

Nine Recommendations for the Safety on Road both of the People and the Traffic Police

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ABSTRACT

Safety of people and traffic police on road and the provision of prompt and appropriate treatment of injured persons in road accident are urgent concerns. The nine recommendations accordingly made are 1) Considering anyone who informs about or brings to the hospitals the accident victims as innocent until proved otherwise, 2) Annual payment by all vehicle owners (as per the cost of vehicles) to generate treatment fund for any road accident injured patients in the free general (not paying or private or extended health service) outdoor or emergency clinics or ward of the public hospitals irrespective of anyone's fault in the accident (insurance or other agencies may be assigned to handle the amount deposited and reimbursement of the payments to the hospitals), 3) Implementation of helmet wearing by motorcycle riders and pillion riders in motorcycles, 4) Stricter fine for hazardous traffic offenses, 5) Drivers of the larger vehicles should not automatically be held responsible for any accidents involving other smaller vehicles (to prevent smaller vehicles and motorcycles to drive recklessly), 6) Drivers should not be just held responsible to bear health expenses of injured patients (which is much more than the compensation required in the event of death of injured persons); this is to encourage drivers to take injured persons immediately to hospitals and prevent inclination to allow their deaths indirectly or directly; the drivers should be proportionately fined or punished as per the traffic regulations if they are found to be negligent, 7) Safe and visible platform for the traffic police to stay on the road, 8) Provision of cost-effective respirators for traffic police and traffic supervisors, and 9) Compensation for occupational hazards to the traffic police and field traffic supervisors by distributing to them adequate proportion (e.g. one-third to one-half) of the fund collected by stricter fine paid for the hazardous traffic offences. Provision of various allowances, including for hazards, and benefits is a common practice in the country. Compensation for the occupational hazards of the traffic police provides incentives to and motivates them to remain vigilant about hazardous traffic offenses day and night everywhere and, thus, is essential for the safety of the people.

Keywords: compensation; mask; occupational hazard; respirator; road accident; treatment fund; traffic police

INTRODUCTION

The traffic police news regularly updates the traffic regulations, problems and accidents and death. The road deaths due to vehicle accidents are quite high in our country. Even within the city limit, road accidents with serious injuries and deaths are common. Because many deaths in road accidents occur in young adults, the loss of potential healthy life

and the economic consequences to the family and society are great.¹ Maslow's hierarchy of human needs has well highlighted that after the basic physiological needs for food, water and shelter, the needs for safety and security arise.² Safety and security is a need for everyone everywhere. Moreover physical inactivity is estimated to cause around one fourth of breast and colon cancer, one third of diabetes and one third of ischemic heart disease burdens.¹ Physical activity is essential for mental health as well. The government has the responsibility to promote and make walking and physical activity possible. Thus the issues of safety and security in road both for people and traffic police are of importance for all health care and medical professionals and higher police officers. To

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make the road safe for everyone – whether on vehicles or at road while crossing the road at zebra-crossing (even if there is no traffic light or traffic police nearby) – or at footpath should be the aim. Traffic police are also not safe in the middle of the road and on the top they are regularly exposed to the hazards of the air pollution due to traffic vehicles. In this brief communication, the article will focus on such safety issues which are possible to be dealt with in the existing situations as well as the ways to deal with them.

SAFETY ISSUES OF THE PEOPLE

The pedestrians and passengers are two of the top hierarchy groups to consider while developing transport and traffic strategies.³ The license to drive is allowed and maintained by the traffic police. So the traffic police have the responsibility to regulate the license holders and prevent hazardous traffic offense through continued vigilance by maintaining the motivation of the traffic police personnel to basically increase the safety of the people. It is difficult to make pedestrians to cross the road through the zebra-crossings by education only unless the zebra-crossings are safe.

The major hurdle to impose strict fine and punishment for hazardous traffic offenses is the continued vigilance required of the traffic police. Some form of motivation of the traffic police linking it some incentive may help to achieve such required continued vigilance day and night everywhere.

