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Road accidents in Poland in the years 2006 - 2015

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ABSTRACT

In comparison with previous years it can be seen that the number of accidents decreases. According to statistics from the National Police Headquarters on Polish roads in 2005, 39 730 accidents caused the driver, while 7 119 pedestrians. While in 2004 the fault of the drivers was 41 605 cases and the fault of the pedestrian 8 041.

Keywords: road accident, collision, causes of accidents

1. INTRODUCTION

With the development of the automotive industry there is a problem of road accidents. In the nineteenth century, motor racing was very popular. [1] There are no legal rules governing the movement, unpredictability drivers, speeding cars, the low level of security, the lack of streets adapted to motor vehicle traffic, as well as the lack of caution pedestrians and supporters contributed to the first victims of car accidents.[2]

The world's first steam-powered vehicle designed and built in 1796 by Nicolas - Joseph Cugnot. Hitting the wall he caused the first accident. [3]

Most likely, the first fatal victim was a pedestrian who was hit by a driver in 1895 in New York. [4] In contrast, the first recorded fatality as a result of a car accident in Europe was a woman who tried to run in front of the car. [5]

Currently, issues of accidents are among the most important problems of public safety policy. [6] The most common accident victims are elderly, children and pedestrians. [7] On average, a traffic accident occurs approximately every 50 seconds, every 2 seconds and carries on for another injury. Every year on the road killed nearly one million people, children and adults. A dozen or so million are injured. [8]

According to data included by the World Health Organization in 2020, the number of deaths in road accidents could rise to 2 million.

In Poland, both cyclists, pedestrians and moped are a large group of victims of road accidents. [9] The most common deductions foot end in death or serious personal injury. [10] As a rule, injuries are more severe in children than in adults. [11] Despite the fact that older people have much greater difficulty in rehabilitation, and less likely to return to full fitness. The driver, who will reduce his speed by 1 km / h contributes to the reduction of accidents by 3%. 45% chance of surviving a pedestrian who was hit with a speed of 50 km / h and a 15% chance of a pedestrian hit at 60 km / h. [12]

2. DIFFERENCE BETWEEN THE COLLISION AND ROAD ACCIDENT – PROPER HANDLING ON SITE EVENTS

Faced with the event by road, we use the two terms such as collision and road accident. In fact, it would appear that these concepts do not differ from each other. [13] However, the difference in maintaining on-site collision and the accident is definitely different. [14]

Road accident is an incident on the road, in which one or more co-participants of traffic involved in the incident, as a result of which the person has been injured or died. [15]

Collision road is a colloquial term. Its application is accepted by the insurance authorities, judicial, police and all participants of traffic. [16] Generally speaking, a collision is an unintentional breach of existing safety regulations, resulting in the formation material damage. [17]

Table 1. The proceedings in the case of collisions and traffic accident

ROAD COLLISION (no dead and wounded people)	ROAD ACCIDENT (is / are injured or killed people)
Secure the scene	Secure the scene
If the vehicle is in an area threatens the safety of other persons, remove it from the scene	Do not remove the vehicle from the scene
If there are no objections to the perpetrator of the event just write down a statement, you do not need to call the police, unless one of the drivers is intoxicated	Rate the number of wounded and their injuries, call the police, ambulance and fire brigade

If you can do with your phone / camera photos of damaged vehicles and photographs of the accident site	If possible, the victim gave first aid
	Protect traces before their destruction
	Write down the data of witnesses
	If you can do with your phone / camera photos of damaged vehicles and photographs of the accident site

