

27 July, 2017



ROAD ACCIDENTS

Year 2016

■ In 2016, 175,791 road accidents occurred in Italy resulting in death or injury with 3,283 deaths (within 30 days) and 249,175 injured.

After two years of stagnation, the number of deaths decreased again, compared to 2015 (-145 units, - 4.2%).

■ Among the victims, the number of cyclists (275, + 9.6%) and mopeds users (116, + 10.5%) increased, the passenger cars users (1.470, + 0.1%) were stable, while motorcyclists (657, -15.0%) and pedestrians (570, - 5.3%) showed a decrease.

■ For the first time since 2001, accidents and injuries recorded an increase, respectively, equal to+ 0.7% and + 0.9%, (Figure 1). Generally serious injuries, based on hospital discharge data, increased the number in 2016, over 17,000 compared to 16,000 in 2015 (+ 9%). The ratio between serious injuries and deaths rose to 5.2 in 2016, from 4.7 in the previous year.

■ The decline in the number of casualties in Italy is mainly due to the decrease on motorways (including ring roads and motorways junctions) and rural roads (274 and 1,546 deaths, -10.2 and -4.6% over the previous year). A smaller decrease is noted on urban roads (1,463 dead; -2.6%). Significant decreases are detected for the main municipalities, all in total, for which the number of deaths, in the built up area, decreased by 6.5%.

■ Even in the EU28, in 2016, the number of road accidents victims came back to decrease (-1.8% compared to 2015): 25,720 against 26,190 in 2015. Between 2016 and 2010 (benchmark year for the European Road Safety Strategy), deaths decreased by 18.6% at European level. Italy recorded a reduction of 20.2%, a better result than the European average. Every million inhabitants, in 2016, 50.6 deaths due to road accident in the EU28 were counted and 54.2 in Italy, which is ranked 14th in the European classification, behind Sweden, UK, Spain, Germany and France.

Among the most frequent misbehaviors were distraction, failure to observe precedence rules and high speed (41.5% in total). The most sanctioned violations of the Road Code were, in fact, speed excess, failures to use safety devices and the use of mobile phone driving.

■ The year 2015 was characterised by a recovery of mobility; the new registrations increased by 18.2% compared to the previous year, the car fleet was 1.4%. Motorway journeys also increased by 3.3% in respect of 2015, with over 82 billion kilometres travelled.

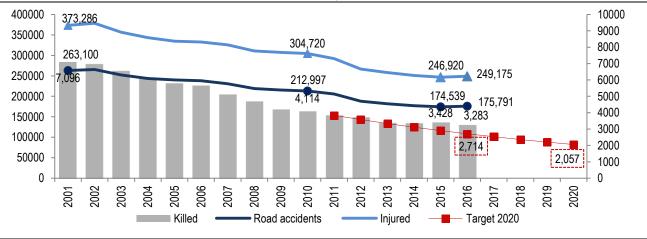


CHART 1. ROAD ACCIDENTS RESULTING IN DEATH OR INJURY, KILLED AND INURED. Years 2001-2016. Absolute values

Well ahead of the traditional dissemination timing, Istat spreads the final data on road accidents, with reference to the previous year, for the first time in July. The change of the road traffic data dissemination timetable, linked to increased timeliness, aims to support the planning of adequate road safety interventions, just on the eve of the increasing of summer mobility.

This result was achieved thanks to an ongoing effort to improve the guality and timeliness in the dissemination of information, which involves ACI (Automobile Club d'Italia) as a partner, the Road Police, Carabinieri (special military body), Local Police, Statistical offices, Municipalities, Provinces, Autonomous Provinces and Regions which agreed to a Memorandum of Understanding for the national coordination of activities related to the statistical road accident survey.

Victims on Italian roads come back to decrease, but the number of accidents grows

In 2016, 175,791 road accidents resulting in death or injury¹ occurred in Italy; the victims were 3,283 and the injured 249,175 (Table 1). The number of deaths came back to decline, compared to the last year (-4.2%), after two-years of stagnation, while accidents and injuries slightly increased (+ 0.7% and + 0.9% respectively). The road mortality rate decreased from 55.6 to 54.2 deaths per million inhabitants, between 2015 and 2016. Compared with 2010, road victims number declined by 20.2%.