The treatment of road accident injured patients is another major issue. The cost of treatment of any medical conditions is virtually unlimited due to the wide variation in the service, investigation and treatment choices. However it is essential to ensure the prompt initiation and provision of appropriate treatment to all road accident injured persons.

Prompt treatment of any injured person may prevent death and disability: People may be afraid to inform police about any accident or take injured persons to hospitals for the fear of being harassed by the police. The injured persons may even die due to bleeding and other complications in such cases. Such situation needs to be improved.

Appropriate treatment of injured persons:

If poor people are injured in an accident, they may not have any personal insurance and there may not be adequate free treatment service in public hospital. It is often not possible to provide all investigations and treatments freely in free general outdoor clinics, emergency departments and wards of the public hospitals. The third party or comprehensive insurances are often focused on vehicle owners and often require finding whether the fault was caused by their vehicles or not; such investigations may not be easy in our situation and may be time consuming. Further the cost of treatment will vary much depending on whether the patients are treated in general free or paying or extended health service even within public hospitals and in teaching hospitals or in different grades of private hospitals. The road accident fund, available in some countries,⁵ may be based on similar principles, but may involve government bureaucratic processing and be limited. Moreover often in accident involving two or more vehicles, it is considered that the larger vehicle is at fault and the driver (even if they are not negligent) of the larger vehicles may have to bear the health expense of injured patients for long time which is much more than the compensation required in the event of death of injured persons. In these situations, any vehicle drivers may not like to stay in the accident site, take the injured person to hospital or to inform about the accident. Moreover the heavy vehicle drivers, who are themselves often poor, may even be inclined to cause deaths of the accident victims, as it is often rumored, by further running over by their vehicles. Such assumption, or regulation if present, should not be allowed to be continued. There is real need of generating regular and sufficient fund for the treatment of any injured persons irrespective of the fault of any side at least in the free general (not paying or private) outdoor or emergency clinics or ward of public hospitals.

Protection of the brain – the controller of whole body: Brain is the compact organ to control the vital functioning and movements of the body. There are two points to understand to know the importance of protection of the head and brain by helmet.

- Firstly small areas in brain controls different parts and functions and are

connected to their and other organs system by complex nerve routes. Such areas and nerve connections of brain may have difficulty in full regeneration if diseases or injured. Disruption of such small areas and nerve connections in brain, thus, can lead to serious consequences which may be difficult to treat. Injury to the parts controlling the vital functions can lead to even immediate death.

- Secondly the bones of head are designed to protect the brain. However due to the hard bony structure skull allows only limited space inside. When there is any injury and the injured part of the brain swells like any tissue in the body, the swelling increases the pressure inside on other important parts of the brain and can have immediate serious effects in the vital functions of the body.

Thus small injury to brain could lead to immediate deaths, paralysis, serious lifelong disability and various complications. The safety of drivers and pillion riders of two wheelers is a serious concern as their heads are widely exposed and vulnerable to injury by any vehicle or by even simple fall on the ground. The speed of the motorcycles and other involved vehicles can greatly increase their momentum and thus impact of injury. A prospective study conducted in the Emergency Department of Bir Hospital to study the various factors related to motorcycle accidents showed that motorcycle driving is associated with risks of serious injuries like fractures and head injuries and deaths not only to its driver but also to pillion riders.⁴ The risk of injuries and deaths appeared to be even more among pillion riders as compared to motorcycle drivers, as only motorcycle drivers were using the helmet. The study recommended implementing legal limit of alcohol for drivers, having regular roadside checks of alcohol concentrations by breath test and making compulsory use of helmets for pillion riders.⁴

SAFETY OF TRAFFIC POLICE AND FIELD TRAFFIC SUPERVISORS

Traffic police have to stay whole day on the road and the field traffic supervisors have to be on the road to guide the traffic police from one place to another. They face two types of hazards.

