

## TRAFFIC INJURIES IN MALTA — SOME CONSIDERATIONS AND SUGGESTIONS

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*A grievance I always have is on the question of education, and this is the most important point of all. I am not going to be involved in a political speech as I have nothing to do with politics, but coming back to the present day I believe that we as a country have failed to educate ourselves up to our improved standards of living. I do not think that people today who are enjoying better conditions of life make the best use of their improved conditions. Not only have we failed in that respect, but we have failed miserably, to my mind, with the education of the driver.*

(R. Priestley "The Vehicle and the Road" — Medicine, Science and Law. Oct. 62)

I would like to preface my remarks by saying that I am chiefly interested in seeing how far, and in what way, local conditions affect the incidence of traffic injuries in Malta, and, at the same time, to make some tentative suggestions for their control.

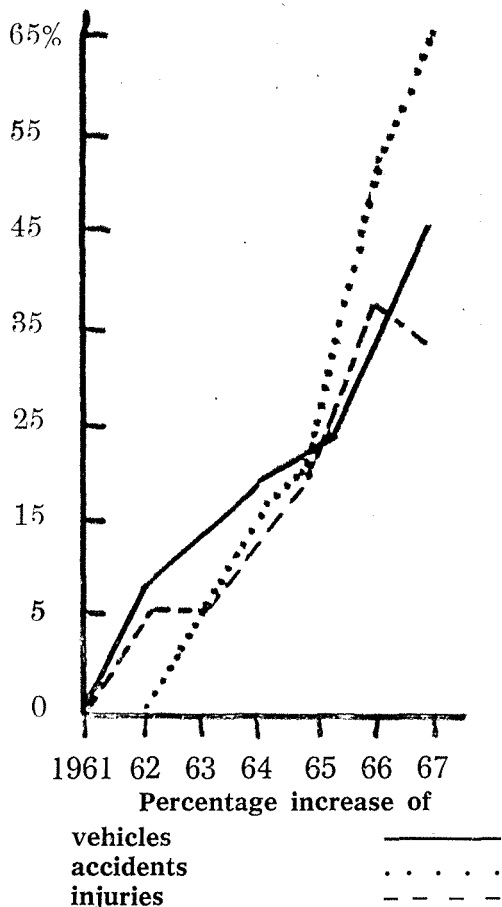
The very great and rapid increase in traffic which has characterized these last few years reflects the increased tempo of living in Malta; and as this, far from decreasing, appears to be becoming still more intense, it is justifiable to expect with it a further increment in the volume of traffic, and with it an increase in the number of traffic accidents and injuries. Unfortunately, it is beyond human power to eliminate them completely, and all we can do is to try to bring them down as

much as possible. This it is our duty to attempt.

During 1967, excluding service transport and an unknown number of bicycles and horse-drawn vehicles, there were 40209 motor-driven vehicles on the road as against 26880 in 1961, an increase of 50%. At the same time the total number of accidents rose by only 32% that is from 589 to 781 (fig. 1). This number includes injuries arising from accidents involving bicycles and horse-driven vehicles as well.

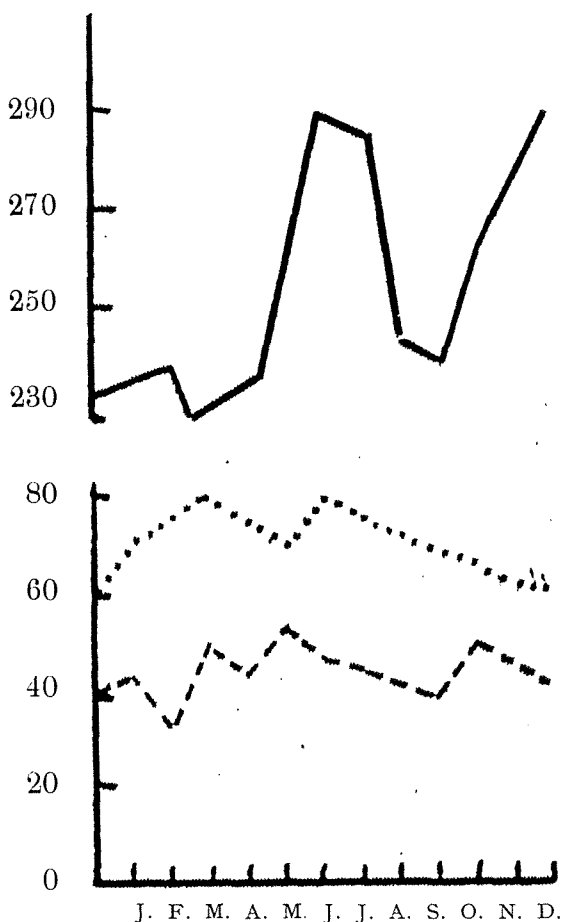
Of the three curves, that showing the total number of accidents is the highest, whilst that showing the number of injuries

