Appendix B. Recommended crash-related minimum data set and data sources

			Data sources							
			Preference order (1= best to 6= least preferred)							
	Crash related indicators		Death certificate	Hospital record	Police report	Insurance report	Driver license	Vehicle registry	Road inventory	National ID
1	Crash identification number	**Definition:** The unique identifier (e.g. a 10-digit number) within a given year that identifies a particular crash. **Obligation:** Mandatory **Data type:** Numeric or character string **Comments:** the police usually assign this value, as they are responsible at the crash scene. Other systems may reference the incident using this number.	2	3	1	N/A	N/A	N/A	N/A	N/A
2	Crash date	**Definition:** The date (day, month and year), on which the crash occurred. **Obligation:** Mandatory **Data type:** Numeric (DDMMYYYY) **Comments:** If a part of the crash date is unknown, the respective places are filled in with 99 (for day and month). Absence of year should result in an edit check. Important for seasonal comparisons, time series analyses, management/ administration, evaluation and linkage.	4	3	1	2	N/A	N/A	N/A	N/A

3	Crash time	**Definition:** The time at which the crash occurred, using the 24 hour-clock format (00.00-23:59). **Obligation:** Mandatory **Data type:** Numeric (HH:MM) **Comments:** Midnight is defined as 00:00 and represents the beginning of a new day. Variable allows for analyses of different time periods.	4	3	1	2	N/A	N/A	N/A	N/A
4	Crash location	**Crash location** **Definition:** The exact location at which the crash occurred. Optimum definition is route name and GPS/GIS coordinates if there is a linear referencing system (LRS), or other mechanism that can relate geographic coordinates to specific locations in road inventory and other files. The minimum requirement for documentation of crash location is the street name, the reference point, and distance from reference point and direction from reference point. **Obligation:** Mandatory **Data type:** Character string, to support latitude/longitude coordinates, linear referencing method, or link node system. **Comments:** Critical for problem identification, prevention programs, engineering evaluations, and mapping and linkage purposes.	3	N/A	1	2	N/A	N/A	N/A	N/A
5	Crash type	**Crash type** **Definition:** The crash type is characterized by the first injury or damage-producing event of the crash. **Obligation:** Mandatory **Data type:** Numeric **Data values:**	3	4	1	2	N/A	N/A	N/A	N/A

		1 Crash with pedestrian: Crash between a vehicle and at least one pedestrian. **2 Crash with parked vehicle:** Crash between a moving vehicle and a parked vehicle. A vehicle with a driver that is just stopped is not considered as parked. **3 Crash with fixed obstacle:** Crash with a stationary object (i.e. tree, post, barrier, fence, etc.). **4 Non-fixed obstacle:** Crash with a non-fixed object or lost load. **5 Animal:** Crash between a moving vehicle and an animal. **6 Single vehicle crash/non-collision:** Crash in which only one vehicle is involved and no object was hit. Includes vehicle leaving the road, vehicle rollover, cyclists falling etc. **7 Crash with two or more vehicles:** Crashes where two or more moving vehicles are involved. **8 Other crashes:** Other crash types not described above. **Comments:** If the road crash includes more than one event, the first should be recorded, through this variable. If more than one value is applicable, select only the one that corresponds best to the first event. Important for understanding crash causation, identifying crash avoidance countermeasures.								
6	Impact type	**Impact type** **Definition:** Indicates the manner in which the road motor vehicles involved initially collided with each other. The variable refers to the first impact of the crash, if that impact was between two road motor vehicles.	N/A	N/A	1	2	N/A	N/A	N/A	N/A

		Obligation: Mandatory **Data type:** Numeric **Data values:** **1 No impact between motor vehicles:** There was no impact between road motor vehicles. Refers to single vehicle crashes, collisions with pedestrians, animals or objects. **2 Rear end impact:** The front side of the first vehicle collided with the rear side of the second vehicle. **3 Head on impact:** The front sides of both vehicles collided with each other. **4 Angle impact – same direction:** Angle impact where the front of the first vehicle collides with the side of the second vehicle. **5 Angle impact – opposite direction:** Angle impact where the front of the first vehicle collides with the side of the second vehicle. **6 Angle impact – right angle:** Angle impact where the front of the first vehicle collides with the side of the second vehicle. **7 Angle impact – direction not specified:** Angle impact where the front of the first vehicle collides with the side of the second vehicle. **8 Side by side impact – same direction:** The vehicles collided side by side while travelling in the same direction. **9 Side by side impact – opposite direction:** The vehicles collided side by side while travelling in opposite directions. **10 Rear to side impact:** The rear end of the first vehicle collided with the side of the second vehicle.								