TABLE 1. ROAD ACCIDENTS, KILLED AND INJURED PERSONS. Years 2001, 2010, 2014, 2015 and 2016. Absolute values, deaths per million and percentage change

YEARS	Road accidents (a)	Killed	Injured	Deaths per million inhabitants (b)	% change number of deaths in respect to the previous year (c)	•	% change number of deaths in respect to 2010 (c)
2001	263,100	7,096	373,286	124.5	-	-	-
2010	212,997	4,114	304,720	69.4	-2.9	-42.0	-
2014	177,031	3,381	251,147	55.6	-0.6	-52.4	-17.8
2015	174,539	3,428	246,920	56.3	+1.4	-51.7	-16.7
2016	175,791	3,283	249,175	54.2	-4.2	-53.7	-20.2

(a) Road accident resulting in deaths (within the 30th day) or injuries is defined as the event that involves at least a vehicle circulating on the national road net.

(a) Deaths out of resident population (per 1,000,000).

(c) The percentage changes of the number of deaths is calculated as: $((M^t/M^{t-1/o} 2001 \circ 2010) - 1)*100$

The slight increase of road accidents in 2016 is in a context of recovery of mobility, probably linked to a better general economic background, which shows an increase in average of income per capita (+ 1.5%), of the GDP (+0.9%) and the reduction in the average fuel price for all vehicles: -5.9% gasoline, -8.8% diesel, -8% GPL, -0.7% methane.

In 2016, the new vehicle registrations increased by 18.2%, mainly due to the sales of commercial and industrial vehicles, which led to a 2% growth in the fleet of goods vehicles. On average, the car fleet grew by 1.4%, in respect of the previous year. With more than 624 cars per thousand inhabitants, Italy is the European country with a higher motorization rate.

Data on motorway journeys, about 6 thousand kilometers roads network, showed an increase of 3.3%, compared to 2015, also in this case mainly linked to heavy vehicles trips increase (+ 3.7%) but also to light vehicles (+ 3.2%).

In general, the mobility framework in 2016 shows an increase in people mobility (from 80.3% to 83.6% of the population), even if the average length of travel decreased, the local mobility absorbed 70% out of total, in 2016. With regard the mode of transport, a growth of soft mobility and displacements on foot or by bicycle is detected – in total + 8.4% - while the car use in the city decreased, although it continued to be the preferred type of transport, representing more than the 80% of motorized displacements.

According to the estimates of the Ministry of Infrastructure and Transport², the total social cost of road accidents resulting in death or injury, using 2010 constant prices, amounted approximately to €17 billion euro in 2016, equal to 1,1% of the national GDP.



¹ For data referred to 2016, the survey was based on a Memorandum of Understanding signed with some regions and provinces for the collection and monitoring data activities. Signatory Regions, in 2016, are: Emilia-Romagna, Friuli-Venezia Giulia, Lombardia, Piemonte, Puglia, Toscana, Veneto, Liguria, Calabria and the autonomous provinces Bolzano-Bozen, Trento. ² Ministry of Infrastructure and Transport - Evaluation Study of Social Costs of road accidents. Year 2010.

Number of victims in the European Union goes back again in 2016

After two years of stagnation, in 2016, the number of victims in the EU28 decreased again. In total, 25,720 people died in road accidents, against 31,595 in 2010, with a drop of 18.6%. Significant the percentage decline in Italy (-20.2%). Between 2015 and 2016, the number of victims decreased by 1.8% in the European Union and by 4.2% in Italy.

Reduction at European level did not affect all countries. In 2016, road accidents victims were still rising in many countries, including Spain, the United Kingdom and Poland, countries with a weighty number of victims in absolute value. The road mortality rate, indicator used for a comparative analysis, in 2016, is equal to 50.6 in EU28 and 54.2 in Italy (62.8 and 69.4 respectively in 2010). With this result, our country is ranked 14th in the European ranking. The countries with the lowest mortality rate, although they showed, in 2016, a slight increase in the number of victims, were Sweden and the United Kingdom (27.4 and 28.7), while the last in rates ranking were Bulgaria and Romania (99.0 and 96.8 per million Inhabitants) (Table 2 and Chart 5). Between 2010 and 2016, the yearly percentage change in the number of road victims was 3.4% in the EU28 and 3.7% in Italy, however, lower than the estimated value (-6.7%) in order to reach the 2020 target set. In the period 2017-2020, the number of victims in the European Union and Italy, by now, should decrease by about

TABLE 2. KILLED PERSONS IN ROAD ACCIDENTS IN THE COUNTRIES OF THE EUROPEAN UNION (EU28).

