RCVIS
ROAD CRASH & VICTIM INFORMATION SYSTEM

Road Crash
and
Victim Information System
In Cambodia

Guidelines

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Developed by:

HANDICAP INTERNATIONAL

Handicap International Belgium

Poster Presentations

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Acronyms

- GSNRSC : General Secretariat of National Road Safety Committee

- MoH : Ministry of Health

- MoI : Ministry of Interior

- NRSC : National Road Safety Committee

- WHO: World Health Organization

- GRSP: Global Road Safety Partnership

- HIB : Handicap International Belgium

- TICO: Tokushima International Cooperation

- JICA: Japan International Cooperation Agency

- RCVIS : Road Crash and Victim Information System

- SOP : Standard Operation Procedure

- GPS : Global Positioning System

I. Introduction

Since 1995, road crash data was collected by three different ministries (Public Work and Transport, Interior, and Health). Although the databases developed by these ministries provided relevant indications on the road safety situation of the country, a need for improvement was observed, as the crash databases in those ministries were under reported, limited in their scope, discrepant and were not compatible.

The data collected by the Ministries clearly demonstrated the growing seriousness of road crashes in the country. To fight this problem, the Government of Cambodia, with the support of the Asian Development Bank, adopted a National Road Safety Action Plan 2006-2010 to prevent road crashes and reduce injuries and deaths. The action plan consists of 15 actions, covering all aspects of road safety. Action 2 of this plan highlighted the need to setup a national database on road traffic crashes and casualties.

For these above reasons, in early 2004, Handicap International Belgium (HIB), with support from the French Cooperation, Belgian Cooperation and WHO, proposed to the three ministries above to assist them to develop a new system, based on a standardized and more detailed data collection form.

The new system has been progressively developed since the 1st of March 2004, in accordance with the requirements of ASEAN and the United Nations, and aligned to Action 2 (Road crash Data Systems) of the National Road Safety Action Plan of the Royal Government of Cambodia. The system has been progressively extended to cover for all provinces in Cambodia and equipped with the global positioning system (GPS).

The objective of the Road Crash and Victim Information System (RCVIS) is to provide government and development stakeholders in Cambodia with accurate, continuous and comprehensive information on road crash and victims for the purposes of increased understanding of the current road safety situation, planning appropriate responses and policy, and evaluating impact of current and future initiatives.

II. Overview of the system

1. Road crash definition

The term: "road crash" means a collision involving at least one vehicle in motion on a public or private road on the Cambodian territory that results in at least one person being injured or killed (WHO 2004)

2. Classification of severity of injuries

The classification of severity of injury is defined as follows:

- Killed: People who die within 30 days after the crash from injuries.
- Serious injury: Requiring surgery or intensive care unit or requiring medical treatment or hospitalization
- Slight injury: people who suffer bruises, minor cuts.

3. Cause of road crashes and injuries

The factors contributing to road crashes are broken down into 4 categories:

- Human error: risky behaviors of road users, such as: speeding, drink driving, not respect the right of way, change lane without due care, dangerous overtaking,..
- road condition: potholes, dust, animal/object on roads
- Vehicle defect: break failure, tire blow out, steering wheel failure,...
- Weather condition: rain, cloudy/mist, ...

4. Data sources

Research shows that in most countries, official crash statistics based on traffic police reports only underestimate the real number of road crash casualties[1]. To avoid this underreporting, the Road Crash and Victim Information System (RCVIS) is based on the combined information collected from both the traffic police and hospitals to become a comprehensive and unique system in Cambodia. To ensure high quality data collection, Handicap International Belgium, in collaboration with Ministry of Interior and Ministry of Health, organized several trainings to traffic police representing of each district, and to technical staff in health centers and referral hospitals located along national road in 24 provinces on the use of data collection forms.

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[1] Recent research shows that statistics based on traffic police only report 60% of seriously injured road traffic casualties in developed countries.

The following figure shows the data transferring from district level to the ministry level. Both ministries are responsible to collect data from their provincial officers, while HIB is responsible to centralize the data from both ministries and private clinics and publish the reports.

