

OECD Health Statistics 2017

Definitions, Sources and Methods

Injuries in road traffic accidents

Number of people injured in road traffic accidents per million population.

Sources and Methods

The United Nations Economic Commission for Europe (UNECE), *Statistics of Road Traffic Accidents in Europe and North America* (several issues), has been used as a source for several OECD countries (see detailed list below).

Database available at http://w3.unece.org/PXWeb2015/pxweb/en/STAT/STAT_40-TRTRANS_01-TRACCIDENTS (data extracted 12 May 2017).

Other countries have supplied data directly.

The following definitions are used in this report:

Road traffic accident:

An accident which occurred or originated on a way or street open to public traffic; resulted in one or more persons being killed or injured, and at least one moving vehicle was involved. These accidents therefore include collisions between vehicles, between vehicles and pedestrians and between vehicles and animals or fixed obstacles. **Single vehicle accidents** in which one vehicle alone (and no other road user) was involved are included. **Multi-vehicle collisions** are counted only as one accident provided that the successive collisions happened at very short intervals

Injured:

Any person who was not killed but sustained one or more serious or slight injuries as a result of the accident.

Serious injuries:

Fractures, concussions, internal lesions, crushing, severe cuts and laceration, severe general shock requiring medical treatment and any other serious lesions entailing detention in hospital.

Slight injuries:

Secondary injuries such as sprains or bruises. Persons complaining of shock, but who have not sustained other injuries, should not be considered in the statistics as having been injured unless they show very clear symptoms of shock and have received medical treatment or appeared to require medical attention.

i Please note that some countries include people killed in road traffic accidents. Differences in definition are noted in the country-specific notes below.

Australia

Sources:

2012: Australian Institute of Health and Welfare, Pointer S 2015. Trends in hospitalised injury, Australia: 1999-00 to 2012-13. Injury research and statistics series 95. Cat. no. INJCAT 171. Canberra: AIHW.

2010: Australian Institute of Health and Welfare, Pointer S 2013. Trends in hospitalised injury, Australia: 1999-00 to 2010-11. Injury research and statistics series 86. Cat. no. INJCAT 162. Canberra: AIHW.

2008: Australian Institute of Health and Welfare, Henley G & Harrison JE 2012. Trends in serious injury due to land transport accidents, Australia 2000-01 to 2008-09. Injury research and statistics series no. 66. Cat. no. INJCAT 142. Canberra: AIHW.

2000-2007: Australian Institute of Health and Welfare, Henley G & Harrison JE 2011. Trends in serious injury due to land transport accidents, Australia 2000-01 to 2007-08. Injury research and statistics series no. 54. Cat. no.

INJCAT 132. Canberra: AIHW.

1990-1996: **Federal Office of Road Safety**, Road Injury Australia: 1996 Statistical Summary.

1980-1989: **Australian Bureau of Statistics**, Road Traffic Accidents Involving Casualties, Australia.

Until 1979: **Australian Bureau of Statistics**. ABS Cat. No. 9405.0, Road traffic accidents involving casualties, Australia.

Methodology:

Breaks in time series in 1980, 2000, 2010 and 2012:

- Data for 2012 are based on all hospital separations from land transport accidents (first reported external cause code was in the ICD-10-AM range V00–V89). The year reported is the financial year 1 July to 30 June (e.g. 2012-13 is reported as 2012). Crude rate calculated based on Australian estimated resident population at 31 December (not age-standardised to the 2001 Australian population).

- Data for 2010 are based on all hospital separations from land transport accidents (first reported external cause code was in the ICD-10-AM range V01–V89). The year reported is the financial year 1 July to 30 June (e.g. 2010-11 is reported as 2010). Crude rate calculated based on Australian estimated resident population at 31 December (not age-standardised to the 2001 Australian population).

