 of Ministry of Communication and Transport instruct using primitive vehicles, motorbike, 2 or 3-wheels motorcycle and other similar vehicles to transport goods and passengers
13.	Circular No. 07/2009/TT-BGTVT on 19/06/2009 of Ministry of Communication and Transport stipulate on training, examination and licensing driver licenses for road traffic
14.	Circular No 17/2009/TT-BGTVT 11/08/2009 of report and investigating shipping accident
15.	Circular No 10/2009/TT-BGTVT 24/06/2009 of safe technical examination, environment protection and road traffic means
Injury prevention legal documents 2002-2006 ***Occupational sector***	
1	The National Programme on Labour Protection, Occupational Safety and Health up to 2010 was officially approved by the Prime Minister on 18thOctober, 2006.
Injury prevention legal documents 2002-2006 ***Child injury prevention***	
	Decision No. 589 /QĐ- BLĐTBXH, 11/ 5/ 2009 On the approval of the MOLISA plan of action on childhood injury prevention for the period of 2009-2010
Ministry of Training and Education	
1.	Decision No 4458/QĐ- BGDDT, August 22, 2007 by Minister of Training and Education assigned to build Safe school t and injury prevention in high school
2.	Decision No.73 assigned on health activities in all education levels
3.	Decision No.17 assigned on health activities in all universities, colleges level
4.	Decision No.58 assigned on health activities in all pre-schools

5.	Minister Decree No52: strengthen traffic safety education training.
Ministry of Public Security	
1.	On 5th January 2007, Minister of Public Security signed to promulgate a Decision No 18/2007/QĐ- BCA (C11) promulgating Road traffic crashes investigation and handling procedure
Ministry of Science and Technology	
3.	Decision No 04/2008/QĐ-BKHCN 28th April 2008 of Minister of Science and Technology promulgated on National technical standard on protective helmet for users of motorcycles and mopeds

2. National Action Plan of Ministries-Sectors

Health Sector	
1	Decision by the Minister of Health N0 National action plan on AIP in period 2003-2005.
2	Decision by the Minister of Health N0 17/2008/QĐ-BYT date 28/ 4/ 2008 issuing the national action plan on AIP in community untill 2010.
Transport sector	
3	Decision No 259/QD-TTg 04/03/2008 of prime Minister on ratifying national project of increasing to ensure national safety traffic to 2010
4	Plan of Safe traffic Committee No 408/UBATGTQG 22/12/2008 of Ensuring safe traffic in 2009
Occupational sector	
5	The National Programme on Labour Protection, Occupational Safety and Health up to 2010 was officially approved by the Prime Minister on 18the October, 2006.
Child injury prevention	
6	Decision No. 589 /QĐ- BLĐTBXH on 11/ 5/ 2009 of the MOLISA On the approval action plan of on childhood injury prevention for the period of 2009-2010.
Ministry of Training and Education	
7	Decision No 4458/QĐ- BGDDT, August 22, 2007 by Minister of Training and Education assigned to build Safe school t and injury prevention in high school
Communist Youth Union	
8	Work plan No: 237 KH/TWUTN Dec, 12th 2008 of Communist Youth Union of Hochiminh participate in childhood injury prevention 2009-2012.

3. *Strengthening capacity on management and first aid*

Ministry of Training and Education	
1.	Training courses for managers and teachers in injuries prevention.
2.	Teach in and outside campus about "Safe environment, accidents and injuries prevention".
3.	organize meetings and conferences about training in accidents and injuries prevention, safety traffic
4.	Propagandize "Students implement traffic rules model"

4.Training materials

Ministry of Training and Education. Books	
1	Safe environment, accidents and injuries prevention for elementary students.
2	Training in accidents and injuries prevention for middle school students

5. WHO AIP materials in Vietnamese

Ref.	***WHO AIP materials in Vietnamese***
1.	Injury Surveillance Guidelines, Geneva, WHO, 2001
2.	Injury- a leading cause of global burden of disease , Geneva, WHO, 200
3.	Conducting community-based injury and violence surveys, Geneva, WHO, 2004
4.	Injury prevention for Child and adolescent WHO action plan period 2006-2015
5.	World report on child injury prevention, Geneva, WHO, 2008
6.	Developing National Policies To Prevent Violence and Injuries A guideline for policy-makers and planners.
7.	Preventing injuries and violence: a guide for ministries of health. Geneva, WHO, 2007
8.	5 years of WHO Strategy on Road traffic injury prevention 2001-2005.
9.	World report on road traffic injury prevention, Geneva, WHO, 2004
10.	Helmet " A road safety manual for decision- makers and practitioners"
11.	Injury prevention for Alcohool user
12.	Training, Educating, Advancing Collaboration in Health on Violence and Injury Prevention (TEACH-VIP) Manual for Instructors
13.	Training, Educating, Advancing Collaboration in Health on Violence and Injury Prevention (TEACH-VIP) CORE MODULE(Project summary)
14.	Guidelines for essential trauma care, Geneva, WHO, 2004
15.	Prehospital trauma care systems. Geneva WHO, 2005

6. Injury prevention Books developed by projects

A	***Books***
1.	IEC skills for injury prevention/safe community development
2.	Injury prevention guidelines for health managers
3.	Handbook of childhood injury prevention
4.	Handbook guiding the childhood acute poisoning control and prevention
5.	Handbook for childhood injury prevention's collaborator
6.	Guidelines for outpatient injury emergency practice
7.	Guidelines for road traffic injury first aid
8.	Guidelines for burn injury first aid and prevention