Figure 1: Data collection flow
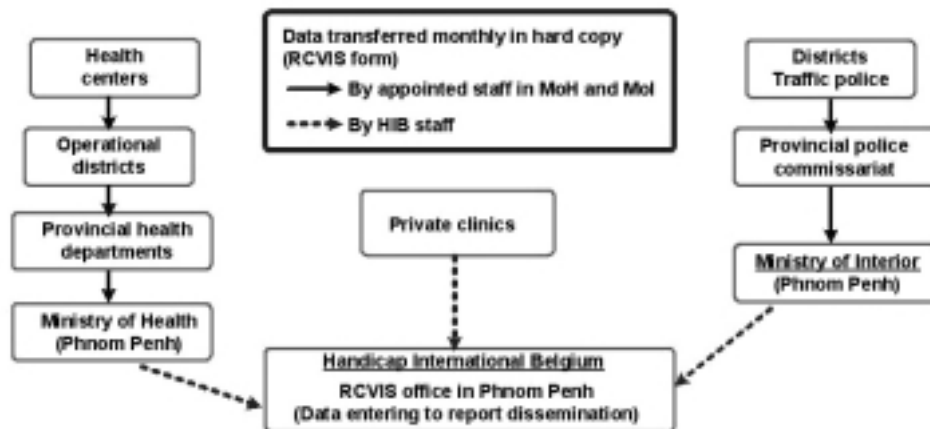
5. System life cycle

The information cycle of the Road Crash and Victim Information System can be described as:

1. **Data collection**: There are two different RCVIS forms. The first is used by traffic police and it concentrates on the type and causes of accidents, while the second one is filled by hospital and health center staff and focuses on the type and severity of injury. In general, traffic police officers are not presents at all crash scenes and do not report all crashes they witness. Hospital data is therefore needed to complement traffic police data. Then, the forms are sent to the relevant national levels (ministry offices) at the end of each month.

2. **Data verification and follow up**: Every month, the forms are collected by a HIB staff from the national levels (MoH and MoI in Phnom Penh) and private clinics. Then, data verification is made to ensure the completion of the form and accuracy of information. Additional contact may be made directly to provincial staff responsible for filling the forms to get more detailed information.

3. **Data entry and storage**: after the verification, the forms are entered into the database through 2 applications:
   I. Database for forms from police;
   II. Database for forms from hospitals.

   During data entering, the applications are designed to prevent confusion/mistake by the database encoder. (eg: victim is a motorbike rider, so seatbelt is not applicable)

4. **Data check and analysis**: Data check is made to find out duplicated data entry between information from traffic police and hospital staffs to avoid double entries between health facilities and traffic police data. If a casualty is reported by a health facility as well as by the traffic police, it will be taken into account only once as hospital data. To check double entries, the common core variables such as name of victims, accident date, time, type of road user, type of transport, location of crash, severity of injury, hospital discharge are used to determine duplicated data entry.

   The checking process is complicated and is therefore required to be conducted manually. After the checking process, all data is centralized into one common application, called RCVIS database, which will be used to analyze and produce reports. Further data analysis is also generated through SPSS and MS Excel.

5. **Monthly/annual report production**: the report is produced to compare the evolution or trend from month to month, or year to year. Unusual changes/number can be noticed, and reviewed again in the database. It also provides critical issues related to the current situation of the country, for example the report highlights the drink driving during the Khmer New Year, or number of victims wearing a helmet after a period of the helmet enforcement. If a cause of the change and recommendation are found out, it will be also included in the report.

6. **Monthly/annual report dissemination**: the reports are disseminated regularly in soft and hardcopy to a total of more than 400 end users, including the National Road Safety Committee (NRSC), MoI, MoH, MPWT, Ministry of Information, National Assembly, news media (TV, newspaper, radio), and local and international non-governmental organizations.

7. **End-user and feedback**: at the end of the annual reports, a feedback form is attached to receive comments or feedback from end users. Readers can fill in the form and send to HIB via e-mail or hard copy.

Figure 2: RCVIS system life cycle

6. System coverage:

By the end of 2006, RCVIS covered 24 Cambodian provinces with traffic police and health facilities data.

Figure 3: RCVIS geographical coverage by December 2006

7. *Current organization*

The MoI is the main actor in charge of the data collection by traffic police officers. Their Order Department takes ownership of the system and provides trainings to traffic police officers, in collaboration with HIB, to ensure the completion of the crash data collection form and use Global Position System to identify the blackspot. The department then collects data from provincial traffic police offices and centralizes them in Phnom Penh. There are around 500 traffic police officers regularly filling the form throughout the country.

Figure 4: RCVIS organization chart under the Ministry of Interior

The MoH is in charge of the data collection within hospitals. It provides trainings to hospital staffs, in collaboration with HIB, collects the data at provincial levels and centralizes them in Phnom Penh. The hospital forms have been filled by around 800 staffs in hospitals and health centers.