		11 Rear to rear impact: The rear ends of both vehicles collided with each other. **Comments:** Useful for identifying structural defects in vehicles.								
7	Weather conditions	**Weather conditions** **Definition:** Prevailing atmospheric conditions at the crash location, at the time of the crash. **Obligation:** Mandatory **Data type:** Numeric **Data values:** **1 Clear** (No hindrance from weather, neither condensation nor intense movement of air. Clear and cloudy sky included) **2 Rain** (heavy or light) **3 Snow** **4 Fog, mist or smoke** **5 Sleet, hail** **6 Severe winds** (Presence of winds deemed to have an adverse effect on driving conditions) **8 Other weather condition** **9 Unknown weather condition** **Comments:** Allows for the identification of the impact of weather conditions on road safety. Important for engineering evaluations and prevention programs.	N/A	N/A	1	2	N/A	N/A	N/A	N/A
8	Light conditions	**Light conditions** **Definition:** The level of natural and artificial light at the crash location, at the time of the crash. **Obligation:** Mandatory **Data type:** Numeric **Data values:**	N/A	N/A	1	2	N/A	N/A	N/A	N/A

		1Daylight: Natural lighting during daytime. **2 Twilight:** Natural lighting during dusk or dawn. Residual category covering cases where daylight conditions were very poor. **3 Darkness:** No natural lighting, no artificial lighting **4 Dark with streetlights unlit:** Streetlights exist at the crash location but are unlit. **5 Dark with streetlights lit:** Streetlights exist at the crash location and are lit. **9 Unknown:** Light conditions at time of crash unknown **Comments:** Information about the presence of lighting is an important element in analysis of spot location or in network analysis. Additionally, important for determining the effects of road illumination on nighttime crashes to guide relevant future measures.								
9	Crash severity	**Crash severity** **Definition:** Describes the severity of the road crash, based on the most severe injury of any person involved. **Obligation:** Mandatory **Data type:** Numeric **Data values:** **1 Fatal:** At least one person was killed immediately or died within 30 days because of the road crash. **2 Serious/severe injury:** At least one person was hospitalized for at least 24 hours because of injuries sustained in the crash, while no one was killed. **3 Slight/minor injury:** At least one of the participants of the crash was hospitalized less than 24 hours or not	1	2	4	3	N/A	N/A	N/A	N/A

		hospitalized, while no participant was seriously injured or killed. **Comments:** Provides a quick reference to the crash severity, summarizing the data given by the individual personal injury records of the crash. Facilitates analysis by crash severity level. Several crash-related variables can be derived from collected data, including number of vehicles involved (total), number of motorized vehicles involved, number of non-motorized vehicles involved, number of fatalities, number of non-fatal injuries, day of week, and more. These variables provide counts or other information without the user having to go back to individual records. Depending on the type of reports generated, deriving these data elements can save time and effort.								
	Road related indicators									
10	Type of road way	**Type of roadway** **Definition:** Describes the type of road, whether the road has two directions of travel, and whether the carriageway is physically divided. For crashes occurring at junctions, where the crash cannot be clearly allocated in one road, the road where the vehicle with priority was moving is indicated. **Obligation:** Mandatory **Data type:** Numeric **Data values:** **1 Motorway/freeway:** Road with separate carriageways for traffic in two directions, physically	N/A	N/A	2	3	N/A	N/A	1	N/A

		separated by a dividing strip not intended for traffic. Road has no crossings at the same level with any other road, railway or tramway track, or footpath. Specially sign-posted as a motorway and reserved for specified categories of motor vehicles. **2 Express road:** Road with traffic in two directions, carriageways not normally separated. Accessible only from interchanges or controlled junctions. Specially sign-posted as an express road and reserved for specified categories of motor vehicles. Stopping and parking on the running carriageway are prohibited. **3 Urban road, two-way:** Road within the boundaries of a built-up area (an area with sign-posted entries and exits). Single, undivided street with traffic in two directions, relatively lower speeds (often up to 50 km/h), unrestricted traffic, with one or more lanes, which may or may not be marked. **4 Urban road, one-way:** Road within the boundaries of a built-up area, with entries and exits sign-posted as such. A single, undivided street with traffic in one direction, relatively lower speeds (often up to 50 km/h). **5 Road outside a built-up area:** Road outside the boundaries of a built-up area (an area with sign-posted entries and exits). **6 Restricted road:** A roadway with restricted access to public traffic. Includes cul-de- sacs, driveways, lanes, private roads. **8 Other:** Roadway of a type other than those listed above. **9 Unknown:** Not known where the incident occurred.								