Fig. 1



is the lowest. The crude figures here given do not, however, show the real relation between accident and injury: first because accidents not causing personal injury are not recorded as they are often settled out of Court; secondly because the figures available do not show, either the number of such accidents, or the number of casualties in any one accident. Thus, in 1967, which is the only year for which any sort of analysis could be obtained, out of 3140 accidents registered only 602 caused personal injury, and there were 781 casualties (Fig. 2).

Fig. 2



**Accidents and injuries in 1967**

Total of Accidents ———  
 Accidents involving personal injury - - - -  
 Number of injuries . . . .

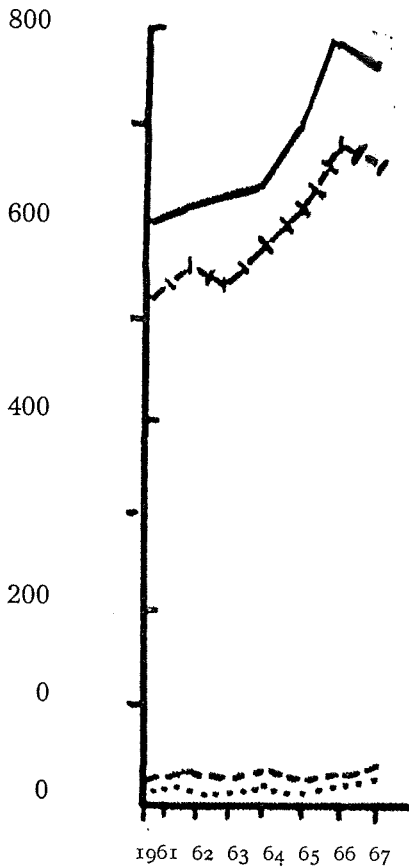
According to our Criminal Code injuries are classified as slight, grievous and fatal. Fatal injuries are those that are followed by death, whether immediate or not; grievous are those that (i) endanger life; (ii) penetrate one of the body cavities; (iii) disable an individual for a period longer than thirty days; or (iv) are followed by a permanent disfigurement or permanent disability. All the rest are slight in nature. Fig. 3 shows the incidence of each category as compared to the total number of accidents. It is interesting to note how closely the slight injury curve follows that for total injuries, whilst the curves for grievous and fatal injuries lag far behind at the bottom of the graph, with only slight variations for each individual year.

If, without excluding the fact that even a slow moving vehicle may cause grievous and even fatal injuries, it is admitted that slight injuries are more likely to happen in slow moving traffic, it would seem that congestion on the roads, rather than speed, is one of the main factors in the causation of injuries.

This appears to be borne out by the distribution of injuries during the twenty-four hours; they occur with greater frequency during the rush hours, when the streets may be said to be saturated rather than only congested with traffic (Fig. 4). The significance of the short and small rise which occurs between 1 and 2 a.m. is not clear as no data for previous years are at hand, but may become so within the next few years. Most probably it is to be associated with a night life that is becoming a regular feature of the Malta scene; but, whether it is due to the increased consumption of spirits accompanying it, or simply to faster driving on emptier and apparently safer roads remains to be seen.

The 781 casualties occurring during this year were made up as follows: 241 passengers, 291 drivers and 249 pedestrians with 5, 10 and 9 fatalities respectively. But, whilst pedestrians were more frequently injured in the under 10 and over 60 age groups, drivers figure more frequently in the 11-60 groups. The 11-20

Fig. 3



**Incidence of injuries from 1961 to 1967**

Total number	—————
Slight injuries	- - - -
Grievous	- - - -
Fatal injuries	. . . . .

groups are intentionally included in the driver section so as to include a fair number of cyclists, an unknown number of unauthorised drivers, and all those individuals who have just obtained their driving licence, as these three classes contribute a good number of both accidents and injuries (Table 1).