9.	Guidelines for providing first aid to common childhood injuries,
10.	Guidelines for childhood poisoning treatment and prevention.
11.	Guidelines for child burn first aid, treatment and prevention
B	***Injury Surveillance= Books***
12.	Guidelines for injury statistics reporting
13.	Guidelines for injury surveillance
14.	Guidelines for injury household survey
15.	Injury recording form
16.	Injury statistics report
17.	Injury assessment indicators at different fields
18.	Annual Health statistics from 2002 to 2008
C	***Safe community development materials- Books***
19.	Guidelines for Safe Community Development, MOH 2004 and 2006
20.	Guidelines for Participatory Rapid Appraisal in Safe Community Development, MOH, 2006
21.	The 05 Vietnamese Safe Communities designated as members of WHO Safe Community network
22.	Experiences in Safe community development, 2006

7. Injury prevention information and communication

	Newsletter of Injury Prevention (08 editions since 2002)
A	***Leaflets***
1.	Let's actively prevent injuries toward safe community"
2.	injury first aid in community
3.	Traffic Safety is No Accident" Leaflet of Road Traffic Injury Prevention
4.	Call 115 and treatment skills when the ambulance is not on site.
5.	childhood burn injury first aid and control
6.	03 kinds of leaflet on "Safe home", "Safe school", "Safe Community" checklist
B	***Posters***
1.	Childhood Burn Prevention
2.	Fall Prevention in Construction"
3.	Let's eliminate the childhood injury risks
4.	02 kinds of poster Teaching swimming
5.	Traffic Injury is preventable
6.	For Family Happiness, Let's actively prevent injury"
7.	Strictly Comply with Traffic Law
8.	Childhood Injury Prevention;
9.	02 kinds of poster on "Safe home", "Safe school", "Safe Community" standards
C	***Pictorial brochure***
	Pictorial Safe Community Checklist
D	***VCD/DVD***

1.	VCD. report on burn prevention, safe home, traffic safety
2.	VCD/DVD and video of Vietnam safe community movement;
3.	Video of injury prevention and safe community development messages in Vietnam
4.	VCD, Guidelines for providing first aid to frequent child injuries (02 discs)
5.	VCD, film of " Sand Castle", "Fire Cracker" and "Club behind river"; short-film "My Sister" (Episode 1 and 2);
6.	short-film " Childhood Injury Prevention
7.	Messages for Childhood Injury Prevention
8.	"Unforgettable summer day", (Childhood Injury Prevention)
9.	"Person build home" (Childhood Injury Prevention)
10.	How to prevent child drowning
11.	"Social knowledge on traffic injury for children
12.	Legend Garden – Traffic Safety
E	***Other***
1.	04 application documents of Vietnamese safe communities to register to the safe community network
2.	02 kind of safe community logos (small and medim size)
3.	03 kinds of certificate "Safe home", "Safe school", "Safe Community"

8. Summarized injury prevention research results: publications and scientific conference.

A	**Report, evaluation of the projects**
1.	Middterm evaluation report of the Project AIP and safe community Development funded by SIDA, 2005, RECAIP
2.	Final report of the Project AIP and safe community Development funded by SIDA, 2003-2006
3.	Report on implémentation of the National Policy on AIP 2003-2005, Département of Préventive Médicine, MOH.
4.	Final report of the Project AIP for children 2003-2005 (Unicef) Département of Preventive Medicine, MOH.
5.	report of RTA prevention in Heath Sector, Department of Preventive Medicine, MOH.
6.	Report on implementation of the National policy on AIP 2002-2007, Department of Preventive Medicine, MOH.
7.	Annual report on AIP from 2003 to 2008. Department of Preventive Medicine, MOH.
8.	Final report of the Project "Strengthening the capacity of community information coordination for referral of emergency and trauma care" 2006-2008 funđe by AP.
B	**List of survey and research**
1.	Alcohol and traffic accident in Vietnam
2.	Prevalence of helmet use among motorcycle riders in Vietnam
3.	Cross sectional study occupational injuries in Vietnam
4.	The pattern of at work injuries in Viet Nam
5.	Investigation of occupational needle stick injury in some selected health care settings in Hanoi
6.	Research the drown risks of under 18 year-old-children in some communes of Hai

	Duong, Thua Thien - Hue and Dong Thap province
7.	Some factors related to non-fatal injuries among children aged 1-5 in 6 provinces of Vietnam 2003
8.	Quality assessment on some types of helmet and life jacket available on the market: their protection effect, their popularity and some comments
9.	Research the epidemiological characteristic of burned cases of children in Children's Hospital in Hai Phong 2003
10.	A survey childhood drowning situation in Phu Van district, Thua Thien Hue province
11.	Situation of the mortality of trauma and effective risks for under 18 year-old children in 6 province in Vietnam
12.	Research on communities 's KAP on childhood drowning and prevention measures at some communes of province of Hai Duong, Thua Thien - Hue and Dong Thap
13.	Childhood injury surveillance at Can Tho pediatric hospital 2005-2006
14.	Health consequences of domestic violence against women
15.	The model of center for counseling and care for victims of gender based violence
16.	Households survey on injury in 3 safe community development communes in Hanoi, Vietnam 2006
17.	Households survey on injury in Hue and Long An province 2005
18.	Households survey on injury in Hai Duong and Hung Yen province 2004
19.	Households survey in Yen Bai 2005
20.	Preliminary result of the injury surveillance program at Viet Duc Hospital
21.	A survey on situation and need assessment of pre-hospital trauma care in Hanoi and Khanh Hoa health services.
22.	Epidemiological characteristic related to the severity of injury (by accident) of patients entering hospitals
23.	Situation of emergency medicine for serious accident /injury in Tu Lien District - Hanoi
24.	A survey on morbidity an death due to injures in households in combination A6_YTCS death registration record in Thua Thien - Hue province
25.	Mortality due to injury at Viet Duc hospital 2002-2003
26.	Consultation and accident/injury emergency response capacity of some hospitals in Thue Thien Hue province
27.	Pilot research on community information on accident /injury first aid and coordination transference of emergency and trauma care in Hanoi and Hue city.
C	**Scientific Conference**
1	Abstract and full Report of the 1st national scientific conference on injury prevention 12/ 2002.
2	CD, Abstract and full Report of the international scientific conference on injury prevention/safe community development, Hanoi- Vietnam, October 26-27, 2006
3	CD, Abstract and Report of the international scientific conference on injury prevention/safe community development, Hanoi- Vietnam, November 1-4, 2008
Scientific Conference outcome from 2002 -2008	
1	**The first conference on implementing the national policy on injury prevention**: **12/2002**
	400 participants, 47 scientific reports and drafts of action plan of Ministries/Branches Steering committee at branches and provincial level. on AIP Centre level: 20/31 Ministries and Sectors Province level: 30/61 provinces. Steering road safety board: 53/61 provinces. Circular No. 01/2003/TT-BGTVT of Ministry of Communication and Transport guiding