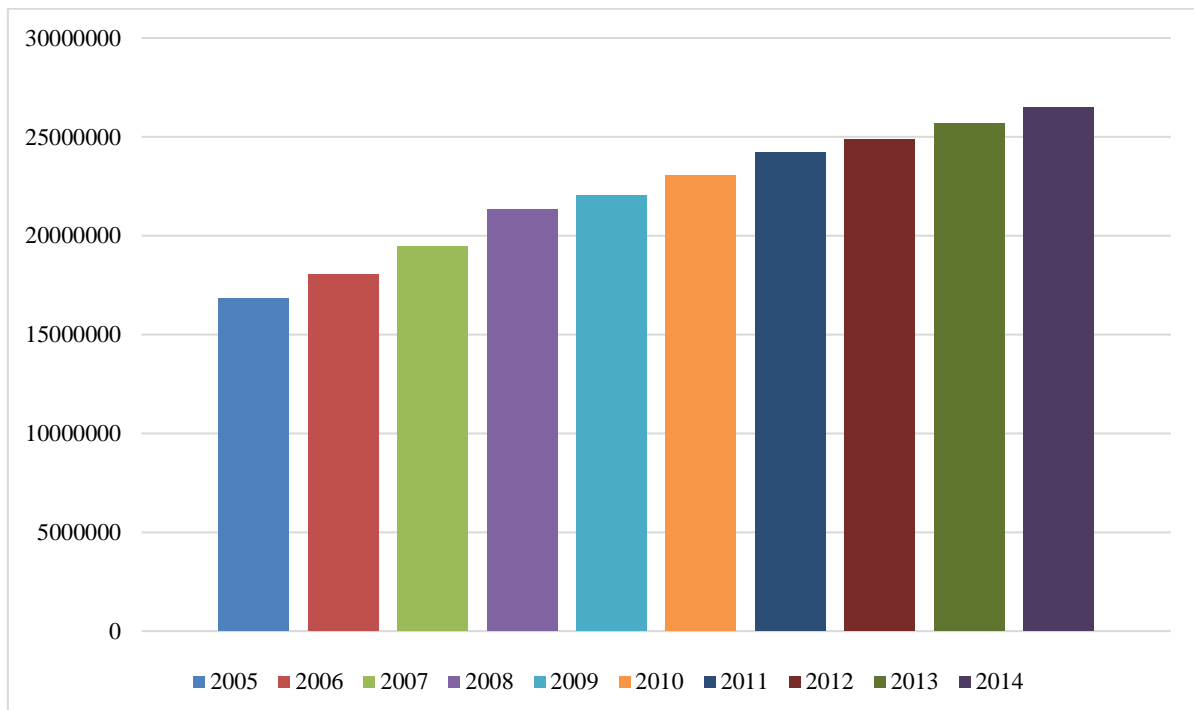
Source: Own elaboration.

3. COMMON CAUSES OF ACCIDENTS AND STATISTICS OF ROAD ACCIDENTS IN POLAND IN THE YEARS 2006 – 2015

The number of vehicles registered in Poland is growing steadily since the early nineties. This situation is illustrated in the graph chart number 1 and number 2.

In 2005, registered 16 815 923 motor vehicles. In 2010 came the 6 221 226 units. From year to year the number of vehicles increased, and thus in 2014 recorded their 26 472 274.

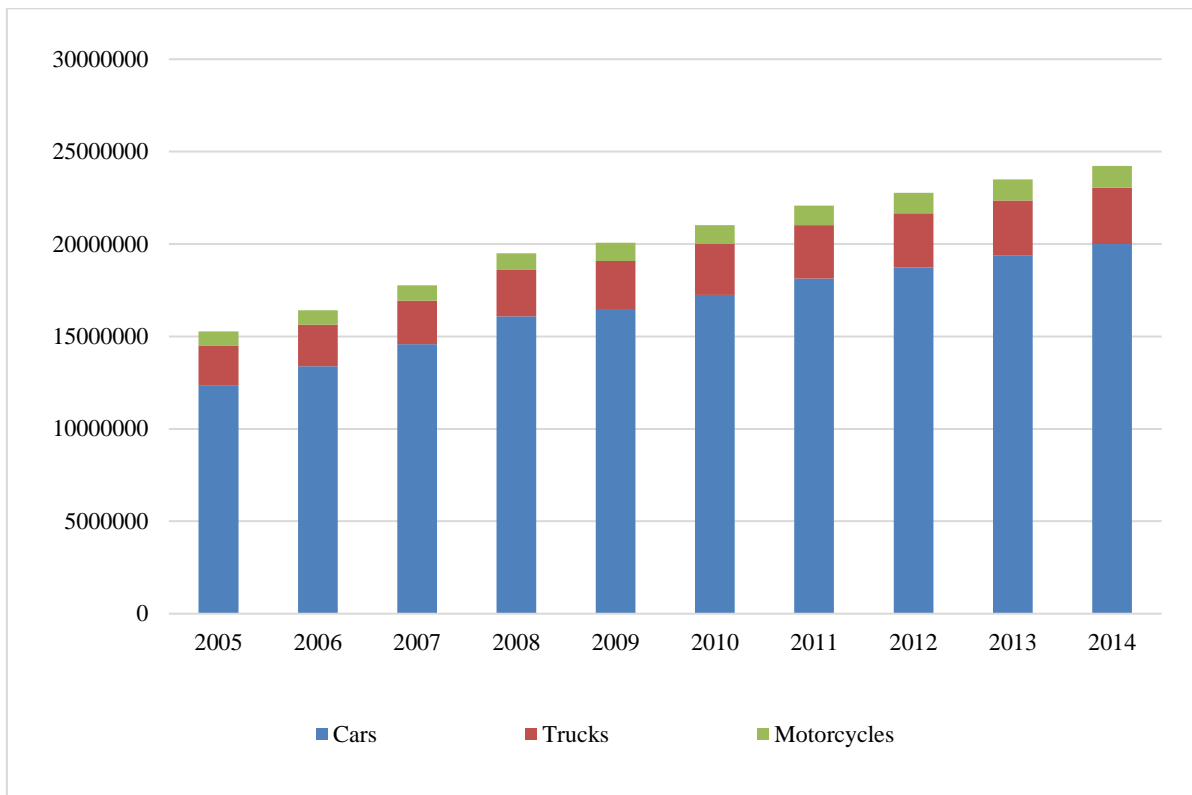
Chart 1. Motor vehicles in the years 2005 – 2014.