The distribution of injuries by age groups among passengers, drivers and pedestrians, expressed as a percentage of total injuries, is shown in the accompanying table (Fig. 5).

On the whole this may be said to follow closely what happens in most other

places. In one respect however, it will be seen that the pattern differs radically. Everywhere, except in Singapore, (W.H.O. Chronicle 1968) the road death rate has risen considerably, and in at least 15 other countries it has more than doubled itself. Here it has remained at a consistently low level, in spite of the much bigger number of cars on the road.

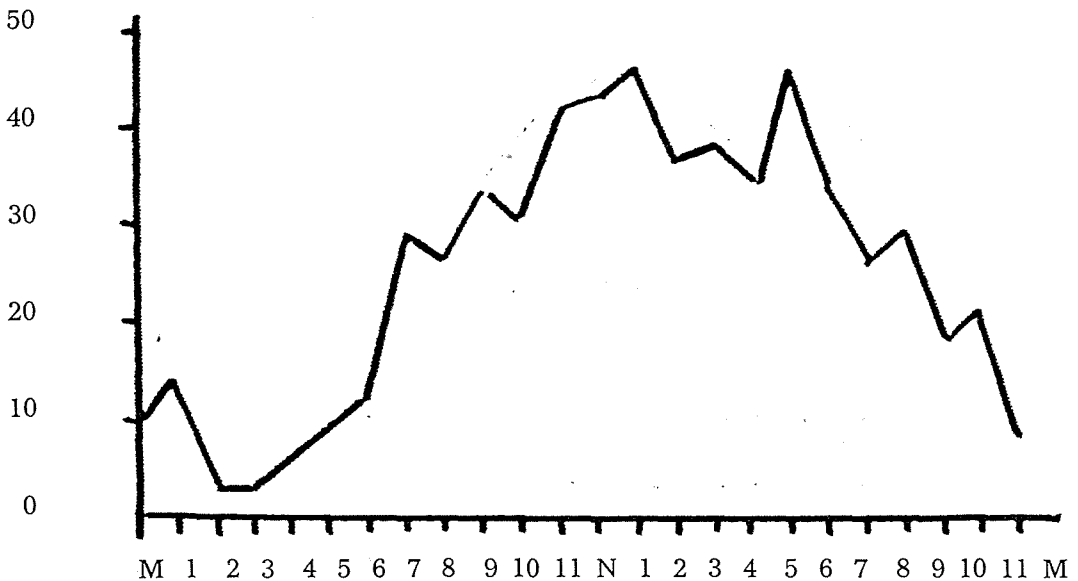
**Table 1**  
**Traffic injuries by age group**

Age Group	Passengers		Drivers		Pedestrians	
	Total	Fatal	Total	Fatal	Total	Fatal
0-10	15	-	3	-	99	3
11-20	72	3	39	2	54	-
21-30	83	2	111	5	21	-
31-40	31	-	37	1	11	-
41-50	19	-	28	1	10	1
51-60	14	-	16	-	16	2
61-70	2	-	6	1	20	1
71-	2	-	1	-	18	2
	<u>241</u>	<u>5</u>	<u>291</u>	<u>10</u>	<u>249</u>	<u>9</u>

Two factors, one topographical, and the other meteorological, probably account for this relative immunity.

Roads like ours, with their short straight stretches, frequent intersections and a turning just ahead do not allow any really high speed. Certainly, they can be a trap for the unwary, or for the driver unfamiliar with the locality; equally certainly accidents do happen through injudicious driving, but only occasionally are these accidents of any serious entity and, more often than not, one gets away with a bad shaking and a dented car. Moreover, because of these short distances, there is no such thing as long distance travel; and, except for buses, heavy duty traffic is practically non-existent after sun-down. The result is that rarely, if ever, does one come across an accident which can be ascribed to either mental or physical fatigue. We have no snow and no fog, and rain is too rare a commodity to interfere with safe driving. One is even tempted to say that our greatest meteorological hazard seems to be the mildness of the climate which allows the streets to be used as a playing ground by

Fig. 4



**Distribution during the 24 hours of the 602 Injury-causing accidents which occurred in 1967.**

children.