- **Risk of injury:** Traffic police may have to stand in the middle of the road to guide the traffic and are quite vulnerable to be injured by any vehicle. There should be some safe platform for them to stand especially when the traffic is fast. The platform where they stand should be made as far as possible safe and also visible to the drivers in the traffic.
- **Air pollution:** Urban outdoor air pollution accounts for around 1.2 million deaths per year globally. Of all of the urban air pollutants, fine particulate matter has the greatest effect on human health.¹ Worldwide, fine particulate matter is estimated to cause about 8% of lung cancer deaths, 5% of cardiopulmonary deaths and about 3% of respiratory infection deaths. Most fine particulate matter comes from fuel combustion from vehicles; other source is power plants.¹ Traffic police are exposed to, apart from the visible dusts in the road, the significant proportion of toxic fine particulate matter coming from fuel combustion from vehicles and thus face various acute or chronic health hazards and complications.

Management of traffic by traffic lights alone without exposing traffic police to the hazards is not immediately feasible in our country. How to minimize the above two risks is one issue. Provision of compensations is another issue. As these risks can cause diseases, disability and deaths increasing the financial burden to the traffic police and their family, the compensation for such occupational exposure of hazards while on duty every day needs to be considered.

NINE RECOMMENDATIONS

Taking into account the various aspects of safety on road both for people and traffic police, there are nine recommendations to be considered by the health care and medical professionals and police officers.

1. **Considering anyone who informs about or brings to the hospitals the accident victims as innocent until proved otherwise:** To encourage people to quickly help the injured patients on road, those who bring such injured accident patients to hospitals or inform police about the accident should be considered 'Innocent until and unless evidenced by other sources' and should

not be unnecessarily harassed by the police. It will ensure prompt information and treatment of road accident injured people. Later on such people may even be honored or at least acknowledged in some ways. Appropriate timely treatment of any injured person anywhere is the priority. For it prompt medical attention and care need to be ensured and facilitated.

2. **Annual payment by all vehicle owners (as per the cost of vehicles) to generate the treatment fund for any road accident injured patients in the free general (not paying or private or extended health service) outdoor or emergency clinics or ward of the public hospitals irrespective of anyone's fault in the accidents:** Regulation can be made for all vehicle owners to make regular annual payment (as per the cost of vehicles) to generate fund for the treatment of any road accident injured patients in the free general (not paying or private or extended hospital service) outdoor or emergency clinics or ward of the public hospitals. The cost of treatment will vary much depending on whether the patients are treated in general free or paying or extended health service even within public hospitals and in teaching hospitals or in different grades of private hospitals. Such treatment support is to be provided irrespective of the fault of any sides to ensure to bear the required costs of any injured road accident patients in free general wards of public hospitals. It will ensure all investigations and treatments which are not provided free even in the free general outdoor or emergency clinics or wards of public hospitals. The regulation will thus support the free general outdoor or emergency clinics or wards of public hospitals. Private health institutions are also likely to come forward to participate even with such equivalent subsidized financial arrangement to increase the popularity of their institutions or to fulfill their corporate social responsibility or for teaching and training their trainees. Many who can afford or have separate insurance or other choices may go to other available services. Considering the small proportion of accidents in relation to the number of vehicles and the provision of treatment in such ways, the annual

payment amount may not be much for the individual vehicle owners and there will be adequate fund generation. Such fund generation thus helps to bear the cost by the poor drivers and injured persons, to ensure initiation of appropriate timely treatment of any unconscious injured patients and to support the free general health service of public hospital and the budget of governments. With the provision of free treatment in this way the drivers will not have to be held responsible to bear all health expenses of injured patients (which is much more than the compensation required in the event of death of injured persons). This will prevent inclination to cause deaths of the accident victims indirectly by leaving the injured persons on the road or even directly by further running over such injured persons by their vehicles. The drivers should be punished as per the traffic regulations if they are found to be negligent. For appropriate generation and management of such treatment fund, the two points below can be considered.

- Government should ensure the regular annual payment by all vehicle owners and the insurance or other agencies may be assigned to handle the amount deposited and reimbursement of the payments to the hospitals.
- To generate sufficient fund, the annual payment requirement of different vehicles should be as per the cost of vehicles.