Figure 5: RCVIS organization chart under Ministry of Interior

Currently, HIB's staff collects the RCVIS forms from the MoI for traffic police data and from the MoH for hospital data at the central level. HIB also collects forms directly from private clinics. HIB manages the RCVIS database to ensure data entry, data analysis and dissemination of reports. The RCVIS project manager is responsible for the whole process of the system, under the direct supervision of the Road Safety program manager. The project also gets the support and advice from the coordinator of operations and the country director.

Figure 6 : RCVIS organization chart under Handicap International Belgium
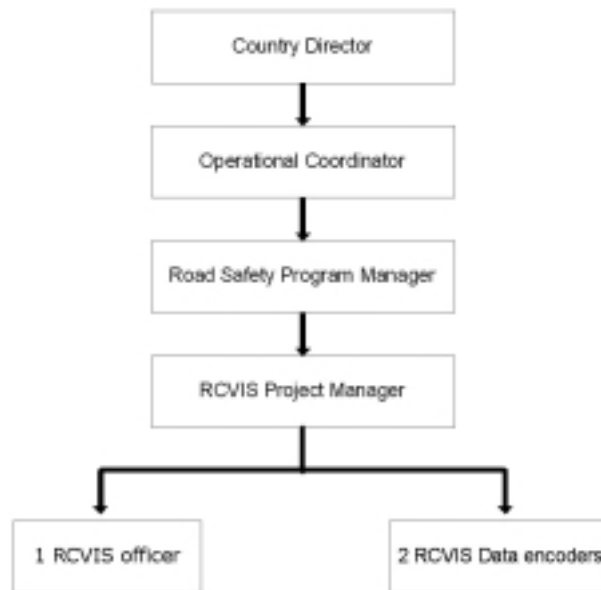
III. Usefulness of the RCVIS

1. Increase of political will: Through data dissemination via media, government officials have contacted HIB for more detailed data in order to develop policies, strategies and action plan to reduce road crashes (eg. the Cambodian Prime Minister referred to RCVIS data to call for more commitment and action on road safety).

2. Improvement of blackspots: The Ministry of Public Work and Transport, in collaboration with JICA, are now using the black spot data to plan appropriate remedial actions at these dangerous locations along the national road network. TICO, an emergency response organization, uses the data to locate their ambulances close to spots with frequent crashes.

3. Reference to develop plans and proposals: Data is the reference for all road safety stakeholders (NRSC, MOH, WHO, GRSP) to develop strategies, proposals, documents in the Cambodian road safety sector.

4. Evaluation tools for RS action: RCVIS data has been used as an evaluation tool to measure the effectiveness and impact of project implementation, such as helmet promotion and community-based education projects;

5. Extension to another system: Based on the experiences in RCVIS, the Ministry of Health has decided to extend the system into a broader Injury Surveillance System (ISS), which will include data on injuries due to road traffic, but also to various other causes, such as falls, domestic violence, and drowning.

IV. Current Situation

Handicap International Belgium plans to take actions in order to ensure the sustainability of the RCVIS and to further extend the system to cover the injury surveillance in the country, in collaboration with related ministries. In 2010, the RCVIS will be fully managed by the general secretariat of the NRSC and the injury surveillance system will be under the responsibility of the MoH. To achieve this, the following activities have been performed:

1. Training traffic police officers on data collection and the use of GPS

Although trainings have already been organized in the whole country and the quality of the system is already excellent, additional training sessions will be necessary to provide feedback on the way traffic police staff fill in the forms and the quality of using GPS devices. Some questions in the data collection forms continue to be poorly understood and some crash location are not properly identified. Therefore, further explanation is required. Those training will be conducted by the MoI, with the technical and financial support of HIB.

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2. Train key staffs within the GSNRSC and Ministry of Interior

RCVIS database is currently managed by HIB. To ensure its sustainability, training on database management (data entry and verification, form filing system, quality control and assurance, system maintenance and back-up, identify black spot on map and data analyzing), as well as production and dissemination of monthly and annual reports, have been provided to the appropriate staff designated by the MoI and General Secretariat of National Road Safety Committee to ensure full capacity of managing the data system in 2010.

3. Extension to the injury surveillance system

Injuries clearly emerge as a major public health problem around the world, especially in developing countries. In Cambodia, injuries in general are indeed estimated to be a growing cause of death and disability. An effective monitoring system will help Cambodia to take relevant and timely action. However, there is currently no ongoing data collection system to monitor injuries. So far, the national public system for injury surveillance is not ready. There is indeed a growing interest from several actors in Cambodia (Ministry of Heath, UNICEF, WHO...) to get more data on injuries in general, and not only on road traffic injuries.