And yet, in spite of these natural advantages, and in spite of the undoubted improvement of our roads together with the adoption of other protective measures, accidents are still happening, and people are still being injured with disquieting frequency. The truth is that we are not prepared for the traffic that there is on our roads. It has come upon us so suddenly and increased so rapidly that it has found us unprepared for it, not only without any of the protective measures that have grown up with it elsewhere, but, worse still, with a public that neither realizes the danger that these new conditions have created, nor appreciates the usefulness of the measures that have been taken for its protection. Without the cooperation of the public this is a problem that cannot be solved, as it is man who is the determining factor in any one accident. Time, place and circumstance certainly contribute their share; chance takes a hand in bringing them together, but it is man himself, whether driver or pedestrian, who determines the matter.

And, more often than not, either through selfishness or carelessness.

Officially, 31 different causes of accidents are recognised, and a look through this list (Fig. 6) will show that most accidents can be ascribed to either one or the other attitude. Unfortunately, however, because of the vagueness and ambiguity of the descriptions given it does not go much beyond this, and is quite insufficient as a guide as to why and how accidents do happen in Malta. One particular term is however to be deplored as it is of serious import: attributing an accident to "driving in a drunken state" implies that the role of alcohol as a contributory cause of accidents is not fully appreciated, and that it is not realized that drink starts affecting driving capacity adversely much before it starts showing its effect as manifest drunkenness.

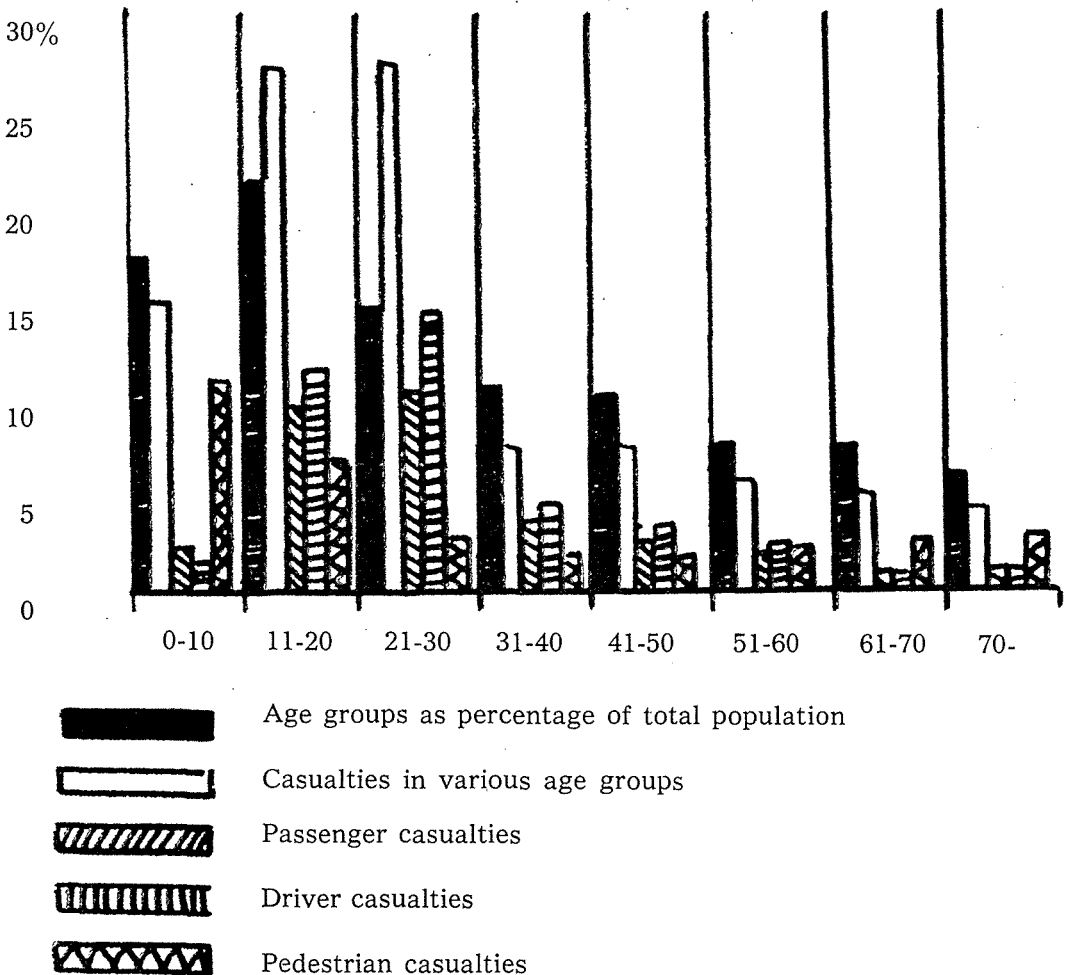
It would not be amiss here to point out the inadequacy in general of the available traffic statistics, which deprives us of much useful information. For their proper evaluation the crude figures given should be broken down further. It is also