3. **Implementation of helmet wearing by both drivers and pillion riders in motorcycles:** To protect head from any injuries, the use of helmets by both drivers and pillion drivers of two wheelers and by the workers in various construction sites is the standard recommendation and practice. The workers in various construction sites do wear helmets. The use of helmets makes the bicycle riders also safe on the road. However various factors may need to be considered to recommend it as a regulation for all bicycle riders, e.g. the relative cost of bicycle and cycle-helmet and others and can perhaps be considered after the implementation of its use for motorcycle pillion riders. The speed of vehicles aggravates the impact of any apparent small injury in accidents on the road.

Thus there is no doubt about the need of implementation of helmet use by both drivers and pillion riders of motorcycles. In Thailand, a motorcycle helmet law cut deaths by 56%.¹ Moreover in the motorcycles, the drivers can see ahead and in mirrors and control the driving whereas the pillion riders sitting behind have limited visibility and are unprepared for any sudden driving decision taken by the motorcycle drivers. Thus, there is no reason why the motorcycle drivers only should wear helmet when the pillion riders sit behind vulnerable with their heads exposed. In fact, with the safety provide by the helmet, the motorcycle drivers can be inclined to drive the motorcycle more recklessly. The paralysis, disability and deaths of motorcycle riders can be easily caused by head injuries even in minor accidents of or slips of or falls from the motorcycles. On the contrary if the head is protected by the helmet, it mostly requires relatively severe accidents to cause deaths or long-term disability.

4. Stricter fine and punishment for hazardous traffic offenses: Stricter fine and punishment, as per the nature of traffic offenses, may need to be considered and applied for some hazardous traffic offenses which can grossly affect the safety of people, drivers, passengers or pedestrians, (e.g. in increasing order of severity of fine):

- not using helmet by drivers or pillion riders,
 - driving in foot path,
 - talking on hand-held mobile phone (Talking on the hands-free phone is allowed in most countries, though it is also associated with some risk of distraction and accident)
 - exceeding the speed limit grossly (Speed limits for different roads should be displayed clearly),
 - irregular vehicle maintenance certification as required for different vehicles for highways and other areas
 - injuries to pedestrians in footpath including by vehicles coming from any passage to the houses with the access to the main road,
 - injuries to pedestrians by vehicles in zebra crossing,
 - driving in one-way road in opposite direction,
 - drunk driving and
 - deliberate running over the already injured persons by the vehicles by the drivers to avoid bearing the treatment cost for long time (Such act may be the criminal one and may need to be considered as a homicidal case).
- 5. Drivers of the larger vehicles should not automatically be held responsible for any accidents involving other smaller vehicles:** In any accident involving two or more vehicles, it should not be just assumed that the drivers of the larger vehicle are at fault. If such regulations exist, they should be rectified. Otherwise in such situations, the drivers of the smaller vehicles and motorcycles may tend to drive recklessly and the drivers of the heavy vehicles, e.g. of trucks and buses, who are themselves often poor, may get the inclination to cause deaths of the accident victims by further running over such injured persons by their vehicles. The drivers should of course be punished as per the traffic regulations if they are found to be negligent. Otherwise those who can afford to pay any compensation may be less cautious to avoid any accident. The priority is the safety of any injured and other persons on the road.
- 6. Drivers should not be just held responsible to bear the health expenses of injured patients (which is much more than the compensation required in the event of death of injured persons) – the drivers should be proportionately fined or punished as per the traffic regulations if they are found to be negligent:** The drivers of any vehicles should not be just held responsible to bear the health expense of injured patients for long time (which is much more than the compensation required in the event of death of injured persons). The cost of treatment will vary much depending on whether the patients are treated in general free or paying or extended health service even within public hospitals or in different grades of private hospitals. The drivers should be proportionately fined or punished as per the traffic regulations if they are found

to be negligent. It will help to prevent smaller vehicles and motorcycles to drive recklessly and to encourage drivers to take injured persons immediately to hospitals and prevent inclination to allow their deaths indirectly or directly.

7. Safe and visible platform for the traffic police to stay on the road:

Traffic police may have to stand in the middle of the road to guide the traffic and such platform where they stand should be made as far as possible safe and also visible to the drivers in the traffic.