- Data from 2000 are based on hospital separations. Serious injury is defined as “an injury which results in the person being admitted to hospital, and subsequently discharged alive either on the same day or after one or more nights stay in a hospital bed (i.e. deaths in hospital are excluded)”. Data are age-standardised to the 2001 Australian population.

- Data from 1980 to 1996 are based on police reported non-fatal hospital admissions, and hence cover serious road crashes only. Note that numerous non-fatal hospital admissions for road accidents are not included in police reports.

- Until 1980: Data include “accidents reported to police which occurred in public thoroughfares and which resulted in bodily injury to an extent requiring surgical or medical treatment.”

Further information: <http://www.abs.gov.au/> and <http://www.aihw.gov.au/>.


Austria

Sources:

From 1992: **Statistics Austria**, Road Accident Statistics.

Until 1991: **United Nations Economic Commission for Europe (UNECE)**, *Statistics of Road Traffic Accidents in Europe and North America* (several issues).

Methodology: For the period 1966-1991, persons are recorded as killed who die within 3 days as a result of the accident; persons who die later are recorded as injured. Before 1966, the standard definition was applied whenever possible.

 **Break in 2012:** Since 1 January 2012 accidents are recorded electronically by the police while so-called “accident count sheets” (“Unfallzählblätter”) are no longer used. Due to the comprehensive change in the data collection method, data before and after 2012 are not directly comparable.

Further information:


http://www.statistik.at/web_de/static/information_zur_statistik_der_strassenverkehrsunfaelle_mit_personenschaden_065391.pdf.

Belgium

Sources:

From 1995: **Statistics Belgium**, Direction générale statistique et information économique.

Until 1994: **Service Public Fédéral Santé Publique**, Sécurité de la chaîne alimentaire et Environnement.

 **Break in time series:** Since 2011, the official numbers for injuries are calculated based upon the population defined following the international definition of population.

Further information: <http://www.health.belgium.be/eportal> and

http://statbel.fgov.be/fr/statistiques/chiffres/circulation_et_transport/circulation/accvict/.

Canada

Source: **Transport Canada**. Canadian Motor Vehicle Traffic Collision Statistics, collected in cooperation with the Canadian Council of Motor Transport Administrators.

Methodology:

- “Total injuries” include minimal, minor, moderate, serious and unspecified injuries.
- Data for Nunavut are not reported for 2001.
- Data for Ontario are preliminary at the time of the source publication.
- Recent changes in how traffic accident reports are collected in Manitoba resulted in an increased number of injuries of a minimal nature being captured in 2011 and beyond.
- The decline of police reporting in British Columbia in the years 1996-2004 has affected national totals.

Further information: <http://www.tc.gc.ca/motor-vehicle-safety>.

Chile

Source: **National Committee for Traffic Safety (CONASET)**. The original source is the **Chilean Police** (“Carabineros de Chile”).

Methodology: The Chilean Police provides annual reports and databases of road traffic accidents to the National Committee for Traffic Safety (CONASET).

- Data may include people who died more than 24 hours after the accident.

The significant decrease in the number of injuries in road traffic accidents from 1984 to 1985 is due to the implementation of a new traffic law on January 1st 1985 which established tougher penalties.

Further information: <http://www.conaset.cl/programa/observatorio-datos-estadistica/biblioteca-observatorio/estadisticas-generales/>.

Czech Republic

Source: **United Nations Economic Commission for Europe (UNECE)**, *Statistics of Road Traffic Accidents in Europe and North America* (several issues).

Methodology: Number of people injured in road traffic accidents (people killed are not included).

Notes:


- Since 1980: People are recorded as “killed” who die within 30 days of the accident.
- Until 1979: People are recorded as “killed” who die within 24 hours of the accident.

Denmark

Source: **United Nations Economic Commission for Europe (UNECE)**, *Statistics of Road Traffic Accidents in Europe and North America* (several issues).

Estonia

Source: **Estonian Road Administration** (<https://www.mnt.ee/et/ametist/statistika/liiklusonnetuste-statistika>).