Source: Own elaboration based on Central Statistical Office of Poland

For comparison, in 2005 there were registered 12 339 353 cars, 2 177 901 753 trucks and 648 motorcycles. By contrast, in 2014 passenger cars was 26 472 274, trucks 3 037 427 and 1 189 527 motorcycles.

Chart 2. The number of motor vehicles in the years 2005 - 2014



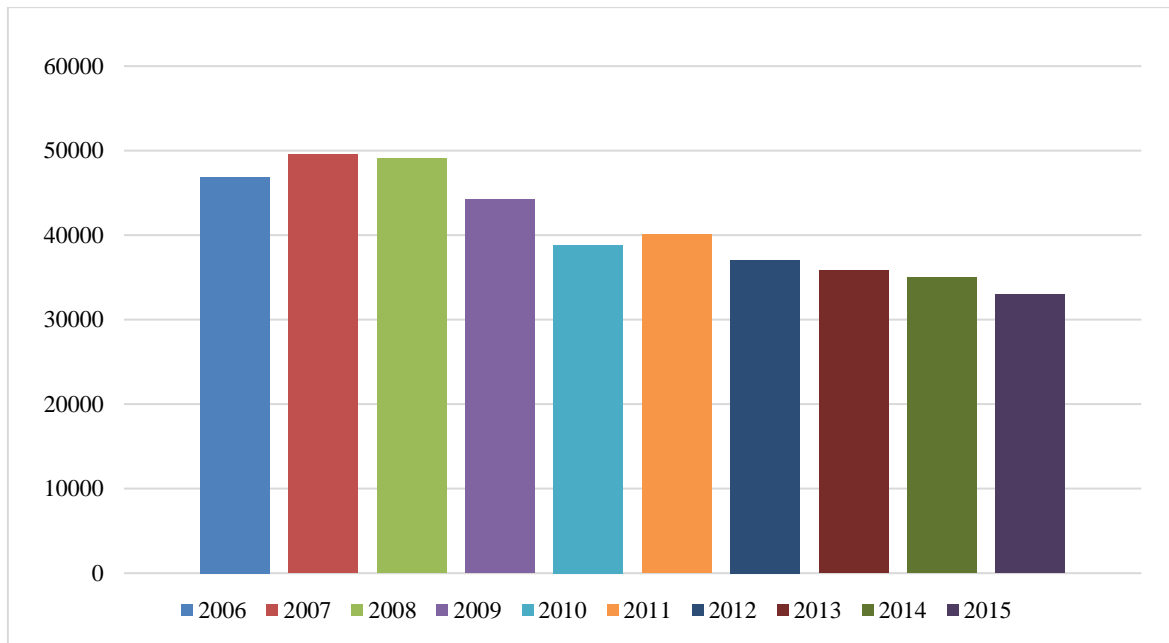
Source: Own elaboration based on Central Statistical Office of Poland

According to police statistics, the most common cause of accidents is the lack of adaptation speed to the circumstances on the road. For the second reason given priority Not yielding both on the road peers and subordinates. One of the most dangerous action on the road to overtake. To further the causes of accidents include driving on the wrong side of the road, improper overtaking, bypass, at a red light, improper maneuvering in crossings, incorrect rewind, Not yielding to pedestrians, sudden braking, not keeping a safe distance between vehicles, sleep and fatigue.

In 2006 Poland recorded 46 876 accidents. In 2008, 49 054 accidents, while in 2010 there were 38 832. In 2012 the number of accidents fell to 37 046, and in 2015 was 32 967 accidents.