	helmet when driving motorbike. Many regulations concerning road safety.
	In the closing of the conference: Minister of Health suggested to submit to government: establish the National board of traffic and injury prevention base on the National traffic safety committee and the National Steering committee of injury prevention.
2	**International Conference on Injury Prevention and Safe Community Development, from 26 to 27th Oct 2006 in Hanoi,**
	There are nearly 300 delegates, 50 international delegates among them and scientists come from 11 countries in Asia area and in the world; It's represent of international organizations in Vietnam, represent of Ministries/Branches and national scientists. Minister of Ministry of Health state to begin the meeting There are 80 scientific reports being present in meeting Summarize 2002 – 2005 period of National policy of injury prevention The former President Phan Van Khai also negated in "The global report about safe traffic" being published by WHO and WB 2002.
	In the conference of admitting 5 Vietnam communes to have standard about international safe community. Implemented injury prevention network in Vietnam Continue to deploy national policy in 2006 – 2010 period
3	The 2nd Asia Pacific Injury Prevention Conference, Hanoi 04-06/11/2008. An event hosted and organized by the Ministry of Health of the Socialist Republic of Vietnam, with the support of international organizations.
	To attend in the meeting, there were Vice President of Vietnam government, Minister of Ministry of Health and nearly 400 international and national delegates. 230 international delegates among them are from 30 courtiers in Asia areas and in the world. 120 report and focus on discussing 13 subjects. Vice President Nguyen Thien Nhan also evaluated highly the role of health sector, union organizations, international organizations like WHO, UNICEF in propaganda, researching, supervision as well as effectively implementing plans of building safe models in community to contribute importantly in processing of reduction about injury in Vietnam. He also on behalf of Vietnam government committed to continue developing national plan of injury prevention 2011 – 2020 period and desired to continue receiving aid from other courtiers and international organization to develop Vietnam to be come "Safe coming place", as well as continue confirming our role in global injury prevention.
	A declaration adopted by the participants and delegates of the 2nd Asia Pacific Injury Prevention Conference, support for the prioritization of injury and violence prevention in the countries of the Asia Pacific region. 1. Commitment to strengthen efforts for prevention, but at the same time highlight the need for technical and financial support from donors, international agencies and academic colleagues in high-income countries towards these efforts, particularly in low and middle income countries. 2. Concurrence to the importance of priority attention to the following areas: - strengthening of information systems for injury and violence, including vital registration systems and the inclusion of injury in existing public health surveillance; - strengthening the use of data for advocacy, program development, evaluation and policy development; - larger investment into proven prevention interventions, for example ↓ a helmet programme (including legislation, education and enforcement) for

	all motorcycle riders and their passengers; - prevention of drinking and drinking; and; - prevention of drowning and other leading causes of child injury; - strengthening the chain of care from first aid by first responders through to the development of health service or community based rehabilitation; - strengthening the local community in their efforts to prevent injuries (e.g. Safe Communities) - timely and appropriate scientific evaluation of interventions, dissemination of the findings and program adjustments based on results if necessary. 3. Position to support the development of technical capacity in colleagues from low and middle income countries.
	Participants and Delegates of the 2nd Asia Pacific Injury Prevention Conference welcome the upcoming global launch or the World Report on Child Injury Prevention and call for it to be given due attention in international political forums and at national level through the organization of policy discussions to explore how best to implement its recommendations.
	Ministry of Health organized successfully the Global announcement meeting about child injury prevention with nearly 200 participants. The vice president of Vietnam government also took part in this meeting, Ministry of Health's and Ministry of Labor's leaders as well as other relevant branches.

Appendix 3: In-depth interview form for ministerial/ sector leaders/ staff (Form 3)

Explanation:

Our task, funded by UNICEF, is to evaluate the implementation of national policy in injury prevention in the period 2006-2009 in line with the set strategies and targets by ministerial members of national steering committee. It is important to gain a clear understanding of progress to date as recommendations are to be made for any adjustments to policy and/or further development of the National Policy.

Information provided in this interview is confidential and interview information will be aggregated and de-identified in our evaluation report.

Interviewers:

Professor Joan Ozanne-Smith MBBS, MPH, MD, FAFPHM, Monash University Australia
Assoc Prof: Nguyen Thi Hong Tu, MD, MPH, PhD, Vietnam

Demographic data collection form:

Demographics: Interview participants **Interview number____**

Consent to interview	
Interview date	
Location	
Agency	
Participant role in agency	
Participant years in role	
Participant gender	
Injury prevention responsibilities **1.**	
2.	
3.	
4.	

Interview questions

General:

1. Which components of the national policy are in the jurisdiction of your Ministry?

2. What programs were implemented?

3. Overall, what have your Ministry's key injury prevention achievements been since 2002 and in the past 3 years?

4. What is the level of inter-sectoral collaboration for injury prevention:

- Between government sectors?
- Between donors?
- With researchers?

5. Has the injury prevention strategy driven programs or have other factors operated – such as donor interests?

6. What factors have influenced your Ministry's/Agency's implementation of injury prevention programs:
   - Facilitators?
   - Barriers?