 **Break in time series:** From 2001 onwards, persons who are slightly injured (persons who need first aid only) are also included.

Further information: <http://www.mnt.ee>.

Finland

Source: **United Nations Economic Commission for Europe (UNECE)**, *Statistics of Road Traffic Accidents in Europe and North America* (several issues).

France

Source: **Ministry of Transport, National Interministerial Office for Road Safety (ONISR)**.

Coverage: From 2004, data refer to France (excluding Mayotte). Before 2004, data refer only to Metropolitan France.

Methodology:

- Data take into account the number of injured in road traffic accidents compared to the average population in metropolitan France. The number of persons killed is excluded.
- The injured are defined as those who do not die from the accident. Injured persons include severely injured persons who have been hospitalised more than 24 hours and lightly injured people who have received medical care but who

have not been admitted in a hospital for more than 24 hours. Severely injured persons who are hospitalised for more than 24 hours and lightly injured persons who have received medical care but were not admitted to hospital for more than 24 hours.

Further information: *Bilan de la sécurité routière - Année 2015* (<http://www.securite-routiere.gouv.fr/la-securite-routiere/l-observatoire-national-interministeriel-de-la-securite-routiere/bilans-annuels/les-bilans-annuels-de-la-securite-routiere-en-france>).

Germany

Source: United Nations Economic Commission for Europe (UNECE), *Statistics of Road Traffic Accidents in Europe and North America* (several issues).

Greece

Sources:

From 1999 onwards: **Hellenic Statistical Authority.**

Until 1998: **General Secretariat of the National Statistical Service of Greece**, Division of Social Statistics, Section of justice and public service.

Methodology:

From 1999 onwards: Persons who die are not included.


Until 1998: Deaths are not included. Figures include serious and slight injuries.


Further information: <http://www.statistics.gr/el/statistics/-/publication/SDT03/>.

Hungary

Source: Hungarian Central Statistical Office (KSH), Statistical Yearbook.

Methodology:

 The significant increase in the number of injuries in road traffic accidents from 1960 to 1970 is partially due to the increase in cars: there were 39800 cars in 1960, compared to 238500 cars in 1970 in Hungary.

 **Break in time series:** From 1990, data include all persons injured in road accidents, regardless of whether they are victims of slight, serious, or fatal injuries. Before 1990, data include only slight and serious injuries, excluding fatal injuries.

Further information: <http://www.ksh.hu>.


Iceland

Source: Statistics Iceland Road traffic accidents 1981 and onwards and Icelandic Historical Statistics (published in 1997).

Methodology:

- Data refer to persons injured in road traffic accidents. Persons killed are excluded.

- In 1992, a change in registration took place which resulted in more people being registered with insurance than before. All road traffic accidents in Iceland were then registered whether Icelanders or foreigners were involved.

 **Break in time series:** Break in the series in 1975 when international definition of traffic injuries was adopted.

Further information: For more information, see Road traffic accidents 1981-2011,

<http://www.statice.is/Statistics/Tourism,-transport-and-informati/Aviation>.

Ireland

Source: United Nations Economic Commission for Europe (UNECE), *Statistics of Road Traffic Accidents in Europe and North America* (several issues).

Israel

Source: Central Bureau of Statistics.

Methodology: Deaths are not included.

Further information: For definitions and explanations, see http://www.cbs.gov.il/publications16/acci15_1643/pdf/introa_e.pdf.

Note: The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Italy

Sources:

From 2013 onwards: ISTAT, Istituto Nazionale di Statistica (National Institute of Statistics). “Rilevazione sugli incidenti stradali con lesioni a persone/Survey on road traffic accidents with injured people”.

Until 2012: United Nations Economic Commission for Europe (UNECE), *Statistics of Road Traffic Accidents in Europe and North America* (several issues).