EU28 Countries	A	osolute values		Percentage of	change (b)	Road mortality rate		
EU26 Countries	2010	2015	2016	2016/2015	2016/2010	2010	2016	
Austria	552	479	432	-9.8	-21.7	65.9	49.1	
Belgium*	841	732	640	-12.6	-23.9	77.6	56.8	
Bulgaria	776	708	708	-	-8.8	104.6	99	
Croatia	426	348	307	-11.8	-27.9	99	73.3	
Cyprus	60	57	46	-19.3	-23.3	73.2	54.2	
Czech Republic	802	737	611	-17.1	-23.8	76.7	57.9	
Denmark*	255	178	211	18.5	-17.3	46.1	37	
Estonia	79	67	71	6	-10.1	59.3	54	
Finland*	272	270	250	-7.4	-8.1	50.8	45.6	
France*	3,992	3,461	3,469	0.2	-13.1	61.7	53.5	
Germany*	3,651	3,459	3,214	-7.1	-12	44.6	39.1	
Greece*	1,258	793	807	1.8	-35.9	112.5	74.8	
Hungary*	740	644	597	-7.3	-19.3	73.9	60.7	
Ireland*	212	162	188	16	-11.3	46.6	39.5	
Italy	4,114	3,428	3,283	-4.2	-20.2	69.4	54.2	
Latvia	218	188	158	-16	-27.5	102.8	80.2	
Lithuania	299	242	188	-22.3	-37.1	95.2	65.1	
Luxembourg	32	36	32	-11.1	-	63.7	55.5	
Malta	15	11	22	100	46.7	36.2	50.6	
Poland	3,907	2,938	3,026	3	-22.5	102.4	78.7	
Portugal*	937	593	565	-4.7	-39.7	88.6	57.4	
Romania	2,377	1,893	1,913	1.1	-19.5	117.1	96.8	
Slovakia*	353	274	242	-11.7	-31.4	65.5	44.6	
Slovenia	138	120	130	8.3	-5.8	67.4	63	
Spain*	2,478	1,688	1,833	8.5	-26	53.3	39.5	
Sweden	266	259	270	4.2	1.5	28.5	27.4	
The Netherlands	640	620	629	1.5	-1.7	38.6	3	
United Kingdom*	1,905	1,804	1,878	4.1	-1.4	30.5	28.	
EU28	31,595	26,190	25,720	-1.8	-18.6	62.8	50.	

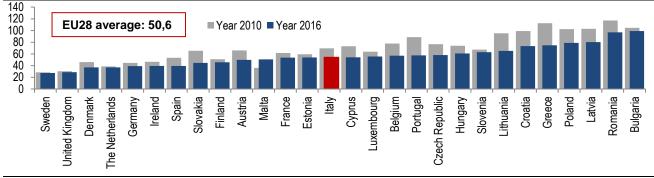
Years 2010, 2015 and 2016. Absolute values, percentage change and road mortality rate per 1,000,000 inhabitants (a)

* Preliminary estimates 2016: Belgium, Denmark, Estonia, Finland, France, Germany, Greece, Ireland, Portugal, United Kingdom, Slovakia, Spain, Hungary (a) Source: European Transport Safety Council, Annual PIN report. Year 2017 - <u>http://etsc.eu/11th-annual-road-safe ty-performance-index-pin-report-2/</u> European Commission CARE (Community Data Base on Road Accidents) - Brussels 28/3/2017 <u>http://europa.eu/rapid/press-release IP-17-674 it.htm</u> (b) The percentage changes of the number of deaths is calculated as: ((M²⁰¹⁶/M^{2015 or 2010})-1)*100.



11% every year within 2020.

CHART 2. ROAD MORTALITY RATE IN THE COUNTRIES OF THE EUROPEAN UNION (EU28) (a). Years 2010 and 2016



(a) Road mortality rate (deaths in road accidents per million inhabitants)

Source: European Transport Safety Council, Annual PIN report. Year 2017 - http://etsc.eu/11th-annual-road-safety-performance-index-pin-report-2/

Serious injured: still growing in 2016

The 2020 target set by the General Assembly of the United Nations and the European Commission is a further halving of the number of deaths in road accidents in Europe and globally, and the decrease of the serious injuries number. In compliance with the recent programs for road safety and the new 2020 targets, to establish new standards for an international and harmonized definition of serious injury was required.