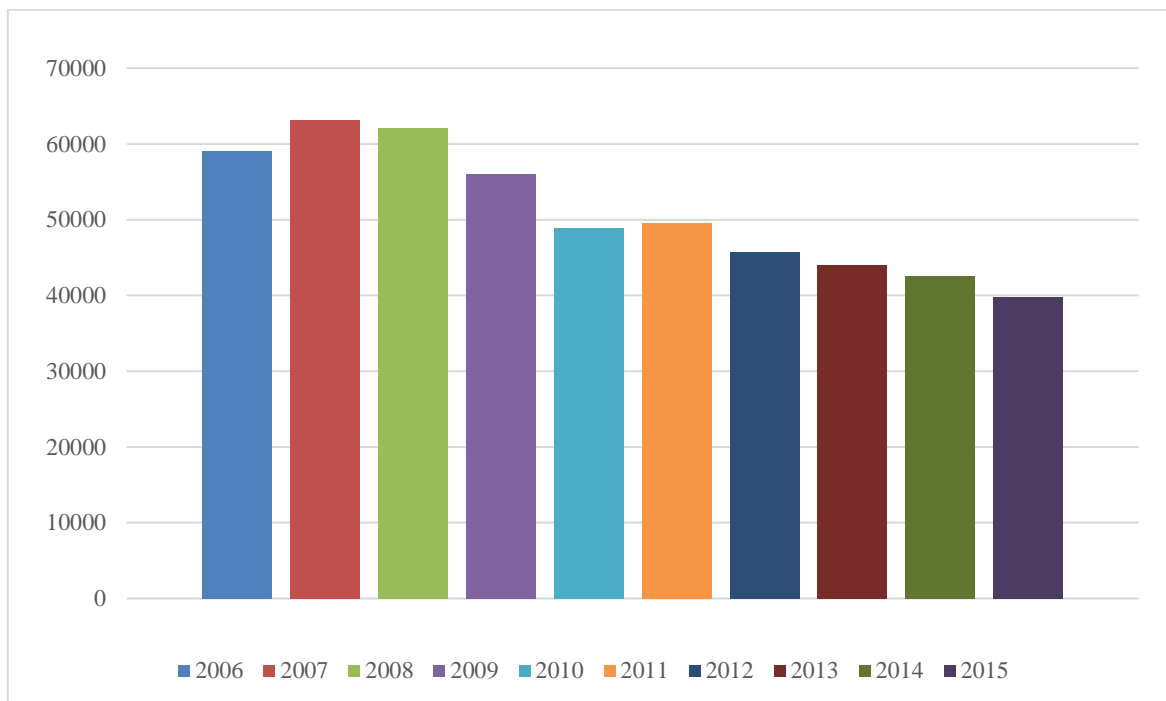
In 2006, as a result of road accidents recorded 59 123 injured people. Four years later, the number had fallen to 48 952 people, and in 2015 in Poland was recorded 39 788 injured people. Most people killed in road accidents were recorded in 2007 - 5 583 people. In 2010, killed on Polish roads there were 3 907 people, and in 2015, the number of people killed was 2 938 people.

Chart 3. The number of road accidents in the years 2006 -2015



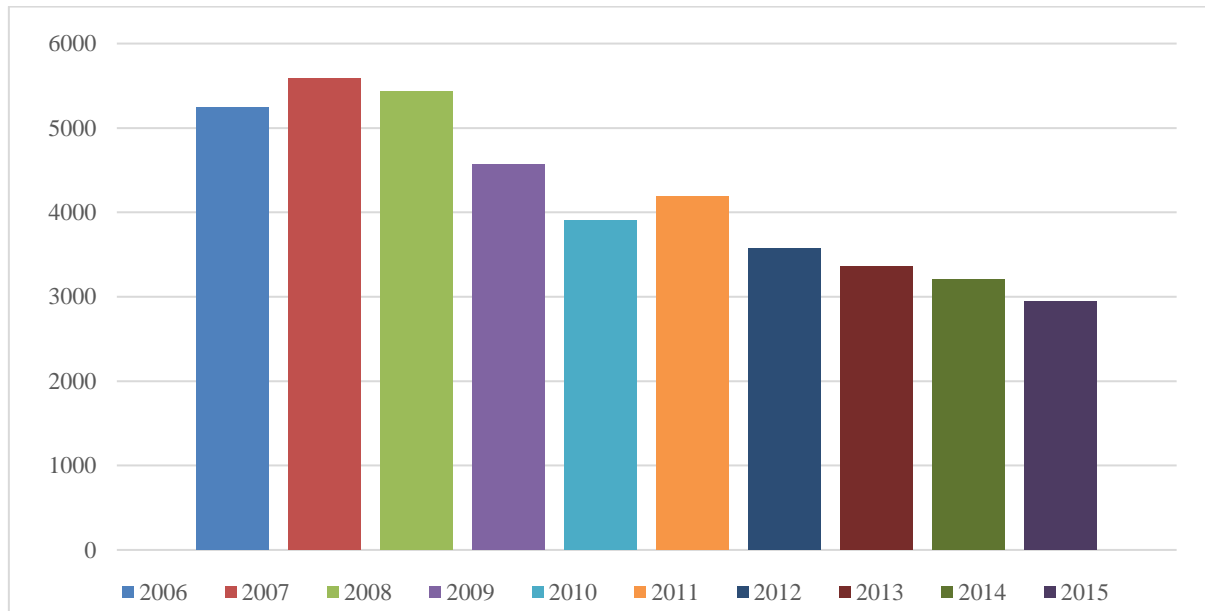
Source: Own elaboration based on Central Statistical Office of Poland