Further information: <http://dati.istat.it/?lang=en&SubSessionId=31cb89cc-f9bd-4a0e-8abc-e71cd1410270&themetreeid=-200>

Japan

Source: National Police Agency.

Coverage: Data for 1971 and before do not include data from the Okinawa prefecture.

Methodology:


- Population statistics are from the “Estimated population” as of October 1st, Ministry of Internal Affairs and Communications and the “National Census” (released every 5 years).
- The reason for the sharp decrease in the number of injured from 1970 to 1974 is described as follows: “The First Traffic Safety Policies Basic Plan was made in 1971. According to this plan, traffic safety facilities (ex: roads, traffic lights etc.) were overhauled. Furthermore, efficient traffic controls, improvement of safety of car’s function, teaching traffic etiquette, enhancement of police traps, traffic safety campaign and diffusion of traffic safety education were implemented. The public also cooperated with that plan positively, and voluntarily worked for traffic safety”.

Korea

Source: The Korea Road Traffic Authority (KoROAD), Traffic Accident Analysis System Database.

Methodology:

- Number of injuries divided by estimated population.
- Injury data are obtained periodically from police, insurance companies and mutual aid associations. Data have been refined to eliminate duplications.

 **Break in time series:** The definition of ‘death caused by accident’ has been changed in 1999. Before 1999, cases of people who died within 72 hours were recorded as a death. From 1999, cases of people who die within 30 days of the accident are recorded as a death and excluded.

Further information: <https://taas.koroad.or.kr/web/umt/initLogin.do>.

Latvia

Source: United Nations Economic Commission for Europe (UNECE), *Statistics of Road Traffic Accidents in Europe and North America* (several issues).

Methodology: Persons are recorded as killed who die at the scene of the accident or within 7 days; persons who die later are recorded as injured.

Luxembourg

Source: United Nations Economic Commission for Europe (UNECE), *Statistics of Road Traffic Accidents in Europe and North America* (several issues).

Mexico

Sources:

From 2000 onwards: **National Prevention of Accidents Council (CONAPRA)** with information from the **National Institute of Statistics and Geography (INEGI)** for traffic accidents in urban and suburban areas and from the **Federal Police Records** for traffic accidents on federal roads.

1978-1996: **Instituto Nacional de Estadística**, Geografía e Informática (National Institute of Statistics, Geography and Information Technology.) Statistical annual of Mexico ed. 1998, (INEGI), page 182-183. Ed 1999 and Statistical Yearbook of Estados Unidos Mexicanos, 1995, 1999.

Methodology: Data from 1997 to 1999 are estimated using linear interpolation, as there are no data for this period.

Further information: <http://www.inegi.gob.mx/> and <http://www.ssp.gob.mx/> (both in Spanish).

Netherlands

Sources:

From 1999 onwards: **United Nations Economic Commission for Europe (UNECE)**, *Statistics of Road Traffic Accidents in Europe and North America* (several issues).

1960-1997: **Statistics Netherlands**. Statistics on road traffic accidents.

✂ **Break in time series in 1999:** Injured people refer to persons who were hospitalised (data from 1999 onwards).

1960-1997: Data are based on police reports, with large under-reporting.

Further information: <https://www.cbs.nl/en-GB/>.

New Zealand

Source: Ministry of Transport.

Methodology:

- Rates per million population were calculated, and refreshed, using the estimated resident population “as at Dec”, and were sourced from Statistics NZ.

- Figures include minor and serious injuries but exclude fatal injuries.

- The Ministry of Transport produces Injury and Crash conversion factors (defined as the ratio of estimated to reported numbers of incidents) in order to estimate the total numbers of injuries and crashes from their reported numbers. These factors are derived using annual crash and injury data from Police Traffic Crash Reports, hospitalisation data and Accident Compensation Corporation (ACC) new claims data from the Motor Vehicle Account.

- Because not all crashes are reported and recorded in the official Traffic Crash Reports (TCRs), counting the reported numbers alone would underestimate the road safety risks and the potential benefits that might be achieved through road safety improvements.