The European Commission defined specific guidelines to classify the seriousness of injuries. The use of the existing scale of the trauma AIS (Abbreviated Injury Scale) ³ and, specifically, MAIS (Maximum Abbreviated Injury Scale) was proposed. According to the international recommendations, Italy calculated for 2016 the number of seriously injured in road accidents, using data based on hospital discharge records.

Following the international recommendations and creating synergies among other national organisations, Italy calculated the number of serious injuries in road accidents, based on the information on the Hospital Discharge (Ministry of Health). Italy represents one of the first EU countries which provided a consistent data on serious injuries in road accidents in Europe, using MAIS3 + classification.

The number of seriously injured in road accidents was more than 17,000, in 2016, up 9% from the previous year. During the period 2012-2016, the ratio between serious injuries and deaths progressively increased, passing from 3.5 injured for each death in 2012 to 5.3 in 2016.

In 2016, the serious injuries represented about 7% of the total injured noticed by Police. This percentage, which gradually increased over the last five years, was also linked to an improvement in quality and coverage of all injuries information among hospital discharge data.

There were still some differences, in 2016, at geographical level: the values of the ratio between serious injuries and deaths were between 4.9 in the Northern-Eastern Italy and 5.3 in the South (Table 3).

HOSPITAL	Year 2012		Year 2013		Year 2014		Year	2015	Year 2016	
DISCHARGE GEO-AREA	Absolute values	Serious injuries /deaths*								
North-west	3,107	3.3	3,025	3.8	3,555	4.5	3,625	4.4	3,842	5.2
North-east	3,028	3.3	2,725	3.5	2,737	3.4	2,963	3.8	3,932	5.0
Centre	2,776	3.5	2,532	3.4	3,542	4.6	3,963	5.1	4,259	5.8
South	2,609	3.3	3,076	4.3	3,402	4.8	3,695	5.3	3,833	5.3
Islands	1,592	4.9	1,541	4.1	1,707	5.6	1,655	4.9	1,458	4.9
Italy	13,112	3.5	12,899	3.8	14,943	4.4	15,901	4.7	17,324	5.3

TABLE 3. NUMBER OF SERIOUSLY INJURED IN ROAD ACCIDENTS AND RATIO BETWEEN SERIOUSLY INJURED AND KILLED IN ROAD ACCIDENTS, BY HOSPITAL DISCHARGE GEOGRAPHICAL AREA IN ITALY (a). Years 2012-2016

* Source: Ministry of Health - DG Health Planning - Hospital Discharge Data - Istat - Survey on Road accidents resulting in death or injury

(a) For each processed data year only the first hospital admission, for each inpatient, has been considered; the case selection includes the main and secondary diagnosis. All inpatients dead within 30 days after the hospital admission were excluded.

³ The AIS is a classification based on a scale to measure the injury severity by the body region interested and linked to the International Classification of Diseases ICD9-CM or ICD10. The injury severity is measured by a 6 levels scale. The serious injuries are identified by the score MAIS3+. Copyright Association for the Advancement of Automotive Medicine (AAAM).



Tables and charts collection:

CHART3. ROAD ACCIDENTS RESULTING IN DEATH OR INURY BY MONTH AND ROAD TYPE. YEAR 2016. Absolute ROAD TYPE. YEAR 2016. Absolute values (a) values (a)

CHART 4. KILLED IN ROAD ACCIDENTS BY MONTH AND

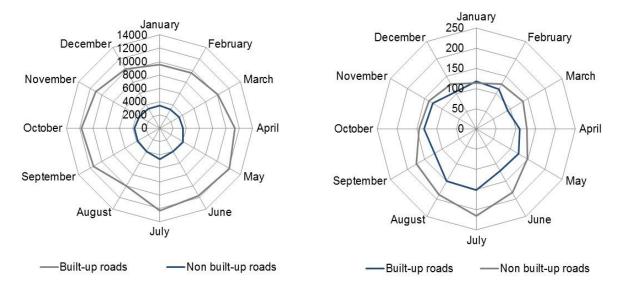


CHART 5. ROAD ACCIDENTS RESULTING IN DEATH OR INJURY AND KILLED BY MONTH. YEARS 2001-2016. Absolute values

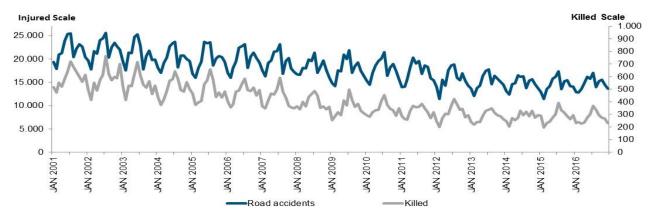


CHART 6. ROAD ACCIDENTS BY WEATHER CONDITIONS AND ROAD TYPE. Year 2016. Percentage values (a)

