

# Observations and Recommendations for Injury Prevention

## Tbilisi, Georgia

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Motor Vehicle Injuries:

The statistics gathered from the Ministry of Police and traffic safety are as follows. These numbers may underestimate the problem due to the common practice of not reporting accidents. Also after meeting with and observing the statistics department, I must conclude that their system could at best be described as archaic. Many numbers were generated by hand.

Year	Number of Traffic Accidents	Death-Roll	Victims
1988	2396	668	2801
1989	2621	797	3070
1990	2963	1067	3484
1991	3574	1145	4391
1992	2504	883	3253
1993	1522	542	1913
1994	1539	494	1977
1995	1567	450	1910
1997	1644	449	2076

Age of Driver	Number of Accidents	Driver Death	Driver Injury	Total number of drivers	Percent of driver in accidents
0-7		0	0	0	
7-15		1	1	0	
16-25		29	150	Unknown	
26-40		62	263	Unknown	
41-60		22	116	Unknown	
60>		4	10	Unknown	

Observations on general traffic conditions in Georgia:

War, changes in economy, and changes in political state have had a significant impact on traffic conditions and safety. Potential problems in injury prevention are as follows:

1. State of roads- In general the roads, including expressways, are in terrible condition, ridden by potholes. Drivers are preoccupied with avoiding them and cannot concentrate on traffic. If possible gathering statistics on the frequency of accidents due to or contributed by the road conditions, might strengthen a plea for road repair. The last statistics gathered in 1995 are as follows:

Traffic Conditions	Number of total traffic Accidents	Death-Roll	Victims
Slippery Roads	20	7	23
Unsatisfactory state of roadside	22	13	22
Unarranged railway passage	2	1	1
Absence of crosswalks or	12	4	9

sidewalks for pedestrians			
Absence of barriers around dangerous places	6	3	5
Unsatisfactory illumination	38	20	30
Absence of barriers around roadwork	1	1	3
Absence of traffic signs	11	5	16
Faulty light signal	1	1	2
Absence of traffic lines	4	1	7
Other	298	105	350
Total	418	163	473
Percent of all accidents	26.7		

\*taken from the report, Study of Traumatism in Georgia 1996; by The Health Project of Georgia

1. State of traffic control- In Tbilisi many traffic lights are dysfunctional or lack electricity. By observation only there appears to be no patrolling of traffic by the police, although there are 60,000 police officers on the payroll. One often wonders if there are laws governing traffic at all.
2. State of motor vehicles-With the opening of the borders to foreign goods, many non-Soviet automobiles have been introduced into Georgia. While these vehicles tend to be used and several years old, there are in significantly better condition. They also can generate much faster speeds. This is in sharp contrast to the 10-20 year old "Lada" vehicles on the roads. They compete (for there is lack of a better word) for road space at different speeds.

Type of vehicle	Accidents	Death-roll	Victims	totals
Car	1221	321	1582	
Large vehicle (vans)	87	35	96	
Bus	37	29	127	
Motorcycles	14	2	16	
Electric tram	3	1	2	
Tractors	6	1	5	
Total	1368	389	1828	355,594 vehicles registered.

1. Lack of seat belt use- Parliament mandated seatbelt use over one year ago; however, the law has since then been revoked for unknown reasons. Most Soviet cars do not have functional seat belts. Most people do not use the functional ones because, 1. no law, 2. myth that they do not generate enough speed to need seatbelts and 3. No tradition of use.
2. Lack of Air Bags-Most automobiles in the Republic of Georgia are not equipped with airbags. I have been told that they are not feasible. They deploy inappropriately with jarring of car by potholes.
3. Lack of Child safety seats-Not used. No laws requiring their use. No seat belts to secure them. Studies have already been conducted showing decreased morbidity and mortality with the use of Child safety seats.
4. Lack of laws on child safety-No laws necessitating children under the age of 6 to sit in the back seat. In 1997 the breakdown of those dead and injured in car accidents by age is as follows:

Age	Death-roll	Victims	Population (1993)	Percent of population
0-7	15	50		
7-15	9	96		
16-25	87	537		
25-40	150	757		
41-60	120	470		
>60	68	162		
Total	449	2072	(1996) 5,377,200	.0468%

In 1995, 29 children under the age of 16 died from traffic accidents.