Chart 4. Injured in road accidents in the years 2006 – 2015



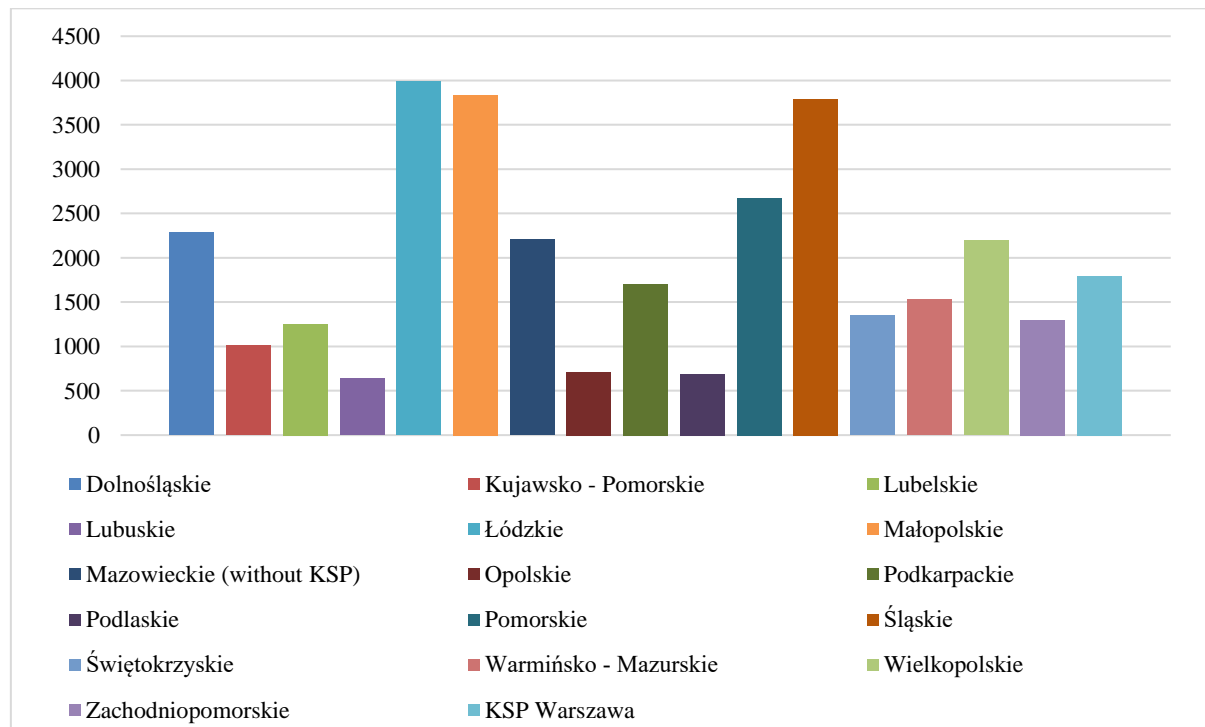
Source: Own elaboration based on Central Statistical Office of Poland