CHART 7. ROAD ACCIDENTS BY WEATHER CONDITIONS AND HOUR OF THE DAY. Year 2016. Percentage values (a)

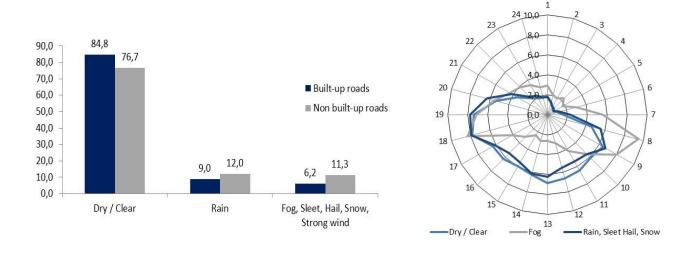


TABLE 4. ROAD ACCIDENTS RESULTING IN DEATH OR INJURY, KILLED AND INJURED BY ROAD TYPE. Years 2016, 2015 and 2014. Absolute values and percentage changes 2016/2015

ROAD CATEGORY	Road accidents 2016	Road accidents 2015	Road accidents 2014	Killed 2016	Killed 2015	Killed 2014	Injured 2016	Injured 2015	Injured 2014	% Change% accidents 2016/20152	killed	injured
Built up roads	131,107	130,457	133,598	1,463	1,502	1,505	176,423	175,156	180,474	+0.5	-2.6	+0.7
Motorways	9,360	9,179	9,148	274	305	287	15,790	15,850	15,290	+2.0	-10.2	-0.4
Non built up roads (a)	35,324	34,903	34,285	1,546	1,621	1,589	56,962	55,914	55,383	+1.2	-4.6	+1.9
Total	175,791	174,539	177,031	3,283	3,428	3,381	249,175	246,920	251,147	+0.7	-4.2	+0.9

(a) Included rural or not built up roads called: Statali, Regionali and Provinciali, Comunali out of urban area.

CHART 8. ROAD ACCIDENTS RESULTING IN DEATH OR INJURY, KILLED AND INJURED BY ROAD TYPE (a). Year 2016 percentage values

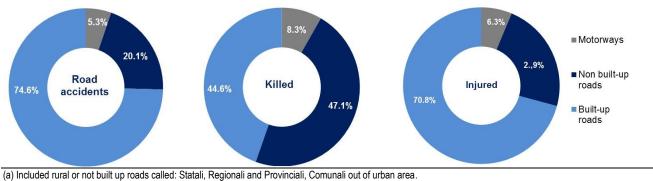
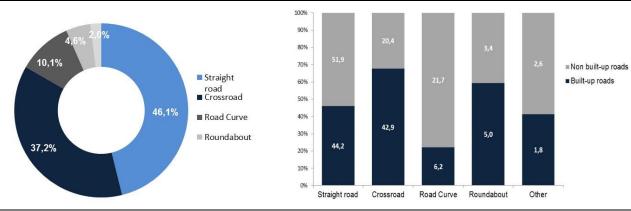


CHART 9. ROAD ACCIDENTS AT JUNCTION OR STRAIGHT. Year 2016, percentage values.

CHART 10. ROAD ACCIDENTS AT JUNCTION OR STRAIGHT AND ROAD TYPE. Year 2016, percentage values (a)



(a) Included rural or not built up roads called: Statali, Regionali and Provinciali, Comunali out of urban area.