#### Drunk Driving

Year	Number of accidents caused by drunk drivers	Number of dead drunk drivers	Number of injured drunk drivers	Percentage of accidents involving drunk drivers
1995 Georgia	61			5.1%
1997 Tbilisi	67	8	100	8.4%
1997 Georgia	131	21	177	7.9%

These numbers undoubtedly underestimate the problem. A large percentage of accidents due to drunk driving probably remain unreported i.e. more so than accidents to other causes. Unfortunately, statistics were not gathered as to the number of total people injured due to drunk drivers. Only statistics about the injuries of the drivers themselves were recorded. Probably 7.9% or higher of all injuries and deaths are due to drunk driving by these statistical numbers. It would be interesting to know if all drivers involved in accidents are tested for alcohol or if only those included in the drunk driving category are obviously inebriated. And if they do test, what is the blood level needed to establish intoxication.

High speeds-Although many Georgians (at least Tbilisians) believe that seatbelts are unnecessary due to the slow speeds the cars generate, statistics show otherwise.

	Accidents involving high speeds	Deaths due to high speeds	Injuries due to high speeds
Tbilisi	225	55	266
Georgia	468	153	546

Lack of Separation of Pedestrian and Motor vehicle ways-

In Tbilisi there are underground cross-walks in well frequented areas such as Rustaveli St. Unfortunately, pedestrians do not use these much. In other areas there are no crosswalks or signals. Pedestrians tend to cross the street at any point. Thus we have four things competing for road space: pedestrians, fast cars, slow cars and potholes. Pedestrians do not only cross roads at intersections. There is no right of way of the pedestrian. Also the sidewalks are not large enough to accommodate the large number of pedestrians and merchants selling goods, especially in the older sections of the town where the streets are narrower decreasing the space the pedestrians and autos have to compete for.

## **Occupational Health**

Observations: I visited one site, which happened to be the Pipeline Project connecting Azurbijan to the Caspian Sea. This construction project has three subcontractors, 2 foreign companies and 1 Georgian. The workers are a compilation of nationalities: Pakistani, Indian, Turkish, and a small fraction Georgian. A foreign medical services company was contracted to provide occupational care. I spoke with the doctors at these sites. They described their practice which included, mainly foreign body wounds (due to lack of supervision), scabies (due to poor living conditions) and gastrointestinal illnesses (due to poor hygiene in the kitchen areas). There had been an attempt to provide adequate ventilation and protective wear to those workers working with chemicals however, I was not able to see the final product.

The various industries in Rustavi, a Soviet town established 50 years ago to provide workers for the industries established there, were all shut down. Honestly, there does not appear to be many active industries in Georgia at this time.

Perhaps this would be the best time to establish laws, using the WHO criteria to assure international occupational health standards. Also, a department could be developed that would assure compliance with the laws by lobbying fines and making recommendations. The program could be self sustaining.

## **Burns**

Last year in the entire country of Georgia, there were a total of 3652 fires that the fire department responded to and reported, 1924 of which were in Tbilisi itself. A total of 72 persons were found dead at the scene; however, according to the statistics provided, 49 women and 51 men died. A total of 100 people were injured at the scene. The breakdown of ages follows:

Age	Deaths	Injuries
0-10	2	3
11-25	5	7
25-55	30	37
>65	35	53

The causes of the fires resulting in death or injury are as follows:

#1 Failure to follow safety precautions regarding heaters - 69 people

#2 Illegal use of electricity - 45 people

#3 Kerosene heaters - 30 people

#4 Propane gas - 28 people

Currently there is no central heating in any housing in the Republic of Georgia. The buildings were constructed to supply heat through a central boiler. However, there has not been enough electricity to keep these going and the structures themselves have since fallen into disrepair. At times there will be 2-3 heaters in a room. There appears to be very little insulation. Shoddy construction resulted in cracks to the outside. Windows are all single paned.

Although I am not an electrician, my general feeling is that the buildings are filled with shoddy (faulty and aged) wiring. Inhabitants have constructed their own external wiring so as to tap into the central electrical lines. These connections are not done by professionals. I myself saw my hostfather poised in a tree, waiting for wire to be thrown to him. Thus residents have succeeded in paying for only 10-20% of their electricity by the last estimates.

Inside the houses many appliances are hooked up to few outlets, thus creating an even greater fire hazard.

## **Intentional Injuries**

Information gathered from the police is as follows:

	Tbilisi	Georgia	Male	Female
Victims of murder	75	285		
Victims of rape	12	41		
Victims of attempted rape	3	18		
Suicide	8	16	20	4
Domestic homicide: perpetrator	8	34	31	11

The two main reasons cited for suicides were, conflicts with a spouse and psychiatric disease.