Chart 5. Killed in road accidents in the years 2006 – 2015



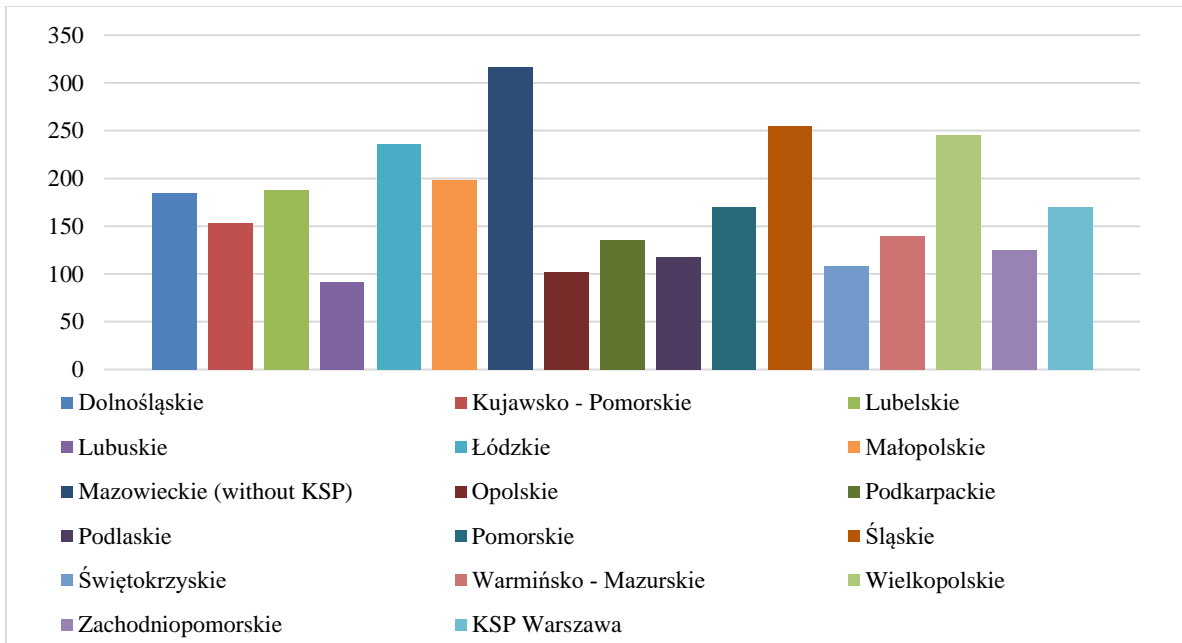
Source: Own elaboration based on Central Statistical Office of Poland

Chart 6. The number of road accidents in various provinces in 2014



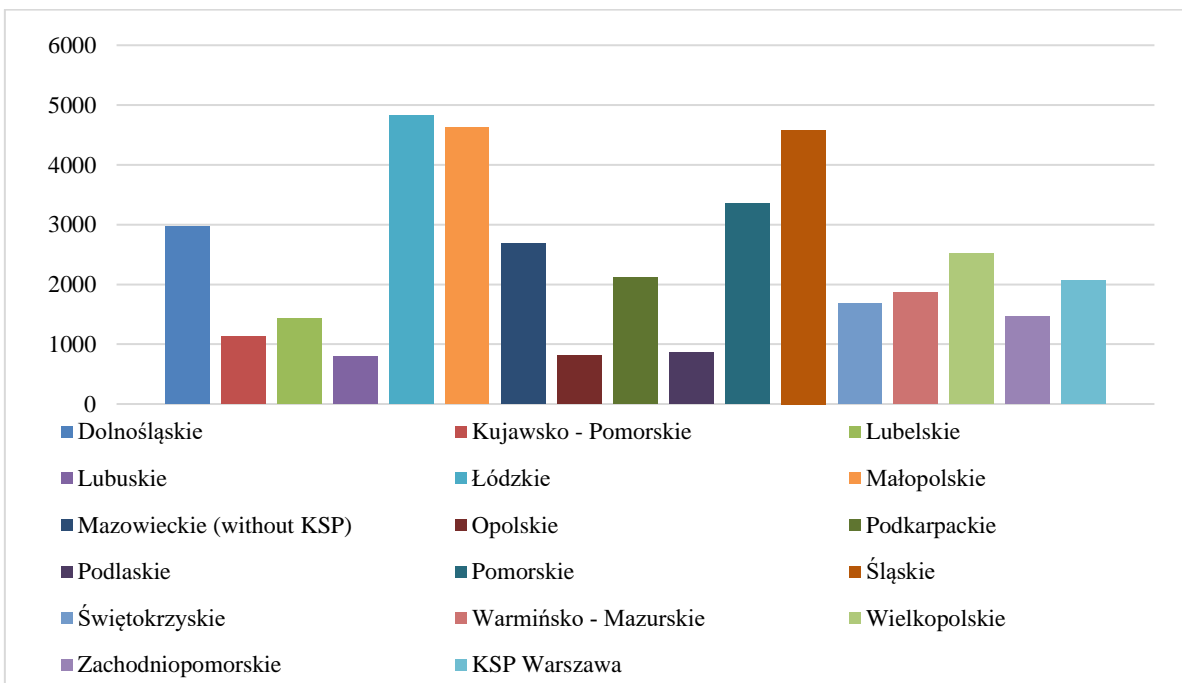
Source: Own elaboration based on Central Statistical Office of Poland