7. To what extent has capacity been built in injury prevention? Is there at least one full-time person responsible for injury prevention in your Ministry/agency?

8. At what level in your agency is injury prevention addressed?

9. What is your Ministry/agency doing to increase knowledge and skills training in injury prevention (internally and externally?)

10. What resources are devoted to injury prevention by your agency?

11. Is your Ministry/agency on track to achieve the following targets:
    - To reduce the traffic deaths from 14/10,000 transport mean to 11/10,000 mean by 2010.
    - To reduce the frequency of occupational injury, in general, from 0.42% to 0.4% employees and the mortality caused by occupational injuries from 8/100,000 to 7/100.000 employees by 2010.
    - To reduce 40% injury or accident cases in schools by 2010
    - To reduce 10% injury cases in community, including children by 2010

In-depth interview form for provincial / sector leaders/ staff (Form 4)

Explanation:

Our task, funded by UNICEF, is to evaluate the implementation of national policy in injury prevention in the period 2006-2009 in line with the set strategies and targets by ministerial members of national steering committee. It is important to gain a clear understanding of progress to date as recommendations are to be made for any adjustments to policy and/or further development of the National Policy.
Information provided in this interview is confidential and interview information will be aggregated and de-identified in our evaluation report.

Interviewers:

Professor Joan Ozanne-Smith MBBS, MPH, MD, FAFPHM, Monash University Australia
Assoc Prof: Nguyen Thi Hong Tu, MD, MPH, PhD, Vietnam

Demographic data collection form:

Demographics: Interview participants Interview number___

Consent to interview	
Interview date	
Location	
Agency	
Participant role in agency	
Participant years in role	
Participant gender	
Injury prevention responsibilities 1.	
2.	
3.	

Interview questions

General:

1. Which components of the national policy are in the jurisdiction of your province?

2. How many action plans injury prevention from Ministries/branches have your province were implemented?

3. How many programs /projects have your province were implemented?

4. Overall, what have your province key injury prevention achievements been since 2002 and in the past 3 years?

5. What is the level of inter-sectoral collaboration for injury prevention:

- Between local agencies in your provinces?
- Between government sectors?
- Between donors?
- With researchers?

6. Has the injury prevention strategy driven programs or have other factors operated – such as donor interests?

7. What factors have influenced your province implementation of injury prevention programs:
   - Facilitators?
   - Barriers?
8. Do you have any difficulties during implementation of National policy?

9. To what extent has capacity been built in injury prevention? Which sector in your province is the coordination role, and is there at least one full-time person responsible for injury prevention in your province?

10. At what level in your agency is injury prevention addressed?

11. What is your province doing to increase knowledge and skills training in injury prevention (internally and externally?)

12. What resources are devoted to injury prevention by your agency?

13. Is your province on track to achieve the following targets: compare to 2000
    - To reduce the traffic deaths from 14/10,000 transport mean to 9/10,000 mean by 2010.
    - To reduce 30% the frequency of occupational injury by 2010.
    - To reduce 40% injury or accident cases in schools by 2010
    - To reduce 30% injury cases in family and community, including children by 2010

14. What lessons have been learnt by your province in implementing the strategy?

15. What adjustments to policy or further development of the National Policy would you recommend?

For each specific program or intervention:

Program I

1(a). Program/intervention title
1(b). Was the program based on evidence? Please specify.
1©. Were baseline data and other baseline information available? Please specify.
1(d). What was the reach of this program?
1(e). How effective was this program?
1(f). What were the outcomes: Policy changes? Injury reductions? Measurable impact?
1(g). How was this program funded?
1(e). Is this program and its funding well coordinated between agencies?
1(f). Is this program sustainable
1(g). What are the facilitators for this program?
1(h). What are the barriers?
1(i). Is this program, where relevant, on track to meet policy targets?

1(j). Has there been or will there be a formal evaluation of this program?

Program II

2(a). Program/intervention title

2(b). Was the program based on evidence? Please specify.

2©. Were baseline data and other baseline information available? Please specify.

2(d). What was the reach of this program?

2(e). How effective was this program?

2(f). What were the outcomes: Policy changes? Injury reductions? Measurable impact?

2(g). How was this program funded?

2(e). Is this program and its funding well coordinated between agencies?

2(f). Is this program sustainable

2(g). What are the facilitators for this program?

2(h). What are the barriers?

2(i). Is this program, where relevant, on track to meet policy targets?

2(j). Has there been or will there be a formal evaluation of this program?

Program III (follow the same above structure)

Focus group questions for district and communal steering committees on Injury Prevention (Form 5).

Explanation:

Our task, funded by UNICEF, is to evaluate the implementation of national policy in injury prevention in the period 2006-2009. National strategies and targets have been set by government policy. We are investigating whether injury prevention measures are being implemented at the Provincial/District level and your experiences and which factors facilitate and obstruct progress on injury prevention.

Information provided in this focus group is confidential and will not be attributed to specific persons.

Focus group leaders:

Professor Joan Ozanne-Smith MBBS, MPH, MD, FAFPHM, Monash University Australia
Assoc Prof: Nguyen Thi Hong Tu, MD, MPH, PhD, Vietnam

Demographics: focus group participants

Consent to participate	
Focus group date	
Focus group time	
Location of focus group meeting	
Participant agency	
Participant role in agency	
Participant years in role	
Participant gender	
Participant age group	
Injury prevention responsibilities	
1.	
2.	
3.	

Focus group questions

1. Is injury a priority issue for your Province/District?

2. What are the major causes of injury deaths and non-fatal injuries in your Province/District?

3. What programs are in place? For how long? How far do these programs/interventions reach into the Province/District? Are these programs based on evidence? Have they been successful in reducing injuries? Have they achieved change in policy, or measurable impact?

4. Are injury fatality data and hospital treated injury data available to inform injury prevention and to evaluate interventions? Are other sources of data available?

