



Road Safety as a Public Health Priority

Every year, nearly 1.2 million people die worldwide due to road traffic crashes – an average of 3,000 daily. In addition, about 50 million more are injured or incur disabilities as a result of road accidents. Ninety percent of road traffic deaths take place in low-income and middle-income countries where 81% of the world's population live and own about 20% of the world's total vehicles. (Source: *Road Traffic Injury Prevention, WHO, 2006*)

More than half of all global road traffic deaths or casualties are young adults between 15 and 44 years of age. Seventy-three percent of fatalities are males. Vulnerable road users – pedestrians, cyclists and motorcyclists – account for a much greater proportion of road traffic collisions in low-income and middle-income countries. (Source: *World Report on Road Traffic Injury Prevention, WHO, 2004*)

It is estimated that the cost of road traffic crashes reaches between 1% - 1.5% of gross national product (GNP) in low-income and middle-income countries. Road accidents that claim lives and cause disabilities put significant strain on families. For every person killed, injured or disabled, many others are deeply affected. Affected families are driven into poverty as a result of the high cost of prolonged medical care, the loss of a family breadwinner, or the extra funds needed to care for people with disabilities. Road crash survivors, their families, friends, and other caregivers also often suffer adverse social, physical, and psychological effects. (Source: *Road Traffic Injury Prevention, WHO, 2006*)

In the Philippines, accidents of all types - including road traffic crashes - rank fourth among the causes of mortality in all ages. Road traffic crashes constitute the second leading cause of injury death with a mortality rate of 7.8/100,000. (Source: *Philippine Health Statistics, 2003*). Among children 0-17 years of age, it is the second leading cause of injury death (with mortality rate of 5.85/100,000), next to drowning. (Source: *Philippine National Injury Survey, unpublished, 2003*). Along national roads and highways, 1,185 deaths and 5,870 non-fatal injuries were reported in 2006. (Source: *Traffic Accident Report Application System, Department of Public Works and Highways, 2007*)

According to police records, traffic accidents are caused mainly by driver's errors (28%), vehicle's mechanical defects (16%), over speeding (13%), and self accident (7%).

Traffic accidents in 2006 involved mostly automobiles (27%), followed by motorcycles (21%), jeepneys (19%) and trucks (11%). (Source: *PNP Traffic Management Group, 2007*)

But it is likely that underreporting occurs in the above mentioned police reports as separate reports from Traffic Accident Report Application System (TARAS) of the Department of Public Works and Highways (DPWH) and the Metro Manila Accident Reporting and Analysis System (MMARAS) of the Metropolitan Road Safety Unit of the Metropolitan Manila Development Authority (MMDA) are citing higher figures. An Asian Development Bank (ADB) Study on Road Safety in 2004 also acknowledged this underreporting of accident data.

In Metro Manila, the most common vehicle types involved in traffic accidents in 2006 were: cars (52.6%), jeepneys (9.6%), motorcycles (9.0%), and vans (8.69%). (Source: *Metro Manila Accident Reporting and Analysis System, MMDA, 2006*). Motorcycles have the highest fatality accident rate, accounting for 23% of all fatalities from road crashes in 2006. They are also the 2nd most common cause of injury from road crashes, attributed for 29.59% of all road traffic injuries in the same year, approximating injuries from cars crashes which comprised 30.22%. (Source: *Metro Manila Accident Reporting and Analysis System, MMDA, 2006*)

The last ten years saw a three-fold increase in the number of motorcycles in the Philippines. There were 821,599 motorcycles (including tricycles) in 1996, and the figure went up to about 2.41 million in 2006. Motorcycles, thus, accounted for 45% of all registered vehicles in 2006 (Source: *Land Transportation Office, 2007*).

The economic cost of road traffic injuries annually were estimated at: PhP 3.5 million per fatal accident; PhP 734,867 per serious injury; and PhP 71,483 per minor injury (Source: *"Estimation of Socio-Economic Cost of Road Accidents in Metro Manila" by de Leon, Cal, and Sigua, 2005*).

The 2006 data from the Metro Manila Accident Reporting and Analysis System (MMARAS) reports 0.27% of all fatal road traffic accidents are due to suspected alcohol use. Similarly, road traffic accidents registered by the Traffic Management Group of the Philippine National Police in 2005 revealed that 1.16% of road traffic accidents were due to drunk driving.