Currently, HIB, GTZ and WHO have collaborated with the Ministry of Health to extend the RCVIS into a broader Injury Surveillance System, which will continue to include data on injuries due to road traffic, but also various other causes, such as falls, domestic violence, and drowning. The following activities have been performed:

1.1 Development of an officially approved injury collection form
Based on the experience of RCVIS and the useful references from WHO, it would be easy and non-costly to adapt the hospital data collection form currently used for RCVIS into a broader data collection form on injury in general. Not only Road crashes would then be reported by hospitals and private clinics, but also injuries such as drowning, falls, domestic violence. To date, the form has been officially approved and focal staffs in 24 provinces have been appointed by the minister of Ministry of Health.

1.2 Training of hospital/health center staffs

Basic trainings to focal staff were conducted on the new injury forms by the Ministry of Health, with the technical and financial support of WHO. After the trainings, focal staffs are expected to train hospital and health center staff. Monitoring and follow up will be conducted by MoH, WHO and HIB staff to ensure the implementation of the system at local level, as well as national level.

4. Development of three main databases

During the transfer process of database management to the related ministries, three main databases are being developing by Global Injury Database Study Group (GIDSG), based in Japan, in collaboration with Handicap International to support MoI, Ministry of Health and National Road Safety Committee (NRSC). With this new database, HIB expects that the related ministries will have a better standard system to manage the road crash data in their ministries with trained staff by Handicap International Belgium.

V. Next steps

HIB will continue supporting the implementation of the RCVIS in 2009 while ensuring a transfer of the system management to the MoI, MoH and General Secretariat of the National Road Safety Committee (GSNRSC). In 2010, HIB expects that the MoI will fully manage the collection and processing of data from traffic police, while NRSC will manage the RCVIS (with the technical support of HIB expected for two additional years). The MoH will also fully manage a new injury surveillance system (ISS), which will collect data not only on road traffic injuries but also on other kinds of injuries such as falls, domestic accidents, violence and drowning. Appropriate trainings will be conducted to appointed staff in those three organizations throughout the coming year. In the future, the system will be transformed as shown in the following figure:

Figure 7: Future structure of the systems
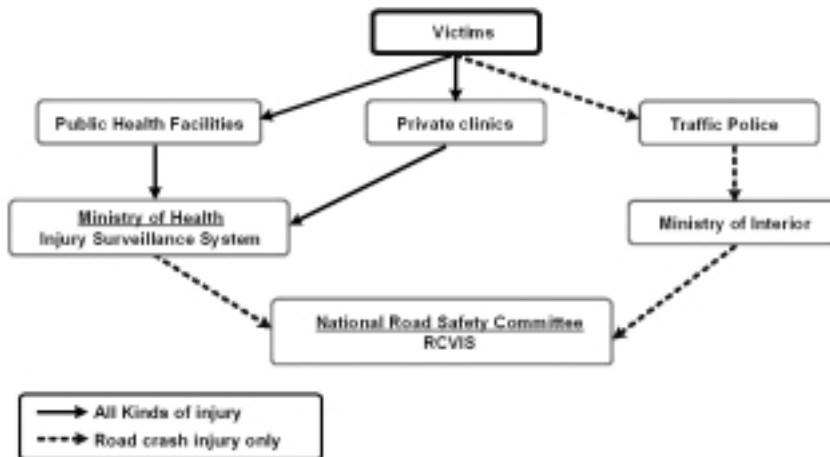
1. Extension to the injury surveillance system

1.1 Decentralize the system

In a long term view, the injury surveillance database system will be decentralized to the local levels. It will be installed in qualified hospitals/health centers, which can ensure more sustainability of the system. The injury forms will be filled by staffs and entered directly into the system at the local levels. Then, only softcopies will be sent to the national level to integrate along with other provincial data into the national reports. To effectively manage this process, strong commitment and qualification of the hospitals/health centers will be required

1.2 Training of MoH staff

Extensive trainings for MoH staff will be organized by HIB on the database management (data entry and verification, form filing system, quality control and assurance, system maintenance and back-up, and analyzing) as well as production and dissemination of monthly and annual reports. As a next step, those staff in MoH will transfer those skills to staffs in selected provinces as part of the decentralization of the system.

2. Structure of RCVIS Working Group

To ensure the sustainability of the system in the future, RCVIS working group will be created, joined by MoI, MoH and NRSC, to ensure the data collection and data abstracted from MoI and MoH to NRSC to produce road crash and victim report and dissemination. The following figure shows the future structure of RCVIS:

Figure 8: Future structure of RCVIS working group

3. Role and responsibility of RCVIS Working Group

3.1 Ministry of Interior (MoI):

MoI has so far collaborated in the design of the data collection form and in the identification and training of traffic police officers. In 2010, the MoI will be the main actor in charge of the data collection within traffic police offices, and will continue to train traffic police officers on the accident data collection form and the use of GPS device; collect data at provincial traffic police offices and centralize them in Phnom Penh and provide those data to the National Road Safety Committee.