CHART 11. ROAD MORTALITY RATE BY AGE CLASS. Year 2016 (per 1,000,000 inhabitants)

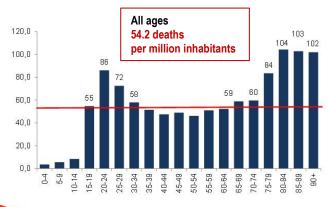
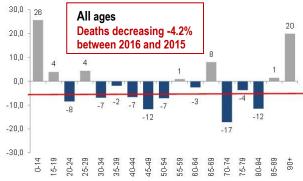


CHART 12. KILLED IN ROAD ACCIDENTS BY AGE CLASS. Percentage change 2016/2015

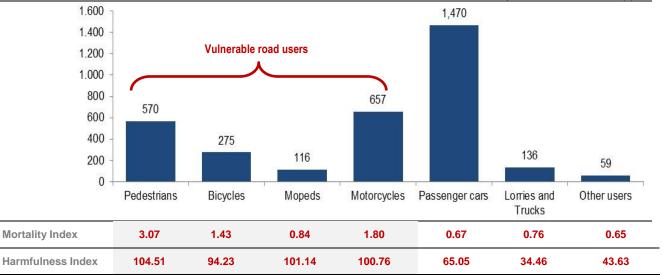


AGE		Killed		Injured				
CLASSES (a)	Males	Females	Total	Males	Females	Total		
0 - 4	5	4	9	1,529	1,231	2,76		
5 - 9	7	9	16	2,011	1,667	3,67		
10 -14	15	9	24	2,981	2,425	5,40		
15 -19	128	30	158	11,931	6,989	18,92		
20 -24	207	53	260	16,867	10,137	27,00		
25 -29	194	42	236	15,215	9,517	24,73		
30 - 34	172	30	203	13,075	8,078	21,15		
35 - 39	176	31	206	12,729	8,053	20,78		
40 - 44	189	36	225	13,595	8,471	22,06		
45 - 49	195	46	241	13,227	8,430	21,65		
50 -54	192	30	222	11,965	7,743	19,70		
55 -59	178	34	212	9,283	5,822	15,10		
60 -64	151	41	192	6,847	4,258	11,10		
65 -69	158	57	215	5,372	3,696	9,06		
70 - 74	128	46	174	4,223	2,947	7,17		
75 - 79	171	62	233	4,079	2,758	6,83		
80 - 84	163	52	215	2,828	1,748	4,57		
85 - 89	101	35	136	1,394	771	2,16		
90 +	62	10	72	335	199	53		
Jnknown	27	7	34	2,507	2,242	4,74		
Total	2,619	664	3,283	151,993	97,182	249,17		

TABLE 5. KILLED AND INJURED IN ROAD ACCIDENTS B	GENDER AND AGE CLASS. Year 2016, absolute values
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The age class variable, also includes the "unknown or not indicated" mode. For each accident, in fact, also the occupants of other vehicles involved over the third is counted too. For these individuals, of which we only know the number and the outcome, demographic characteristics, including the age, are not detected





(a) Number of killed or injured per 100 road accidents involving pedestrians or vehicles by type.



USER TYPE. Years 2001- 2016. Absolute values

3,847 ----Passenger cars occupants -Powered two wheels users Pedestrians -Cyclists 1,470 1,426 1.032



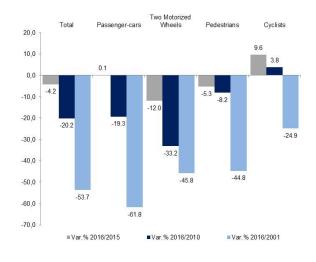


TABLE 6. ROAD ACCIDENTS RESULTING IN DEATH OR INJURY AND KILLED BY ROAD CATEGORY IN LARGE MUNICIPALITIES IN ITALY. Years 2016 and 2015 (a). Absolute values, road mortality rate per 100,000 inhabitants, percentage change 2016/2010

		Built up ro	oads		Ν	lot built up r	oads (b)		Road	Road	% Change	
MAIN CITIES	Road accidents 2016	Road accidents 2015	Killed 2016	Killed 2015	Road accidents 2016	Road accidents 2015	Killed 2016	Killed 2015	mortality rate Year 2016 (per 100,000)	mortality rate Year 2015 (per 100,000)	killed (total) 2016/2010 (d)	
Torino	2,964	3,083	27	30	49	80	1	3	3.2	3.7	-3.4	
Milano	8,685	8,503	45	48	250	226	5	5	3.7	4.0	-13.8	
Verona	1,217	1,183	13	6	108	107	1	5	5.4	4.2	-48.1	
Venezia	494	494	5	8	192	172	2	3	2.7	4.2	-36.4	
Trieste	823	912	4	5	55	58	3	-	3.4	2.4	-36.4	
Genova	3,984	4,114	13	25	221	231	-	4	2.2	4.9	-59.4	
Bologna	1,707	1,648	13	20	217	224	3	5	4.1	6.5	-42.9	
Firenze	2,551	2,527	15	22	87	24	-	1	3.9	6.0	-40.0	
Roma	11,611	11,512	105	127	1,630	1,616	35	46	4.9	6.0	-23.1	
Napoli	2,112	1,959	27	22	188	210	3	6	3.1	2.9	-14.3	
Bari	1,328	1,501	6	6	186	184	2	4	2.5	3.1	-20.0	
Palermo	2,195	2,052	25	14	61	53	-	4	3.7	2.7	-35.9	
Messina	625	583	11	2	137	114	2	2	5.5	1.7	-18.8	
Catania	1,140	1,144	20	17	61	46	-	-	6.4	5.4	-13.0	
Total	41,436	41,215	329	352	3,442	3,345	57	88	4.0	4.5	-26.6	