While drunk driving is not among the frequently committed traffic violations as reported by the Land Transportation Office (LTO), it is a growing concern as far as road safety is concerned. Even if there is a penalty of driving under the influence of alcohol of Php 2000, law enforcement finds it an impossible task to determine legally and instantly the amount of alcohol or drugs in the person's body at the time of an accident (*Source: Johnny Angeles of Manila Times*). Instruments like breath analyzers remains a luxury for the police and it might take time and a sizeable chunk of their budget before they can enforce random blood alcohol checks on the streets. Drunk driving in the Philippines is thus under-reported. (*Source: Powerpoint presentation of Dr Marina Baquilod, DOH, 2007*).

There is also no national helmet legislation at present. However, some cities/local government units have ordinances on helmet use. A national bill on helmet use has been filed but still pending in the House of Representatives and the Senate. A Department of Health (DOH) survey conducted in 2000 pegged helmet use at 34%. (*Source: Baseline Survey for National Objectives for Health, Department of Health, DOH, 2000*).

Pre-hospital care system is available only in selected sites/cities like Makati and Marikina to attend to road accidents victims. The MMDA also provides pre-hospital care in Metro Manila.

National Road Safety Initiatives

In 2003, the Multi-Agency Road Safety Committee headed by the Department of Transportation and Communication (DOTC) came up with the 2004-2008 Philippine Road Safety Action Plan (RSAP). The plan aims to save more than 10,000 lives by halving the anticipated increase in deaths per year and reducing the death rate (deaths per 10,000 vehicles) by 20% over a five year period. (*Source: Philippines Road Safety Action Plan 2004-2008*) In 2007, the plan was updated with the same targets extended up to 2010. This is now reflected in the national strategic plan for 2007-2010. The revised plan aims to establish a clear delineation of responsibilities among all stakeholders, with adequate technical and financial support in managing road safety activities; and to harmonize these activities towards an integrated and

well-coordinated national road safety action plan and its program implementation. (*Source: Philippine Road Safety Plan 2007-2010*).

The DOTC coordinates road safety by virtue of Administrative Order 184 in 2007. Funding for this effort is sourced from the motor vehicles user's charges (MVUC) as provided by Republic Act 8794 or Road Users Tax Law of 2000. MVUC fees collected are allocated as follows: Special Road Safety Fund (7.5%); Special Road Support Fund (80%); Special Local Road Fund (5%); and Special Vehicle Pollution Control Fund (7.5%).

The MMDA collects road traffic injury data in Metro Manila while the DPWH collects data of road traffic injuries along national highways and roads. The PNP through its Traffic Management Unit collects and analyzes reported road traffic injuries. The DOH piloted and established in 10 sentinel sites in July 2008 a hospital-based national electronic injury surveillance system.

The current Philippine Health Statistics data include transport injuries, collectively including those from road, water, and air transport crashes. Disaggregated data for road traffic accidents is not routinely available.

The DOH as part of its public advocacy and education efforts developed and distributed a drivers' health manual containing advisory messages for prevention of common diseases and road safety among drivers. "Road Safety is NO Accident" is the persistent theme commonly used in media campaigns. In 2004, it conducted a media launch of the World Report on Road Traffic Prevention and emphasized the need for a systems approach to road safety – one that addresses the road, the vehicle, and the user. In April 2007, it spearheaded efforts for the conduct of a massive media campaign to celebrate the first United Nations Global Road Safety Week in collaboration with partner organizations and stakeholders. Coordination and collaboration with government and non-government agencies for various road safety activities is continuously done as appropriate.