important to know the exact site where accidents have happened, preferably indicating it on an appropriate accident map, and not contenting ourselves with the present anachronistic division of the Island in urban, suburban and rural districts. As things are today, very few localities are left that can be truly called rural, and with the amount of building that is going on all over the place they will become even more difficult to find, and this will undoubtedly influence the future accident rate. Nothing so ambitious as a research centre is being envisaged, but an earnest plea (which is the only justification for the foregoing remarks) is being made for

fuller and more informative statistics, as without them no real progress is to be expected. There can be no doubt that, even from an economical point of view, such an expense will, in the long run, prove to be a good investment.

As has been pointed out this list, in spite of its deficiencies, does show that an element of human error is to be found in every accident. The natural inference is that although road improvement and all other traffic control devices are necessary and should form an integral part of any scheme for the prevention of accidents they are by themselves insufficient to bring about a radical improvement as

**Fig. 5**  
**Distribution, by age groups, of injuries among passengers, drivers and pedestrians expressed as percentage of "total casualties".**



**Fig. 6**  
**Causes of Road Accidents**

(from the Quarterly Digest of Statistics)

Accidental  
 Animal running astray/bolting  
 Boarding vehicle in motion  
 Brakes, failure to apply  
 Collision  
 Driving: wrong side of the road  
       middle of the road  
       too close to other vehicles  
       in drunken state  
       dangerously  
       negligently  
       excessive speed  
 Dazzled by lights/sun  
 Falling from vehicle  
 Fire in vehicle  
 Heedless of traffic  
 Horn, failure to sound  
 Lights, vehicle without lights  
 Losing control of vehicle  
 Mechanical defects  
 Misjudgement  
 Narrowness of road  
 Obstruction  
 One way traffic rule  
 Overtaking  
 Overturning  
 Reversing  
 Signals, failure to obey  
 Skidding  
 Swerving  
 Traffic block.

"it is quite useless putting them into operation, unless the people who are going to use them are trained to understand, to read them and to operate them successfully" (Priestley).

Educating the public is at least equally necessary, and should proceed *pari passu* with the other measures adopted.

Propaganda of the right sort, instructing in the proper use of the road, showing the need of greater cautiousness and more courtesy and, at the same time, stressing the moral and civic responsibility of road users is certainly a step in the right direction and should be utilized to its fullest possible extent, but it is not enough. To be really effective it should be directed to the child who is still in his formative years,

as by the time an individual has reached the age entitling him to a driving licence he has already become set in his habits and ways of thinking, and is hardly likely to be much influenced by any sort of propaganda. It should aim at educating and not merely instructing, teaching the rules of the road and the more technical aspects of road safety at the same time that it instils the need of self-discipline and respect for others, thus giving the child a basic foundation upon which to build that traffic mindedness which is the surest safeguard on the road. Nor should it be haphazard and left in the hands of the first comer, but it should be entrusted to people who know what they are saying, and know how to say it.

In the meantime, to reduce this wastage of lives, time and money, stricter enforcement measures are to be adopted against the two sections of the population more directly involved, the driver and the pedestrian.

Pedestrians accounted for 249 casualties in 1967. Of these 99 were children under ten years of age as against 38 individuals over sixty. This large number of child victims, 39% of all pedestrian casualties, is a phenomenon that is partly sociological and partly environmental in character. Wiener (1967) considers the child as being "not a true pedestrian, but an undersupervised individual", and disrupted homes and economic necessity are given as the main reason for this lack of supervision. With us, however, it is to be found in the largeness of our families and the smallness of the houses, with the consequent overflowing of the children, even toddlers, into the street. Up to a certain point, this should make the solution easier to find, and the provision of communal playing fields should go a long way in getting many children out of harm's way. Unfortunately however, lack of space and lack of funds are difficult obstacles to overcome, and it is only through high level cooperation that such an objective can be attained. Here again, both effort and expense would be more than justified if even one accident is prevented, and only one life is saved.