Chart 7. The number of people killed in road accidents in various provinces in 2014



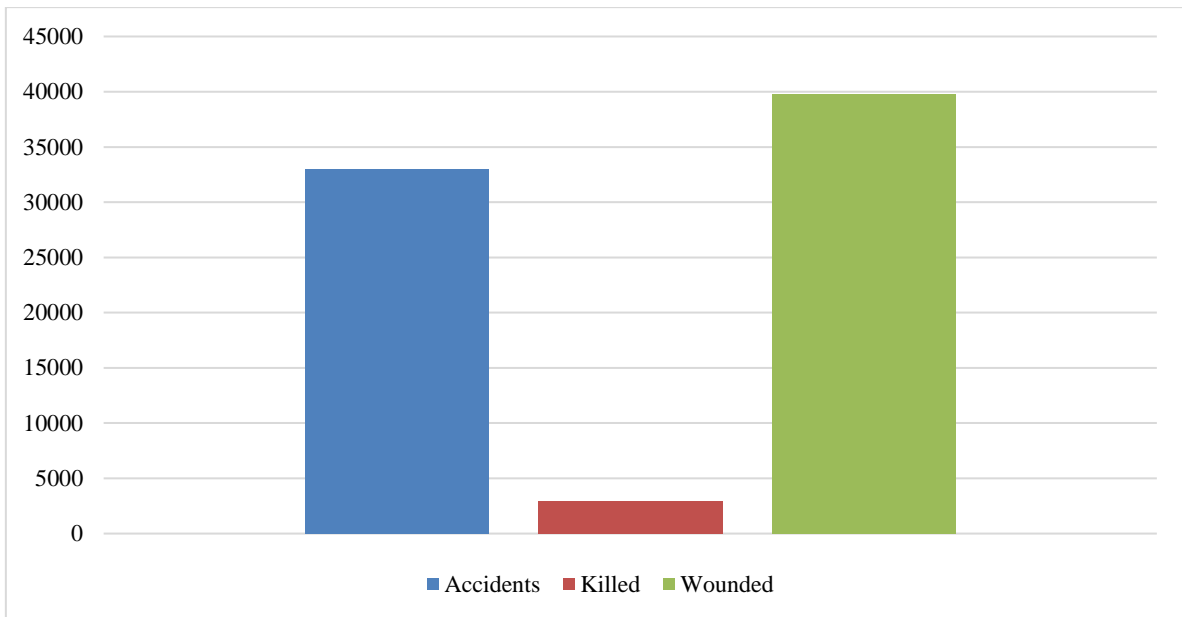
Source: Own elaboration based on Central Statistical Office of Poland

Chart 8. The number of people injured in road accidents in various provinces in 2014