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Issues and Challenges

The DOH road safety initiative is integrated into the comprehensive Violence and Injury Prevention Program which seeks to prevent morbidity, mortality, and disability from violence and injuries in all ages. Issues and concerns categorized according to the four pillars of Fourmula One, the health sector reform framework of DOH, are as follows:

I. Service Delivery:

Pre-hospital care or post-crash care is currently available only in selected sites/cities like Makati and Marikina, and in agencies like MMDA in Metro Manila. DOH should strengthen its role as lead agency for promoting pre-hospital trauma care and should endeavor to have this type of services available in the community, especially in areas where accidents commonly occur. Whenever and wherever possible, existing clinics, hospitals, and health services should be used to ensure efficient mobilization of health-care resources. Because pre-hospital care involves public safety as well, inter-sectoral cooperation is essential. (*Source: Road Traffic Injury Prevention, WHO, 2006*)

Society has to be prepared to mitigate the consequences of crashes and enhance the quality of life of injured people. The aim of post-crash care is to avoid preventable death and disability, limit the severity of the injury and the suffering caused by it, and ensure the crash survivor's best possible recovery and reintegration into the society. The way in which persons injured in road traffic crashes are dealt with following a crash determines their chances and the quality of survival. (*Source: Road Traffic Injury Prevention, WHO, 2006*)

Advocacy and awareness raising events are continuously done by the DOH, DOTC, and other partners, but often limited by inadequate funding. In light of persistently high incidence of road traffic deaths and injuries, such activities should be sustained and strengthened to generate enhanced awareness, and supportive attitude and action towards road safety. Such activities also keep road traffic accidents high in the public agenda and continue to elicit support from national and local leaders and policy-makers.

Health education is done by the DOH to inform, educate, and transform behavior of the public on road safety. IEC materials and training manuals for health workers were developed in 2006, but reproduced and disseminated minimally. Capacity building of regional health managers was done in 2007 to eventually roll-out and share knowledge and skills learned to local partners. Such initiatives should be continued and strengthened, and implementation in the community should be ensured.

II. Governance

The role of the DOH is to design, coordinate and integrate activities plans and programs on violence and injury prevention as per AO 2007-0010 known as the National Policy on the Injury Prevention Program. The DOH is required to do advocacy within and outside the health sector. Within the health sector, it has to build the capacity of its health facilities and workforce to deliver preventive services for road traffic injuries. Being able to do this builds credibility of the agency to reach out to other agencies and sectors, like transport, police, public works, education, and others.

Road safety is a shared responsibility, and calls for multi-sectoral collaboration. Recognizing road traffic injuries as a major public health concern, the DOH can facilitate cooperation and collaboration among sectors and agencies notably the DOTC, DPWH, PNP, University of the Philippines National College for Transportation Studies (UP-NCTS), and others.

Agencies such as the MMDA, DPWH, PNP Traffic Management Unit, DOH and NSO collect and analyze data on road traffic deaths and injuries, but the data is not linked. There is no centralized database and no single agency is assigned to analyze data collectively. There are plans to have UP-NCTS (National College for Transportation Studies) to be responsible for database integration and analysis, and be responsible for dissemination of collected information on road traffic crashes. (*Source: Presentation of Usec Annelie Lontoc, DOTC, 2007*)

The DOH piloted and established in 10 sentinel sites in July 2008 a hospital-based national electronic injury surveillance system. Some issues encountered include: (1) Limited hospital resources, inadequate equipments and facilities; (2) Lack of human resource resulting in multi-tasking and the staff being overloaded. The surveillance work often becomes the last priority and affects the need for a timely and adequate information; and (3) Lack of capacity in data gathering and monitoring, analysis and computer skills. (*Source: Notes from Evaluation of the National Electronic Injury Surveillance System Workshop, Manila, 2008*). Such gaps should be addressed to ensure continuity and sustainability of the surveillance system.

III. Regulation

Current national legislations on road safety exist but are poorly implemented. (*Source: notes on Consensus Meeting on National Road Safety Data, DOH, 2008*).

National traffic legislations currently in place are as follows:

- Republic Act No. 4136 : An Act to Compile the Laws Relative to Land Transportation and Traffic Rules, to Create a Land Transportation Commission and for other purposes. The provisions of the Act control, as far as they apply, the registration and operation of motor vehicles and the licensing of owners, dealers, conductors, drivers, and similar matters. The law also specifies allowable speed limits for all types of vehicles.
- Republic Act No. 8750 or “Seat Belts Use Act of 1999”: An Act Requiring the Mandatory Compliance by Motorists of Private and Public Vehicles to Use Seat Belt Devices, and Requiring Vehicle Manufacturers to Install Seat Belt Devices in all their Manufactured Vehicles. The measure requires the driver and front seat passengers of a public or private motor vehicle to wear or use their seat belt devices while inside a vehicle of running engine on any road or thoroughfare:
- Republic Act No. 8794 : An Act Imposing a Motor Vehicle User’s Charge on Owners of All Types of Motor Vehicles and for Other Purposes. The Act requires MVUC to be collected from and paid by the owner of the motor vehicle.