8. Provision of cost-effective respirators for traffic police and field traffic supervisors:

The medical or surgical mask is meant to help reduce the exposure of respiratory secretions of mask wearer to others and also to help block large-particle droplets, sprays or splatter that contain germs (viruses and bacteria) to protect the mask wearers.⁶ The filtration capabilities of respirators to protect from very small particles in the air containing germs and air pollutants exceed those of facemask.⁶ To protect the healthcare workers, the international guidelines recommend the use of a mask (i.e. medical or surgical mask) in low-risk settings and a respirator in high-risk settings (e.g. during aerosol generating procedures, caring patients with suspected infectious tuberculosis).⁷ The term 'respirator' includes a range of personal respiratory protection products, including disposable filtering face-piece respirators.⁸ The 'N95' designation means that when subjected to careful testing, the respirator blocks at least 95% of very small (0.3 micron) test particles;⁶ and 'N99' blocks 99% of very small test particles. Traffic police and field traffic supervisors should be provided appropriate cost-effective respirators to wear while on duty.

9. Compensation for occupational hazards to the traffic police and field traffic supervisors by distributing to them adequate proportion (e.g. one-third to one-half) of the fund collected by stricter fine paid for the hazardous traffic offences: As discussed above the traffic police and field traffic supervisors are daily exposed to the occupational

risks of accident and air pollution while on duty. These risks can cause diseases, disability and deaths increasing the financial burden to the traffic police and their family, the compensation for such occupational exposure of hazards while on duty every day needs to be considered. There are three points to be realized in this regard.

- **Hazard allowances in public institutions:** The compensations for the harms caused by others and for the occupational hazards are given here also. In our country hazard allowances are given to the health care and medical professionals working in the government health institutions in the field of radiology, radiation, pathology and others.
- **Extra benefits, facilities and allowances in public institutions:** Similarly in our country there is system of extra benefit, allowances, bonuses, or retirement facilities to the employees working in the government and public institutions like telecommunication, banks, airline and oil corporations, and others. Unlike traffic police, they are not as such exposed to any physical and health hazards while being on duty regularly.
- **Fund generation for compensation linking with the improvement of performance and safety on road:** Third point is the linking of the fund generation for such compensations with promotion of performance of the traffic police and the prevention of serious traffic violations. Depositing adequate proportion (e.g. one-third to one-half) of the stricter fine paid for the serious traffic offenses (as enumerated in the Section 4 above which can grossly affect the safety of people, drivers, passengers or pedestrians) to the fund to be distributed to the traffic police and field traffic supervisors as occupational hazard allowance will help to motivate and improve the performance of the traffic police in the prevention of such hazardous traffic offences. It will ultimately increase the safety of the people, viz. drivers, passengers and pedestrians only (Figure 1).



Figure 1. Linking of the stricter fine for hazardous traffic offenses to the compensation for occupational hazards to the traffic police to increase the motivation of traffic police for increased vigilance of the hazardous traffic offences ultimately required for the safety of people on road.

In this way, compensation for the occupational hazards can be arranged with generation of fund simultaneously motivating the traffic police for stricter implementation of the traffic regulations required for the serious traffic offenses. As long as the system of provision of the compensations and extra allowances are given in various government and public institutions, the traffic police (who are one of the lowest paid staff in the police service) may similarly receive the compensation for their definite occupational hazards. Safety on the road both of the people and the traffic police is the real concern for everyone. Compensation for the occupational hazards of the traffic police

- acknowledge the risk of air pollution and occupational hazards,
- motivates to remain vigilant about hazardous traffic offenses, and
- thus increases the safety of the people.

SUMMARY

Safety on road both of the people and the traffic police as well as the timely and appropriate treatment of the road accident injured patients are the basic concerns. The backgrounds and recommendations outlined attempt not only to address these basic concerns but also to provide support to the general outdoor, emergency and ward services of the public hospitals and to generate revenue. All health care and medical professionals and higher police officers should take the necessary possible initiatives for appropriate advocacy for the safety and security in road both for people and traffic polices. In this way only the safety of everyone and their family can be improved.

CONFLICT OF INTEREST: None.

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