5. Have there been any formal evaluations of interventions?

6. To what extent has capacity been built in injury prevention in your Province/District? Training? Experience? Skills development?

7. What resources are devoted to injury prevention by your Province/District?

8. How are strategies and interventions coordinated between agencies?

9. Are the current programs sustainable?

10. What are the facilitators for injury prevention in your Province/District?

11. What are the barriers?

12. Are there plans for further injury prevention developments in your Province/District?

Appendix 4: Data surveillance reports from Ministry of Health during 2006-2009 and earlier data for identification of trends over time: Summary sheet (Form 2b)

Severity	Data source	Data collection method	Periods covered	Data content
Deaths	Department of preventive medicine & Environment, Ministry of health.	Directly collect from every commune. Community based (A6 form)	1 time a year	Name, Age, sex, causes of death
Hospital admissions	Department of preventive medicine & Environment, Ministry of health.	Data send by provincial health service	Quarterly, annual.	Total injury cases, death cases, age, sex, occupations, injury causes, injury part of body,
Hospital emergency dept.	Department of preventive medicine & Environment, Ministry of health	Data form come from 100 provincial and central hospitals	Weekly, monthly	Total Emergency cases, injury cases and road traffic injury, age, sex, head injury, helmet information, alcohol, severity of injury, transference and deaths.
Other medically treated	Statistic office, department of planning & financing, MoH	Data send by provincial health service (	6 month and annual.	morbidity and mortality by causes of all kind of diseases by ICD 10. age, sex.
Occupational injury	Department of preventive medicine & Environment, Ministry of health	6 month report form, annual report	6 month and annual.	Occupational injury, causes, days leaves, severity, compensation.
Acute Pesticide poisoning	Department of preventive medicine & Environment, Ministry of Health	6 month report form, annual report (acute poisoning cases)	6 month and annual.	Poisoning cases, deaths, causes of poisoning and deaths
National Survey	Hanoi School of Public Health	27,000 household by 8 region	8-10/2001	Injury Morbidity, mortality by causes, injury situation, outcome of injury.
Provincial household survey	Department of Preventive Medicine & Environment, Ministry of Health	WHO method	In 6 provinces Haiduong, Hungyen, Longan, Hue, Yen Bai,	Injury Morbidity, mortality by causes, injury situation, outcome of injury in the provinces.
Research	Department of preventive	Scientific paper of	2002	High risk of injury, cause of injury; safety

	medicine & Environment, Ministry of health	workshops, conferences.	2006 2008	device; EMS, cost expenditure of injury; evaluation of helmet, alcohol situation, head injury by age group, safe community.

Appendix 5: Summarized injury prevention project results

Ref	Project tittle	Outcome
1.	Project "Accident and injury prevention, safety community building" in 7 provinces Hanoi, Hung Yen, Ninh Binh, Lam Dong, Thua Thien Hue, Long An during period 2002-2006 by Preventive Medicine Department and Co-operative Program between Vietnam and sida swidish amb.	Assist the Ministry of Health to complete accident and injury prevention goal when implementing the national policies. Organize two national scientific conferences and one international conference regarding accident prevention with a total of 1038 local delegates and 96 international scientists from 12 organizations. Publicize and deploy Accident and Injury Prevention Website in both Vietnamese and English, link with the Ministry of Health at the address www.moh.gov.vn/Tainanthuongtich. Accident and injury report system has been strengthened. Household accident and injury research tool was built based on WHO's instruction and co-operation between local and international experts. Set up of 5 Vietnam safety community standards. 14 communes were achieved and 4 communes received Vietnam safety community certificate. Hanoi, Hung Yen, and Thua Thien Hue achieved the Safety community standard by WHO, and were officially recognized as members of International Safety Community Network.
2.	Project "Accident and injury Prevention for children", sponsored by UNICEF, and co-operate with Preventive Medicine Department, carried out in 6 provinces Hai Phong, Hai Duong, Thua Thien Hue, Quang Tri, Dong Thap, Can Gio from 2003 to 2005.	Heighten the awareness of accident and injury prevention through television and other public arenas, and change the attitude of children, parents and carers, as well as leaders of the safety community. Project activities focus on improving awareness of accident and injury prevention for children (including traffic accidents), organization of competitions and organization of conferences regarding the safety community model. Model demonstration of injury prevention with effective intervention will be piloted in special projects where there are coordinated activities to prove the effect and feasibility of the project. Implement research activities, and develop and apply safety equipment for children which are made using local materials. Encourage public acceptance of these child safety measures.
3.	Project "Model Demonstration and Capacity Building, the grown-up of the sub-project 2 of the CIP project in the previous cycle, will continue support the 6 piloting provinces to develop further initiated CIP models in their 68 communes. 2006-2010. Implementing agencies:	Improve technical knowledge and skills for injury prevention and project management. Child safe home, child safe school and child safe community models are in place. Improved community-based death certificate and injury morbidity reporting. Improved hospital based injury reporting. Conduct surveys, and injury prevention research. Development of cost effective child-safety devices to be