3.1.1 Responsibility of Deputy Director of Order Department:

- Be the main focal person for coordination of RCVIS.
- Work with RCVIS Manager in NRSC to refine data collection form.
- Recommend on action plan.
- Organizing trainings in provinces.
- Maintain the RCVIS system.
- Encourage provincial traffic police to send the data collection form to ministry on time.

3.1.2 Responsibilities of Data Encoders:

General Task

- Maintain the RCVIS database.
- Collect data from traffic police in all provinces.
- Enter data into database.
- Provide the report to high ranking officers in the department.
- Provide training on GPS and data collection form to traffic police in all provinces.
- Provided road traffic crash data to NRSC after entering.
- Checking the use of GPS device.

System development and management

- Design and regularly update data collection forms.
- Assist Director of Order Department in improving and developing the systems.

Data processing

- Coordinate the data entry process;
- Checking and correcting the data.
- Entering the data into the application.
- Provide feedbacks to traffic police about the quality of the forms.
- Follow up the use of GPS and report the quality to traffic police.
- Provide Road crash data to GSNRSC after entering to Database every month.
- Produce report base on traffic police data.
- Provide the report to high ranking officer in the department.

Training

- Provide training to traffic police staff on the RCVIS and GPS and other necessary trainings;
- Provide the training of the RCVIS database management to the team;
- Develop and update the RCVIS end-user guides.

Back up and maintenance

- Organize RCVIS archiving using a proper filing system;
- Manage backups and basic maintenance of the computer equipment and monitor the anti-virus protection systems in place.

Qualification

- Have degree with related field.
- Good computer skill (word, Excel, SPSS, Arc View...).
- Have experience with data analysis.
- Excellent organizational skill.
- Good teamwork skill.
- Demonstrated data entry competencies.
- Experience with the use of GPS and Arcview software

Ministry of Health (MoH):

The MoH has so far collaborated in the design of the data collection form and in the identification and training of hospital staffs. In 2010, the MoH will be the main actor in charge of data collection within hospitals. To do that, the MoH will continue to train hospital staffs on the injury surveillance data collection form; collect data at provincial hospitals and centralize them in Phnom Penh and provide data related to road crash only to the National Road Safety Committee. MoH will also provide the data on injury to HIB, if requested. In a long term view, MoH will also decentralize the system to local levels by setting up the system and providing training.

3.2.1 Responsibilities of Deputy of Preventive Medicine Department

- Be the main focal person for coordination of RCVIS.
- Work with RCVIS Manager in NRSC to refine data collection form.
- Recommend on action plan.
- Organizing the training in provinces.
- Maintain the RCVIS system.
- Encourage hospital staff in all provinces sending the data collection form to ministry on time.

3.2.2 Responsibilities of Project Manager

General tasks
- Be the main focal person for the development of RCVIS.
- Work with RCVIS Manager in NRSC to finalize the form.
- Prepare the monthly and annual reports of RCVIS.
- Prepare the activity reports.
- Maintain the RCVIS database.
- Ensure the data will be integrated into Health Information System
- Assist to organize and provide training to hospital staff.

System development and management
- Design and regularly update the RCVIS application using the most appropriate technology;
- Design and regularly update data collection forms of RCVIS.
- Improving and developing the system.

Data processing
- Coordinate the data entry process;
- Data check and double entries.
- Provide feedbacks to hospitals about the quality of the forms.
- Provide Road crash data to NRSC after data entry.

Training
- Organize and provide training to hospitals staff on RCVIS forms and other necessary trainings;
- Develop and update the RCVIS end-user guide.
- Update SOP (Standard Operation Procedure) of RCVIS.

Reports dissemination
- Develop and disseminate the RCVIS monthly and annual reports (both Khmer and English);
- Producing Ad-hoc reports;
- Create new analysis to make the report more attractive.
- Maintain and develop the end-users database;
- Dissemination of reports to the media.
- Dissemination of report to Information department, secretary, and other government.

Representation, coordination, meetings
- In the absence of Chief of Preventive Medicine Department, represent the RCVIS project.
- Present RCVIS Database in meetings with partners.