(a) Included rural or not built up roads called: Statali, Regionali and Provinciali, Comunali out of urban area and motorways.

(b) Percentage change: $((M^{2016}/M^{2010})-1)*100$; the symbol "-" means "no changes".



CHART 16 ROAD ACCIDENTS RESULTING IN DEATH OR INJURY AND KILLED IN THE MAIN MUNICIPALITIES IN ITALY (IN TOTAL). Years 2001-2016. Absolute values (a)

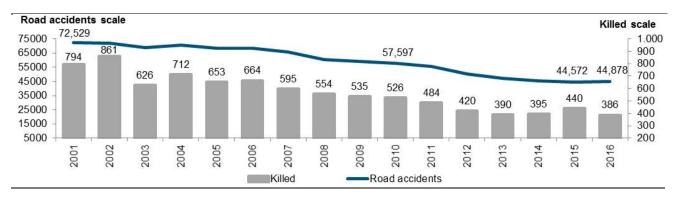


TABLE 7. KILLED IN ROAD ACCIDENTS IN ITALIAN REGIONS (a). Years 2010 and 2016. Absolute values, percentage changes, road mortality rate per 100,000 inhabitants

DECIONS	Kille	d (absolute v	alues)	%changes	%changes	Mortality rate	Mortality rate
REGIONS	2010	2015	2016	2016/2010 (b)	2016/2015 (a)	2010 (b)	2016 (b)
Piemonte	327	246	247	-24.5	0.4	5.6	5.6
Valle d'Aosta/Vallée d'Aoste	11	7	3	-72.7	-57.1	5.5	2.4
Lombardia	565	478	434	-23.2	-9.2	4.8	4.3
Bolzano/Bozen	30	36	38	26.7	5.6	6.9	7.3
Trento	29	42	32	10.3	-23.8	7.8	5.9
Veneto	396	315	344	-13.1	9.2	6.4	7.0
Friuli-Venezia Giulia	103	70	67	-35.0	-4.3	5.7	5.5
Liguria	84	89	58	-31.0	-34.8	5.6	3.7
Emilia-Romagna	401	326	307	-23.4	-5.8	7.3	6.9
Toscana	306	247	249	-18.6	0.8	6.6	6.7
Umbria	79	64	35	-55.7	-45.3	7.2	3.9
Marche	109	93	100	-8.3	7.5	6.0	6.5
Lazio	450	370	347	-22.9	-6.2	6.3	5.9
Abruzzo	79	84	76	-3.8	-9.5	6.2	5.7
Molise	28	22	17	-39.3	-22.7	7.0	5.5
Campania	254	235	218	-14.2	-7.2	4.0	3.7
Puglia	292	232	254	-13.0	9.5	5.5	6.2
Basilicata	48	43	42	-12.5	-2.3	7.5	7.3
Calabria	138	94	117	-15.2	24.5	4.8	5.9
Sicilia	279	225	192	-31.2	-14.7	4.4	3.8
Sardegna	106	110	106	0.0	-3.6	6.6	6.4
Italy	4,114	3,428	3,283	-20.2	-4.2	5.6	5.4

(a) Percentage change: $((M^{2016}/M^{2010})-1)*100$

(b) The number of deaths per 100,000 inhabitants is calculated by the ratio between the total deaths in the region and the average resident population by the year 2016 (Source Istat)



Glossary:

Bus: passenger-carrying vehicle, most commonly used for public transport, having more than 16 seats for passengers.

Deaths: the number of people, involved in road accidents, who die immediately or within 30 days after the event occurred. This definition was adopted on 01st January 1999, while in the past (up until 31st December 1998) deaths were considered to include only deaths within seven days of the accident.