A proposed bill mandating the wearing of standard-quality helmets for all motorcycle drivers and passengers has been filed and currently being deliberated in Philippine Congress.

There is currently no set blood alcohol limit for drivers. Alcohol has been shown to influence both the risk of a road crash as well as the severity of the injuries that result from crashes. (*Source: Road Traffic Injury Prevention, WHO, 2006*)

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IV. Health Financing

Funding for national initiatives on road safety is sourced from the motor vehicles user’s charges (MVUC) as provided under Republic Act 8794 or The Road Users Tax Law of 2000. Allocation of collected MVUC fees are as follows: Special Road Safety Fund (7.5%); Special Road Support Fund (80%); Special Local Road Fund (5%); and Special Vehicle Pollution Control Fund (7.5%).

The road safety fund is often distributed to various government agencies working on road safety projects, such as the DOTC, UP-NCTS, Department of Education, DOH, and others. These agencies often provide additional funding from their own budgetary allocations in carrying out road safety-related activities in line with their organizational mandates.

The Way Forward

There is a need for a system approach to road safety – one that addresses the road, the vehicle, and the user. The goals in traffic injury prevention should include: (1) reducing exposure to risk; (2) preventing road traffic crashes from occurring; (3) reducing the severity of injury in the event of a crash; and (4) reducing the consequences of injury through improved post-collision care. The responsibility needs to be shared between government, non-governmental organizations, private sector, and community. To be effective, road safety must have commitment and input from all the relevant sectors, including those of transport, health, education and law enforcement. (*Source: Road Traffic Injury Prevention, WHO, 2006*)

The DOH plays a critical role in advocating support for road safety and working with other sectors in carrying out various initiatives. It should continue to play its coordinative and collaborative role for a more integrated and systematic implementation of road safety interventions in the country.

Pre-hospital and hospital care as well as rehabilitation services should be strengthened especially in high prone areas - like cities and urban centers. Good practices and initiatives in pre and post hospital care, ambulatory, emergency services and in patient care for road traffic accidents in the different local government units should be documented by the Department of Health and disseminated to all local government units for the possibility of modelling and adaptation to respond to health consequences of road traffic accidents.

Links in the chain to extend help to road crash victims should be enhanced. Road accidents are emergency cases by nature. The thin line between life and death must be taken seriously and that emergency assistance should be in place. This is in the context of timeliness of response needed should road accident occurs. From the point of accident, it is important that the victim be taken care of and that an emergency intervention must be given outright.

Surveillance systems for road traffic injuries should be integrated and enhanced. Investments and support for the continuity and sustainability of the hospital-based national electronic injury surveillance system should also be increased. Surveillance data provides the evidence for advocacy, as well as policy and program development.

Multi-sectoral collaboration should continue to be the norm. Many determinants and interventions on road safety lie outside the health sector. The DOH, thus needs to continue to link with the DOTC and other partners for a comprehensive and integrated implementation of road safety interventions.

Health promotion and education should be strengthened to enhance the knowledge of population in preventing road traffic injuries and adopting positive behavior on road safety. The use of tri-media campaigns should be stepped up and capability building of health workforce on advocacy and prevention of road traffic injuries should be sustained.

Advocacy for national legislation on mandatory helmet use for motorcyclists should be pursued. Injuries to the head and neck are the main causes of death, severe injury, and disability among users of motorcycles. Wearing a helmet is the single most effective way of reducing head injuries and fatalities resulting from motorcycle and bicycle crashes. Wearing a helmet decreases the risk and severity of injuries by about 72%, the likelihood of death by up to 39%, and the costs of health care associated with crashes.

Advocacy against drinking and driving should also be pursued. National blood alcohol limits should be set and capacity to monitor and manage alcohol concentration in the body should be built or strengthened.

References:

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