Qualification
- Bachelor or Master degree in IT or related fields
- Computer basic (word, excel, SPSS….etc).
- Good command of English (speaking, writing and listening)
- At least 2 years work experience in a similar role
- Team players with strong interpersonal & communication skill.
- Have strong commitment.

3.2.3 Responsibilities of Data Encoders

General tasks
- Checking and correcting the data.
- Collect data collection forms at hospitals.
- Entering the data into the database.
- Provide Road crash data to NRSC.
- Backup database.

Data collection
- Collect the data collection form from hospitals and contact to other hospital to send the form to Preventive Medicine Department.

Data processing
- Check the data and correct them if necessary;
- Contact hospitals staffs to get additional information if needed and provide them feedbacks on the forms;
- Suggest any changes to the forms if many mistakes are noticed for a particular question.
- Update data after double check.

Back up and maintenance
- Organize ISS forms archiving using a proper filing system;
- Manager backups and basic maintenance of the computer equipment and monitor the anti-virus protection systems in place.

Qualification
- Demonstrated data entry competencies.
- Excellent organizational skill.
- Good teamwork skill.
- Computer skill.
- Have strong commitment

3.3 National Road Safety Committee (NRSC):

The General Secretariat of the NRSC (GSNRSC) will be fully in charge of the management of RCVIS in 2010. To ensure this transition, the GSNRSC will designate at least 2 permanent staffs to manage the database and progressively take the full ownership of RCVIS. In the meantime, the GSNRSC will work closely with HIB in analyzing RCVIS data and in using them to plan appropriate actions, in the framework of the National Road Safety Action Plan.

3.3.1 Responsibility of Deputy of GSNRSC:
- Be the main focal person for the development of RCVIS.
- Implementation road safety plan
- Refine the data collection forms according to the needs of the involved partners.
- Recommend major changes in the project which may help to improve it.

3.3.2 Responsibilities of Project Manager

General Task
- Develop the RCVIS database using the most appropriate technical solutions.
- Maintain the RCVIS database.
- Liaison with MoI and MoH.
- Recommend road safety priorities in the report.
- Develop and disseminate the report.
- Update SOP (Standard Operation Procedure) of RCVIS.
- Link RCVIS into E-Government system (NIDA)
- Work closely with MoH, MoI in abstracting the Road crash data and combine data.

System development and management
- Design and regularly update the RCVIS application using the most appropriate technology;
- Design and regularly update data collection forms.
- Assist the GSNRSC in improving and developing the systems.

Reports production and dissemination
- Produce and disseminate the RCVIS monthly and annual reports (in Khmer and English) to stakeholders and media.
- Create new analysis to make report more attractive.
- Producing Ad-hoc reports;
- Maintain and develop the end-users database;

Representation, coordination, meetings
- Represent RCVIS to staff members of GSNRSC and stakeholders.

Qualification
- Bachelor or Master degree in IT or related fields
- Computer basic (word, excel, etc).
- Good command of English (speaking, writing and listening)
- At least 2 years work experience in a similar role
- Team players with strong interpersonal & communication skill.
- Have strong commitment.

3.3.3 Responsibilities of Project officer

General Tasks
- Participate in training to traffic police on RCVIS form and the use of GPS device.
- Assist project manager in checking double.
- Provide feedback to hospital staff and police officer on the quality of the form.
- Backup RCVIS database.
- Maintain the RCVIS database.

Data processing
- Combine data from MoI and MoH into database.
- Check double between hospital data and police data.
- Provide feedbacks to MoH, MoI about the quality of the data.

Training
- Participate in training to traffic police staff on the RCVIS forms and GPS and other necessary trainings;
- Organize the training of the RCVIS to the team and to the ministry staffs;
- Develop and update the RCVIS end-user guides.
- Develop and update RCVIS SOP.

Back up and maintenance
- Organize RCVIS forms archiving using a proper filing system;
- Manage backups and basic maintenance of the computer equipment and monitor the anti-virus protection systems in place.

Representation, coordination, meetings
- Present RCVIS to staff members of GSNRSC.

Qualification
- Have degree in IT or related fields
- Computer basic (word, excel, etc).
- Knowledge of Microsoft SQL Server, VB.Net programming language, Crystal report.
- Good command of English (speaking, writing and listening)
- At least 1 years work experience in a similar role
- Team players with strong inter-personality & communication skill.
- Have strong commitment.

3.4 Handicap International Belgium (HIB):

HIB will support the related ministries on the development of new database system in collaboration with the Global Injury Database Study Group (GIDSG), install and train on the use of the system, training to traffic police on data collection form and the use of GPS device, training on injury surveillance form to health staff and continue to provide the technical support and financial support to NRSC in the management of the database, production of monthly report, and annual report and support MoH on the implementation of the system at the national level, as well as the decentralization of the system to the local levels. HIB will also coordinate the integration of the injury surveillance system and RCVIS between the MoH, MoI and GSNRSC.