Goods vehicle: Motor vehicle used only for the transport of goods.

Injured: the road user was seriously or slightly injured (but not killed within 30 days) in the road accident.

Moped: two or three wheeled vehicle equipped with internal combustion engine, with size less than 50 cc and maximum speed that does not exceed 45 km/h (28mph).

Motorcycle: two or three wheeled motor vehicle, with engine size up to 125 cc, or maximum speed exceeding 45km/h (28 mph) or with engine size more than 125 cc.

Passenger car: motor vehicle with 3 or 4 wheels, mainly used to transport people, seating for no more than 8 occupants. Motor vehicles with these characteristics used as taxis as well as motor caravans are also included.

Pedal cycle: vehicle with at least 2 wheels, without engine. In some cases it can also use electric power.

Pedestrian: person on foot; person pushing or holding bicycle, Person who uses a wheel chair ,a pram or a pushchair, leading or herding an animal, riding a toy cycle on the footway, person on roller skates, skateboard or skis. Does not include persons in the act of boarding or alighting from a vehicle.

Percentage change: the percentage change is calculated by means the difference between data at **t** time and data **t-1** (or t-x) time, divided by data at **t-1**(or t-x) time, per 100.

Public motor vehicle registry (PRA): the registry holding all public deeds relating to the transfer of property and rights of ownership, in addition to the records of loans and mortgages on all motor vehicles registered in Italy.

Road accident: the 1968 Vienna Convention defines a road accident as an event occurring on the roads or squares open to traffic involving standing or moving vehicles and which results in injury to people. For this reason, if the accident only involves damage to objects, it is excluded from the statistics. This definition therefore reserves attention exclusively for reported accidents involving injury to people.

Road accidents harmfulness index: the ratio of the number of injuries caused by road accidents and the number of collisions, per 100 accidents.

Road accidents mortality index: the ratio of the number of fatalities caused by road accidents and the number of collisions, per 100 accidents.

Road accidents seriousness index: the ratio of the number of fatalities caused by road accidents and the total number of deaths and injuries as a result of accidents, per 100 accidents.

Road tractor road motor vehicle designed, exclusively or primarily, to haul other road vehicles which are not power-driven (mainly semi-trailers).

Rural or non-built up roads: outside urban area, no motorway

Serious injuries: the serious injuries are identified by MAIS classification (Maximum Abbreviated Injury Scale). The severity level is measured by a 6-level scale. Serious injuries have a score of 3 or higher (MAIS3+).

Two wheel motor vehicle: motor vehicle moving on two wheels. Includes mopeds and motorcycles but not bicycles.

Urban or built up roads: inside urban area, no motorway.



Methodological note

Data flow and definitions

The survey on road accidents resulting in death (within 30 day) or injury, carried out by the Italian National Institute of Statistics (Istat), with the cooperation of ACI (Automobile Club of Italy) and other local organisations, is an exhaustive and monthly based data collection (National Statistical Programme - PSN – 00142 code).

The survey collects all road accidents involving at least a vehicle, circulating on the national road net, resulting in death or injury and documented by a Police authority.

The detection unit is the single road accident resulting in death or injury; all information is referred to the period when the accident occurred.

As regards the data flow, a flexible model was adopted by Istat, through the subscription of a Memorandum of understanding or special agreements signed with regions (NUTS2 level) and provinces (NUTS3 level), in order to facilitate the local authority information needs and to improve the timeliness and quality of data collected.

Main information collected:

- Date, time and location of the accident
- Type of road
- Road surface
- Signals
- Weather conditions
- Type of accident (collision, investment, etc.)
- Type of vehicles involved
- Consequences of the accident to people
- · Causes of the accident

Timeliness and dissemination

The figures for every year t-1 are disseminated in July of the year t, approximately five months after the collection deadline.

European Union law of reference:

Reference: COUNCIL DECISION of 30 November 1993 on the creation of a Community database on the road accidents <u>Decision n. 704 of 1993</u>

Link to database and websites:

- Noi Italia: <u>http://noi-italia.istat.it/</u>
- DWH I.stat: <u>http://dati.istat.it/</u> (Health Statistics/Road Accidents)
- Time series: <u>http://seriestoriche.istat.it/</u>
- CARE Community database on road accidents resulting in death or injury DG-MOVE European Commission <u>http://ec.europa.eu/transport/road_safety/specialist/statistics/index_en.htm</u>