	Preventive Medicine Department, People Committee of Hai Phong, Hai Duong, Thua Thien Hue, Quang Tri, Dong Thap and Can Tho	promoted through new safety legislation.
4.	Project "Strengthening community referral emergency response to road traffic injuries in the city of Hanoi, Vietnam " 2005-2007 by WHO and Department of preventive medicine, MOH, Tuliem District, Hanoi city.	Raise awareness in the community of RTI prevention following World Health Day 2004 in Hanoi and project site. Set up information system for RTI emergency in Hanoi city. Pilot a model of victim referral to health facilities following a road traffic accident in Tuliem district of Hanoi city.
5.	Project "Improving Accident and Injury Prevention Capacity, monitoring injury at hospitals of 3 provinces 2004-2005 by the co-operation between WHO and Preventive Medicine Department.	Conjunct accident and injury prevention projects with the WHO from 2003 to present. The project activities have mainly focused on: (1) Improving the capacity of accident and injury prevention policy establishment. (2) Improving the capacity of monitoring and analyzing accident and injury data, including the installation of accident data systems in hospitals. (3) Continue to maintain website and accident prevention flyers. (4) Establish assistance for pre-hospital trauma care and emergency equipment for Communes' Healthcare centers.
6.	Project "Strengthening the capacity of community information coordination for referral of emergency and trauma care" 2006-2008 funđe by AP. Implementing agency: DPME, MOH, Hanoi and Hue city, 4 central Hospitals, 11 provincial Hospitals Hà nội, Huế city.	Developed and piloted an Emergency Injury Information and Triage Service (EIITS) system in Hanoi and Hue city. Strengthened planning and co-ordinating capacity of the staff of the Vietnam Administration of Preventive Medicine.
7.	Co-operative program between Vietnam and Holland for community rehabilitation in 10 provinces in 2004-2006.	Rehabilitation of disabled children in the community, including children disabled by accidents. Training assistance for commune Healthcare center network to assist children and people in the community. Provide equipment to support disabled children.
8.	Project on road traffic safety, funded by World Bank	This project was implemented on 3 roadways, including: Hanoi - Vinh, Ho Chi Minh City - Can Tho and Ho Chi Minh city - Vung Tau. The project has three components: Institutional and Capacity Building Program, Road Safety Demonstration and Awareness Program, and Road Safety Monitoring and Evaluation Program.
9.	Project "Piloting the road traffic safety initiative in Vietnam 5/2008 to 31/12/2009 by MOH	A guideline for the limitation of blood alcohol concentration for road users and hospitalized patients was developed and promulgated by MOH.

	and WHO in 3 provinces Yen Bai, Da Nang and Binh Duong 7 selected hospitals: Viet-Duc, Saint Paul, Trauma and Orthopedics Hospital of Ho Chi Minh city, General hospital of Yen Bai, Da Nang, Binh Duong and Central General hospital of Hue.	Training programmes were developed for patients, patient's family, and community on the fatal injury risks related to lack of helmets and drink-driving. Measures undertaken of multi-sectorial cooperation aimed at promoting legislation. The project provinces and selected hospitals were provided communicative and training materials, equipment such as breathalysers, and other funded facilities to support monitoring blood alcohol concentration. Road safety initiatives from agencies and organizations were granted for implementation. Owners of restaurants and bars pledged to participate in communication campaigns for helmet use and alcohol control. Good road safety campaigns and programmes were recognised. Project provinces making good progress on issues of helmet use and drink driving will receive recognition and incentives from the project. Project achievements and lessons learnt were shared in national and international conferences and workshops (national and international participants from developing countries attended the 2 Asia Pacific conferences on AIP in Hanoi 2008).
10.	Project " Emergeny in Hanoi 2001-2002" by Counterpart and Hanoi Health Department	Train 5 lecturers from the Health Community in the USA and broaden to 150 Hanoi Health officers and 60 surgeons (through Surgery Association). Establish Hanoi Health Emergency Training center (at Hanoi Health Highschool); establish the first Hanoi emergency satellite center; provide emergency cars; communication equipment for emergency center 115; provide equipment for major Hanoi hospitals. Pilot data report program pre-hospital (include of diseases history and databases). Strengthen community awareness.
11.	Program "Vietnam Emergency service 2003-2004 in Hanoi, Thua Thien Hue, Da Nang, Khanh Hoa performed by Counterpart and Health Departments	Train 9 lecturers in Heath emergency in the USA and broaden to 240 health officers (doctors, nurses), at 4 provinces in the program. Establish and equip Emergency Training center in Danang, Khanh Hoa and supplement for Hanoi Emergency training center. Support transportation for Danang, Khanh Hoa. Apply data report program pre-hospital (include diseases history and databases). Arrange international trips to research the USA Health emergency policy.
12.	Project " Emergency service Open Hanoi-Haiphong performed by Counterpart and Health Department 2002-2003	Increase the capability of emergencies in Highway 5 and HaiPhong. Train 3 lecturers in Heath emergency in the USA and broaden to 150 health officers (doctors, nurses) in

		HaiPhong. Establish and equip Hai Phong Emergency Training center, support the establishment of 2 emergency transport posts in Highway 5 and increase transportation and equipment for the emergency transport service. Provide equipment for Hai Phong major trauma hospitals. Apply data report program (include of diseases history and databases) Increase people awareness (through Health emergency conferences, flyers, network meetings)
13.	Project "Pilot safety public motorbike, road, and life 2004-2005 performed by the co-operation between Counterpart, Hanoi Red Cross, Asean Dealth prevention fund	Increase safety practices in community through piloting projects with public motor bikers group, schools and households. Increase safety driving programs and training of first-aid for drivers, and introduce safety equipment (helmets, reflected light uniform, first-aid box). Increase the reputation and prestige of safety public drivers and expand the application of this model (through advertising). Build up first-aid volunteers (teachers, staff, police, and community health officers). Increase the awareness and safe practices in school and household.
14.	Program "Vietnam injury controlling 2004-2007 performed by the co-operation between the Ministry of Health, WHO. Implementing cities: Hanoi, Hai Phong, Thua Thien Hue, Da Nang, Khanh Hoa, Hung Yen	Build up trauma emergency training programs and support the existing emergency training center and those developed in the future. Train lecturers and broaden the use of training program above; campaign to involve the above contents in the medicine training program. Publicize and pilot "Pre-hospital care instruction and trauma care of the WHO in Vietnam". Build up injury prevention/first-aid training programs for collaborators in the community. Continue to support Emergency service (emergency Department, communication equipment for emergency 115 system, injury monitoring system). Increase the awareness of accident and injury prevention in the community (documents). Increase information exchange, co-operate in accident and injury prevention through conferences, meetings, and teamwork.
15.	Training first-aid for disposal of bombs team in 2004 by Counterpart co-operate with 3 provinces Quang Binh, Ha Tinh, Quang Tri.	Design courses according to needs, and provide trauma care training for health officers of the disposal of bombs team (of BOMICO) in the above provinces.