VI. Contact

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Annex

Annex 01: Hospital Road Crash Causality Form

Annex 02: Traffic Police Road Crash and Causality Form

Traffic Police Crash and Casualty Form

PART 3: DRIVER AND/OR CASUALTY INFORMATION

DRIVER/CASUALTY 1

1. Name: _____

2. Gender: ☐ Male ☐ Female

3. Age: _____

4. Likely at fault? ☐ Yes ☐ No

5. Residence: Commune ☐ ☐ ☐ ☐ ...
District ☐ ☐ ☐ ☐ ...Province/City ☐ ☐ ...

6. Occupation: ☐ Child ☐ Student (☐ Go and back from school ☐ No) ☐ Worker ☐ Vendor/small business ☐ Motor taxi driver ☐ Car/Truck driver ☐ House keeping/Servant ☐ Farmer ☐ Fisherman ☐ Tourist Expatriate ☐ Teacher ☐ Police ☐ Soldier ☐ Other government employee ☐ Unemployed ☐ Unknown ☐ Other:.............

7. Type of road user: ☐ Pedestrian ☐ Driver ☐ Passenger

8. Type of transport: ☐ Vehicle number: ☐ ... ☐ Pedestrian

9. Wearing a helmet/seat belt: ☐ Yes ☐ No ☐ NA ☐ Unknown

10. Having driving license: ☐ Yes ☐ No ☐ NA ☐ Unknown

11. Substance use: Alcohol: ☐ Yes/Suspected ☐ No ☐ Unknown   Drugs: ☐ Yes/Suspected ☐ No ☐ Unknown

12. Severity of injuries: ☐ No apparent injury ☐ Superficial injury (e.g. bruises, minor cuts) ☐ Moderate (fracture, suture) ☐ Severe (requires surgery or ICU) ☐ Died (☐ On site ☐ On the way to hospital ☐ At hospital)

13. Was the casualty transferred to hospital? ☐ No ☐ Yes (which hospital/HC? .... transferred by ☐ ☐ ☐ ☐ ☐)

14. Was the casualty received first aid? ☐ Yes ☐ No   15. Who provided this first aid? ☐ Traffic police ☐ Royal armed forces ☐ Samu/Ambulance ☐ Other

16. Type of first aid: ☐ Bleeding ☐ Unconsciousness ☐ Burn ☐ Cardiac emergency ☐ Respiratory emergency ☐ Wound ☐ Broken hand ☐ How to transfer victim ☐ Other ☐ ...

DRIVER/CASUALTY 2

1. Name: _____

2. Gender: ☐ Male ☐ Female

3. Age: _____

4. Likely at fault? ☐ Yes ☐ No

5. Residence: Commune ☐ ☐ ☐ ☐ ...
District ☐ ☐ ☐ ☐ ...Province/City ☐ ☐ ...

6. Occupation: ☐ Child ☐ Student (☐ Go and back from school ☐ No) ☐ Worker ☐ Vendor/small business ☐ Motor taxi driver ☐ Car/Truck driver ☐ House keeping/Servant ☐ Farmer ☐ Fisherman ☐ Tourist Expatriate ☐ Teacher ☐ Police ☐ Soldier ☐ Other government employee ☐ Unemployed ☐ Unknown ☐ Other:.............

7. Type of road user: ☐ Pedestrian ☐ Driver ☐ Passenger

8. Type of transport: ☐ Vehicle number: ☐ ... ☐ Pedestrian

9. Wearing a helmet/seat belt: ☐ Yes ☐ No ☐ NA ☐ Unknown

11. Substance use: Alcohol: ☐ Yes/Suspected ☐ No ☐ Unknown   Drugs: ☐ Yes/Suspected ☐ No ☐ Unknown

12. Severity of injuries: ☐ No apparent injury ☐ Superficial injury (e.g. bruises, minor cuts) ☐ Moderate (fracture, suture) ☐ Severe (requires surgery or ICU) ☐ Died (☐ On site ☐ On the way to hospital ☐ At hospital)

13. Was the casualty transferred to hospital? ☐ No ☐ Yes (which hospital/HC? .... transferred by ☐ ☐ ☐ ☐ ☐)

14. Was the casualty received first aid? ☐ Yes ☐ No   15. Who provided this first aid? ☐ Traffic police ☐ Royal armed forces ☐ Samu/Ambulance ☐ Other

16. Type of first aid: ☐ Bleeding ☐ Unconsciousness ☐ Burn ☐ Cardiac emergency ☐ Respiratory emergency ☐ Wound ☐ Broken hand ☐ How to transfer victim ☐ Other ☐ ...