- The NZ approach of adjustment for under-reporting of injuries in RTAs may differ from other OECD countries which do not adjust for under-reporting, and provide one explanation why NZ’s RTA injury rates exceed those of other countries.

Further information:

<http://www.transport.govt.nz/ourwork/Land/landsafety/Pages/TheSocialCostofRoadCrashesandInjuries.aspx>.

Norway

Source: **United Nations Economic Commission for Europe (UNECE)**, *Statistics of Road Traffic Accidents in Europe and North America* (several issues).

Poland

Source: National Police Headquarters of Poland.

Methodology: The methodology used is in accordance with methodology presented in the EU CARE regulation on road traffic accidents.

Portugal

Source: **United Nations Economic Commission for Europe (UNECE)**, *Statistics of Road Traffic Accidents in*

Europe and North America (several issues).

Coverage: Data refer to continent only.

Methodology: Persons are recorded as killed who die at the scene of the accident or during or immediately after transport from the scene of the accident; persons who die later are recorded as injured.

Slovak Republic

Source: United Nations Economic Commission for Europe (UNECE), *Statistics of Road Traffic Accidents in Europe and North America* (several issues).

Slovenia

Source: Ministry of the Interior – Police, *Annual reports on the Work of the Police*.

Methodology: Definition consistent with the OECD definition.

Further information: <http://www.policija.si/eng/index.php/statistics>.

Spain

Source: United Nations Economic Commission for Europe (UNECE), *Statistics of Road Traffic Accidents in Europe and North America* (several issues).

Methodology: Persons are recorded as killed who die within 24 hours as a result of the accident; persons who die later are recorded as injured.

Sweden

Sources:

2014-2015: *Transport Analysis and Statistics Sweden*.

2013: The STRADA database at <http://transportstyrelsen.se/en/road/>.

2010-2012: *Transport Analysis and Statistics Sweden*.

Until 2009: *Swedish Institute for Transport and Communications Analysis*.

Methodology: Number of road traffic accidents reported to the police (number of severely injured and slightly injured persons), divided by the population at November 1.

Further information: <http://www.trafa.se/In-English/Statistics/>, Vägtrafikskador Table 4.1.

Switzerland

Source: United Nations Economic Commission for Europe (UNECE), *Statistics of Road Traffic Accidents in Europe and North America* (several issues).

Turkey

Source: Turkish Statistical Institute (TURKSTAT).

Methodology:

- Data for injuries come from administrative records of the Turkish National Police and General Command of Gendarmerie. The data on road traffic accidents are compiled from Record of Traffic Accidents forms filled out for every accident and prepared for both judicial and statistical purposes in accordance with the Highway traffic Law No. 2918.


- Due to the revision of the mid-year population, data have been updated since 2000. Demographic data based on population censuses and ABPRS. Since a census is not conducted on a yearly basis, projections are made for next year. Demographic information is also updated since the projections are updated on yearly basis.

- Data since 2000 refer to cases including the number of people who got injured in accidents reported by police and the gendarmerie within the General Directorate of Public Security's framework of accidents.

Further information: <http://www.turkstat.gov.tr/>.

United Kingdom

Source: United Nations Economic Commission for Europe (UNECE), *Statistics of Road Traffic Accidents in Europe and North America* (several issues).

 **Coverage:** Data refer to Great-Britain only.

United States

Source: United Nations Economic Commission for Europe (UNECE), *Statistics of Road Traffic Accidents in Europe and North America* (several issues).

NON-OECD ECONOMIES

Lithuania

Source: United Nations Economic Commission for Europe (UNECE), *Statistics of Road Traffic Accidents in Europe and North America* (several issues).

Russian Federation

Source: United Nations Economic Commission for Europe (UNECE), *Statistics of Road Traffic Accidents in Europe and North America* (several issues).

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