Appendix 6: Study participants

LIST OF INTERVIEWEES

Ref	Participant name	Office	Ministry/Sectors
1.	Vu Nhu Van	Deputy Director of occupational Safety & health Department	MOLISA
2.	Do Thi Thuy Nguyet	Deputy Head of office,	MOLISA
3.	Dong Di Thanh Huong	Deputy head of Policy Office,	MOLISA
4.	Nguyen Trong An	Deputy Director of Chidren protection Department,	MOLISA
5.	Vu Kim Hoa	Head of Child protection & Care Office	MOLISA
6.	Chau Minh Anh	Specialist,	MOLISA
7.	Dang Quoc Viet	Director of Center for Health Communication and Education	Ministry of Health
8.	Tran Quang Mai	Deputy Director of Center	Ministry of Health
9.	Do Vo Tien Dung	Dead of center office	Ministry of Health
10.	Hoang Thi My Hanh	Specialist, Health Policy & Strategy Institute	Ministry of Health
11.	Vu Thi Minh Hanh	Deputy Director of Health Policy & Strategy Institute	Ministry of Health
12.	Hoa Huu Van	Deputy Director of Department of Family	Ministry of Culture, Sports & Tourism
13.	Le Do Anh	Specialist, Department of Family	Ministry of Culture, Sports & Tourism
14.	Nguyen Thi Ha	Secretary of Youth Union	Youth Union
15.	Hoang Tu Anh	Deputy Chairman of Youth Union	Youth Union
16.	Tran Van Tuan	Specialist	Youth Union
17.	La Quy Don	Department of Student -	Youth Union
18.	Lai Thi Hoa	Specialist	Youth Union
19.	Nguyen Thi Son	Specialist	Ministry of Education & Training
20.	Cao Anh Dung	Department of Technical – Safety & Labour Environment -	Ministry of Industry & Trade
21.	To Xuan Bao	Deputy manager of Office	Ministry of Industry & Trade
22.	Pham Viet Cuong	Co-ordinator of Center for Injury Prevention	Hanoi School of Public Health , MOH
23.	Tran Thi Ngoc Lan	Deputy Director of Department Department of Preventive Medicine & Envirnment -	Ministry of Health
24.	Nguyen Thi Lien Huong	Manager of Injury Prevention & Environment	MOH
25.	Luong Mai Anh	Manager of Planing and Finance office	MOH
26.	Tran Anh Thanh	Specialist	MOH
27.	Nguyen Truong Giang	Specialist	MOH
28.	To Phuong Thao	Officer	MOH
29.	Le Anh Tho	Director of Department	General Department of Sport

30.	Nguyen Thi Chi	Deputy Director of Department of Public Sport	General Department of Sport
31.	Tran Van Chien	Officer, Department of Public Sport	General Department of Sport
32.	Le Minh Chau	Deputy-Director Department of traffic safety	Ministry of transport & Communication
33.	Nguyen Van Thau	Officer Department of traffic safety	Ministry of transport & Communication
34.	Nguyen Van Tham	Director Department of traffic safety	Ministry of transport & Communication
35.	Marjatta Tolvanen Ojutkangas	Chief, child survival & Development	UNICEF
36.	Vu Chinh Thien	Health policy specialist	UNICEF
37.	Nguyen Thi Y Duyen	Program officer	UNICEF

NAM DINH PROVINCE

LIST OF PARTICIPANTS IN NGHIA SON COMMUNE - NGHIA HUNG DISTRIC – NAM DINH PROVINCE		
Ref	**Participant name**	**Tittle**
1	Le Ngoc Khanh	Deputy People's committee chairman of Nghia Son commune
2	Vu Cong Minh	Chief of police – Nghia Son commune
3	Pham Van Tho	Chief of Farmer association – Nghia Son commune
4	Pham Van Quang	Chief of Veterans' organization
5	Do Van Vy	Secretary of Youth Union – Nghia Son commune
6	Trinh Thi Ly	Chief of Women Association
7	Vu Van Trung	Principal of Nghia Son Primary school
8	Ngo Tram Anh	Vice Principal of Nghia Son Primary school
9	Nguyen Van Ky	To be in charge of injury prevention programme – Nghia Son commune
10	Nguyen Quang Thieu	Manager of medicine center
11	Nguyen Van Thien	People's committee chairman of Nghia Son commune
12	Bui Thi Thu	Chief of Labour Union – Nghia Hung distric
13	Vu Thi Hong Bac	Deputy People's committee chairman of Nghia Hung district
14	Ta Thi Tuyet	Chief of Women association - Nghia Hung district
15	Tran Van Hoa	Secretary of Youth Union
16	Tran Van Binh	Deputy manager of Labor, War Invalids, & Social Welfare Department
17	Do Duc Hanh	Deputy of People's committee chairman of Nghia Hung distric
18	Ngo Van Chuyen	Deputy manager of Preventative medicine center – Nghia Hung district
19	Tran Van Hung	Manager of Preventative medicine center – Nghia Hung district
20	Tran Van Khuong	Specialist of Education department - Nghia Hung district
21	Tran Van Cong	Deputy of People's committee chairman of Nghia Hung district
22	Phan Van Thang	Deputy manager of Preventative medicine center – Nam Dinh province
23	Tran Thi Thien	Officer of Preventative medicine center – Nam Dinh province
24	Dang Thi Minh	Manager of Health department - Nam Dinh province