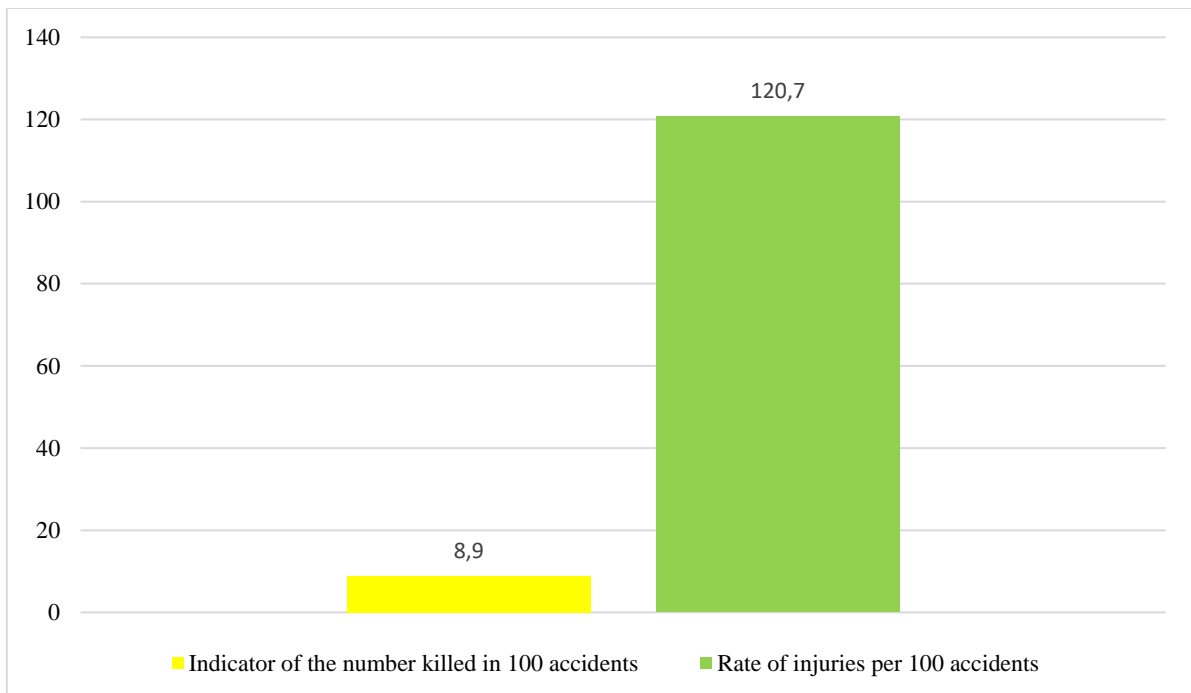
Source: Own elaboration based on Central Statistical Office of Poland

Chart 9. Number of accidents, killed and injured persons in 2014 - Poland Total



Source: Own elaboration based on Central Statistical Office of Poland

Chart 10. Indicator of the number of dead and wounded - Poland total in 2014



Source: Own elaboration based on Central Statistical Office of Poland

The largest number of accidents in 2014 occurred in the province of Lodz - 3 991, Malopolska - 3 839 and Silesia - 3 792. The lowest number of accidents recorded in the region Lubuskie - 639, Podlasie - 690 and in the province of Opole - 710

In 2014, as a result of road accidents in the province Mazowiecki (without KSP) killed 317 people in the province of Silesia 255 people, while in the province Wielkopolska 245 people. For comparison, in the province Lubuskim killed 92 people.

In total, in 2014 in Poland there has been a 32 967 accidents. Were killed 2 938 people and injured 39 778 people.

For comparison purposes, assumed rate of injuries and deaths per 100 accidents.

We should take into account differences among the provinces in the area, population, traffic density, or in other conditions.

Table 2. Indicator of the number of killed and wounded

Voivodeship	Accidents	Wounde	Killed	Rate of injuries per 100 accidents	Indicator of the number killed in 100 accidents
Dolnośląskie	2 280	2 968	185	130,2	8,1
Kujawsko - pomorskie	1 008	1 135	153	112,6	15,2
Lubelskie	1 252	1 436	188	114,7	15,0
Lubuskie	639	786	92	123,0	14,4
Łódzkie	3 991	4 826	236	120,9	5,9
Małopolskie	3 839	4 619	198	120,3	5,2
Mazowieckie (without KSP)	2 211	2 679	317	121,2	14,3
Opolskie	710	808	102	113,8	14,4
Podkarpackie	1 703	2 120	136	124,5	8,0
Podlaskie	690	864	118	125,2	17,1
Pomorskie	2 675	3 347	170	125,1	6,4
Śląskie	3 792	4 584	255	120,9	6,7
Świętokrzyskie	1 353	1 676	108	123,9	8,0
Warmińsko - mazurskie	1 535	1 869	140	121,8	9,1
Wielkopolskie	2 196	2 523	245	114,9	11,2
Zachodniopomorskie	1 298	1 470	125	113,3	9,6
KSP	1 795	2 068	170	115,2	9,5

Source: Own elaboration based on Central Statistical Office of Poland

4. CONCLUSIONS

One of the basic factors of all injuries are traffic accidents. [18] They believed to be the third cause of death in the world. [19] As a result of road traffic accidents often occur to multiple organ and numerous injuries in different places.

The location and extent of injury depends mainly on the type of collision. It depends on whether it was a rollover, side impact, hitting the car turning in a horizontal plane or a blow to the back of the vehicle. The injury is also dependent on the size of the energy absorbed by the wounded, and from this, in what part of the car struck. [20,21].

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