The older pedestrians present an altogether different problem. The child most often becomes a victim because he is not aware of the danger; the adults and the elderly because they ignore it. It seems as if, in assuming the role of a pedestrian, a person refuses to realize the danger of challenging the motor car in its own domain, and, perhaps because of distraction or mere bravado on the part of the adult, or just because of simple failure to adapt himself to present day conditions in the case of the elderly pedestrian, he will try to cross the road with all the cards set against him "heedless of traffic signs and enforcement symbols'.

Wiener's dictum that "there is no notion more fanciful than trying to enforce pedestrian traffic control" applies with particular force here. In fact out of the 249 pedestrian casualties mentioned fully 166 were, on *prima facie* evidence, considered to be attributable to some act done by the pedestrian himself (Table 2). It is true that 103 of these cases occurred in children under fifteen, but the fact remains that, in something like 13% of pedestrians injured, the adult pedestrian has himself taken an active part in bringing about the accident. It may be that he would become more careful if he were made to share with the driver not only the responsibility for the accident, but also the penalty for his transgression, and thus be made to realize that, besides the right to use the road, he has also the duty to use it properly with due regard to his own safety and that of others.

Table 2

**Pedestrian casualties considered attributable to the pedestrians themselves**

Age group	Number	Percentage of	
		total casualties	pedestrians casualties
0-15	103	13.1	41.3
16-50	27	3.4	10.8
50-	36	4.5	14.6
	166	21.0	66.7

This, however, should not be taken to mean that the responsibility of the driver is thereby lessened. It still remains the greater of the two, because a great deal depends on him as a driver. The car is a potentially lethal weapon, and as such should be handled with great care; and yet it is quite often used not only with unjustifiable levity, but with a total disregard of its dangerous qualities. This is probably why driver casualties are much commoner among younger individuals, as those character traits which influence adversely a person's aptitude for driving have not yet been tempered by experience. Tests have been devised to identify in an individual such traits, thus enabling us to sort out a class of what may be called "unsafe drivers", and it has been suggested that such persons should not be allowed to drive. Apart from the fact that we are not in the position to carry out such a suggestion, one wonders how far it is justifiable to withhold, on purely hypothetical and still debatable grounds, a licence because of an accident that has not yet happened, but may happen at some future unknown date.

It would be more reasonable, and certainly more consonant with economic considerations to try achieving a greater degree of security through a greater amount of control, by being more stringent in the issuing of licences in the first place, and adopting more effective sanctions thereafter.

Driving tests should be severer, more driving ability being required than is at present considered adequate; the compilation of a standardized set of rules of the road suitable to present day conditions is desirable, and a good working knowledge of these rules should be made compulsory for obtaining a driving licence, at the same time raising the age at which a person is authorized to drive heavy duty vehicles and public service transport.

The withdrawal of licences should be resorted to more frequently particularly in accidents involving personal injury, and the imposition of fines, which has no deterrent effect whatsoever on such cases,

be limited to ordinary contraventions. At best, no type of sanction can have a deterrent effect as an accident is an event that happens against one's will, but the possibility that his licence may be withdrawn may instil in the driver that degree of cautiousness which will prevent the accident from happening. Naturally, the period of suspension should vary with the gravity of the occurrence, but cases of gross negligence, as well as frequent and repeated transgressions, showing a wilful disregard of regulations, are to be treated with a greater severity, whilst actual imprisonment should be imposed on all those cases where appropriate tests indicate that drink has been a contributory factor in the causation of the accident.

To sum up therefore, it would seem that whilst the congestion on our roads is the main cause of the majority of these accidents, lack of appreciation of the rules of the road is an important contributory factor, whilst the low grievous injury and mortality rates are more likely attributable to the topographical and meteorological conditions mentioned. The administrative measures outlined are meant to control the situation temporarily;

but, for the effective prevention of these happenings reliance is to be placed on two equally important measures: first, the separation as far as possible of driver and pedestrian; and secondly the education of children from an early age. Finally, the plea for fuller and more informative statistics is again made with the greatest possible earnestness, as it is only through them that we can know whether the measures adopted are bearing fruit and whether we are going in the right direction.

I wish to thank the Commissioner of Police for allowing me the use of his records; Dr. Franz. Saliba for his help in collecting the data for 1967; and Dr. Jos. L. Grech for his invaluable advice.

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