25	Do Duc Nguyen	Manager of child care and protection office - Department of Labor, War Invalids, & Social Welfare – Nam Dinh province
26	Tran Thi Thu	Manager of sport office - Nam Dinh province
27	Le Ngoc Nham	Deputy chief of the secretariat – Education department – Nam Dinh province
28	Nguyen Bich Ngoc	Specialist of People's committee - Nam Dinh province
29	Tran Binh Duong	Deputy chief of school injury prevention committe
30	Pham Van Dat	Specialist of safe traffic committee

HAI DUONG PROVINCE

LIST OF PARTICIPANTS IN DUC CHINH COMMUNE - CAM GIANG DISTRIC – HAI DUONG PROVINCE		
Ref	**Participant name**	**Tittle**
1.	Nguyen Van Thoi	People's committee chairman of Duc Chinh commune
2.	Tran Van Tai	Deputy of People's committee chairman of Duc Chinh commune
3.	Tran Nguyen Thong	Physician - Medical center
4.	Nguyen Thi Thu	Midwife - Medical center
5.	Nguyen Thi Lap	Nurse - Medical center
6.	Hoang Thi Nga	Deputy chief of population committee in Duc Chinh commune
7.	Hoang Van Chu	Officer in Duc Chinh People's committee
8.	Le Huy Luong	Principal of Duc Chinh Primary school
9.	Nguyen Thi Vang	Chief of Women association
10.	Tran Van Trang	Secretary of Youth Union – Duc Chinh commune
11.	Le Van Tuyen	Teacher in Duc Chinh secondary school
12.	Tran Le Duyen	Doctor - Medical center
13.	Pham Thi Vinh	Collaborator – Duc Chinh commune
14.	Luong Van Toan	Deputy manager of medicine office in Cam Giang district
15.	Chu Duc Thu	Manager of distric radio station
16.	Luu Xuan Truong	Manager of distric Population center
17.	Pham Thi Huong	People's committee chairman of Cam Giang distric
18.	Pham Thi Thanh	Secretary of injury prevention project – Cam Giang distric
19.	Vu Van Hiep	Deputy chief of the secretariat – Cam Giang distric
20.	Nguyen Thi Tuoi	Specialist of Health office – Cam Giang district
21.	Pham Van Hung	Manager of Plan and Finance – Health Department –Hai Duong province
22.	Nguyen Thanh Mai	Deputy People's committee chairman of Hai Duong province
23.	Le Thi Hoan	Deputy chief of family officer

24.	Nguyen Huu Thien	Deputy manager of general co-ordination office
25.	Pham Van Tam	Deputy maneger of Nam Dinh province's health department
26.	Truong Tuyet Hoa	Specialist of Hai Duong province's health
27.	Pham Vinh Long	Deputy maneger of Labor, War Invalids, & Social Welfare SErvice
28.	Nguyen Tien Thang	Deputy maneger of Safety Traffic Department

Appendix 8: Workshop agenda

"Review of the implementation of the national policy on prevention of injury 2006 – 2009"
Date: September 30th . 2009
Time: 8h30 – 12h00
Place: Youth guest – house. 15 Ho Xuan Huong. Hoan Kiem. Hanoi
Organizing unit: Department of Preventive Medicine and Environment and UNICEF

8.30-8.45	Registration of the participants	
8.45-9.00	Introduction of the workshop	Mrs Nguyen Y Duyen. Unicef
9.00-9.30	Presented the report: overview. methods and major achievements and impact	Prof Joan Smith
9.30-10.15	Plenary Discussion	Prof Joan Smith. Dr Nguyen Thi Hong Tu. Mrs Nguyen Y Duyen
10.15-10.30	Break	
10.30-11.00	Presented the report. Continues	Prof Joan Smith. Dr Nguyen Thi Hong Tu. Mrs Nguyen Y Duyen
11.00-11.45	Plenary Discussion	
11.15-12.00	Conclusion	Mrs Nguyen Y Duyen. Unicef

Appendix 9: Workshop participants

"Review of the implementation of the national policy on prevention of injury 2006 – 2009"

Ref.	Name	Office
1.	Khuong Kim Tao	Deputy-Head of Standing office of NTSC. Ministry of transport & Communication
2.	Nguyen Thi Thu Huong	Department of Safe Labour - Ministry of Labor. Invalids. & Social Welfare
3.	Dang Tran Hieu	Department of Safe Labour - Ministry of Labor. Invalids. & Social Welfare
4.	Nguyen Thi Hong Thanh	Scientific Center for community health and injury prevention (CCHIP)
5.	Do Thi Diep	Depart. of preventive medicine & Environment - MOH
6.	Le Minh Chau	Deputy- Director, Department of safe traffic – Ministry of transport & Communication
7.	Nguyen Van Thau	Department of safe traffic – Ministry of transport & Communication
8.	Nguyen Phuong Nam	WHO in Vietnam
9.	Lai Quang Trinh	Department of children protection and care
10.	Pham Van Hung	Hai Duong Health Service
11.	Pham Van Tien	Deputy-Director. Hai Duong Health Service
12.	Do Thuy Lan	Counterpart International
13.	Tran Thanh Tuan	Youth Union
14.	Duong Thi Thu Thuy	CCHIP
15.	Kieu Thi Mai Huong	Hanoi Health Service
16.	Le Anh Tuan	Hanoi Health Service
17.	Katarine Laycastte	CSIP
18.	Aaron Pervin	CSIP
19.	Nguyen Thi Y Duyen	UNICEF
20.	Vu Thi An	UNICEF
21.	Marjatta Tolvanen Ojutkangas	UNICEF
22.	Dinh Kim Phuong	AIPF
23.	Linking Path	AIPF
24.	Vu Ngoc Hoa	Counterpart

25.	John Pasmove	WHO in Vietnam
26.	Pham Viet Cuong	Hanoi school of public health
27.	Le Ngoc Quynh	Department of preventive medicine & E - MOH
28.	Tran Thi Trinh	Department of preventive medicine & E - MOH
29.	Phuong Thao	Department of preventive medicine & E - MOH
30	Nguyen Thi Hong Tu	National Consultant