DRIVER/CASUALTY 3

1. Name: _____

2. Gender: ☐ Male ☐ Female

3. Age: _____

4. Likely at fault? ☐ Yes ☐ No

5. Residence: Commune ☐ ☐ ☐ ☐ ...
District ☐ ☐ ☐ ☐ ...Province/City ☐ ☐ ...

6. Occupation: ☐ Child ☐ Student (☐ Go and back from school ☐ No) ☐ Worker ☐ Vendor/small business ☐ Motor taxi driver ☐ Car/Truck driver ☐ House keeping/Servant ☐ Farmer ☐ Fisherman ☐ Tourist Expatriate ☐ Teacher ☐ Police ☐ Soldier ☐ Other government employee ☐ Unemployed ☐ Unknown ☐ Other:.............

7. Type of road user: ☐ Pedestrian ☐ Driver ☐ Passenger

8. Type of transport: ☐ Vehicle number: ☐ ... ☐ Pedestrian

9. Wearing a helmet/seat belt: ☐ Yes ☐ No ☐ NA ☐ Unknown

11. Substance use: Alcohol: ☐ Yes/Suspected ☐ No ☐ Unknown   Drugs: ☐ Yes/Suspected ☐ No ☐ Unknown

12. Severity of injuries: ☐ No apparent injury ☐ Superficial injury (e.g. bruises, minor cuts) ☐ Moderate (fracture, suture) ☐ Severe (requires surgery or ICU) ☐ Died (☐ On site ☐ On the way to hospital ☐ At hospital)

13. Was the casualty transferred to hospital? ☐ No ☐ Yes (which hospital/HC? .... transferred by ☐ ☐ ☐ ☐ ☐)

14. Was the casualty received first aid? ☐ Yes ☐ No   15. Who provided this first aid? ☐ Traffic police ☐ Royal armed forces ☐ Samu/Ambulance ☐ Other

16. Type of first aid: ☐ Bleeding ☐ Unconsciousness ☐ Burn ☐ Cardiac emergency ☐ Respiratory emergency ☐ Wound ☐ Broken hand ☐ How to transfer victim ☐ Other ☐ ...

DRIVER/CASUALTY 4

1. Name: _____

2. Gender: ☐ Male ☐ Female

3. Age: _____

4. Likely at fault? ☐ Yes ☐ No

5. Residence: Commune ☐ ☐ ☐ ☐ ...
District ☐ ☐ ☐ ☐ ...Province/City ☐ ☐ ...

6. Occupation: ☐ Child ☐ Student (☐ Go and back from school ☐ No) ☐ Worker ☐ Vendor/small business ☐ Motor taxi driver ☐ Car/Truck driver ☐ House keeping/Servant ☐ Farmer ☐ Fisherman ☐ Tourist Expatriate ☐ Teacher ☐ Police ☐ Soldier ☐ Other government employee ☐ Unemployed ☐ Unknown ☐ Other:.............

7. Type of road user: ☐ Pedestrian ☐ Driver ☐ Passenger

8. Type of transport: ☐ Vehicle number: ☐ ... ☐ Pedestrian

9. Wearing a helmet/seat belt: ☐ Yes ☐ No ☐ NA ☐ Unknown

11. Substance use: Alcohol: ☐ Yes/Suspected ☐ No ☐ Unknown   Drugs: ☐ Yes/Suspected ☐ No ☐ Unknown

12. Severity of injuries: ☐ No apparent injury ☐ Superficial injury (e.g. bruises, minor cuts) ☐ Moderate (fracture, suture) ☐ Severe (requires surgery or ICU) ☐ Died (☐ On site ☐ On the way to hospital ☐ At hospital)

13. Was the casualty transferred to hospital? ☐ No ☐ Yes (which hospital/HC? .... transferred by ☐ ☐ ☐ ☐ ☐)

14. Was the casualty received first aid? ☐ Yes ☐ No   15. Who provided this first aid? ☐ Traffic police ☐ Royal armed forces ☐ Samu/Ambulance ☐ Other

16. Type of first aid: ☐ Bleeding ☐ Unconsciousness ☐ Burn ☐ Cardiac emergency ☐ Respiratory emergency ☐ Wound ☐ Broken hand ☐ How to transfer victim ☐ Other ☐ ...

Poster Presentations