		Comments: Important for comparing crash rates of roads with similar design characteristics, and for conducting comparative analyses between motorway and non-motorway roads.								
11	Road functional class	**Road functional class** **Definition:** Describes the character of service or function of the road where the first harmful event took place. For crashes occurring at junctions, where the crash cannot be clearly allocated in one road, the road where the vehicle with priority was moving is indicated. **Obligation:** Mandatory **Data type:** Numeric **Data values:** **1 Principal arterial:** Roads serving long distance and mainly interurban movements. Includes motorways (urban or rural) and express roads. Principal arterials may cross through urban areas, serving suburban movements. The traffic is characterized by high speeds and full or partial access control (interchanges or junctions controlled by traffic lights). Other roads leading to a principal arterial are connected to it through side collector roads. **2 Secondary arterial:** Arterial roads connected to principal arterials through interchanges or traffic light controlled junctions supporting and completing the urban arterial network. Serving middle distance movements but not crossing through neighborhoods. Full or partial access control is not mandatory.	N/A	N/A	2	3	N/A	N/A	1	N/A

		3 Collector: Unlike arterials, collectors cross-urban areas (neighborhoods) and collect or distribute the traffic to/from local roads. Collectors also distribute traffic leading to secondary or principal arterials. **4 Local:** Roads used for direct access to the various land uses (private property, commercial areas etc.). Low service speeds not designed to serve interstate or suburban movements.								
12	Surface conditions	**Road surface conditions** **Definition:** The condition of the road surface at the time and place of the crash. **Obligation:** Mandatory **Data type:** Numeric **Data values:** **1 Dry:** Dry and clean road surface. **2 Snow, frost, ice:** Snow, frost or ice on the road. **3 Slippery:** Slippery road surface due to existence of sand, gravel, mud, leaves, oil on the road. Does not include snow, frost, ice or wet road surface. **4 Wet, damp:** Wet road surface. Does not include flooding. **5 Flood:** Still or moving water on the road. **6 Other:** Other road surface conditions not mentioned above. **9 Unknown:** The road surface conditions were unknown. **Comments:** Important for identification of high wet-surface crash locations, for engineering evaluation and prevention measures.	N/A	N/A	1	2	N/A	N/A	N/A	N/A
13	Speed limit	**Speed limit**	N/A	N/A	2	3	N/A	N/A	1	N/A

		Definition: The legal speed limit at the location of the crash. **Obligation:** Mandatory **Data type:** Numeric **Data values:** **nnn:** The legal speed limit as provided by road signs or by the country's traffic laws for each road category, in kilometers per hour (km/h). **999 unknown:** The speed limit at the crash location is unknown. **Comments:** For crashes occurring at junctions, where the crash cannot be clearly allocated in one road, the speed limit for the road where the vehicle with priority was moving is indicated.								
14	Road obstacles	**Road obstacles** **Definition:** The presence of any person or object, which obstructed the movement of the vehicles on the road. Includes any animal standing or moving (either hit or not), and any object not meant to be on the road. Does not include vehicles (parked or moving vehicles, pedestrians) or obstacles on the side of the carriageway (e.g. poles, trees). **Obligation:** Mandatory **Data type:** Numeric **Data values:** **1 Yes:** Road obstacle(s) present at the crash site. **2 No:** No road obstacle(s) present at the crash site. **9 Unknown:** Unknown presence of any road obstacle(s) at the crash site. Countries where a large proportion of the road network is unpaved may wish	N/A	N/A	1	2	N/A	N/A	N/A	N/A

		to include the variable 'road surface type' to allow for analysis of crash rates by road surface type.								
15	Junction	**Junction** **Definition:** Indicates whether the crash occurred at a junction (two or more roads intersecting) and defines the type of the junction. In at-grade junctions, all roads intersect at the same level. In not-at-grade junctions, roads do not intersect at the same level. **Obligation:** Mandatory **Data type:** Numeric **Data values:** **1 At-grade, crossroad:** Road intersection with four arms. **2 At-grade, roundabout:** Circular road. **3 At-grade, T or staggered junction:** Road intersection with three arms. Includes T intersections and intersections with an acute angle. **4 At-grade, multiple junction:** A junction with more than four arms (excluding roundabouts). **5 At-grade, other:** Other at-grade junction type not described above. **6 Not at grade:** The junction includes roads that do not intersect at the same level. **7 Not at junction:** The crash has occurred at a distance greater than 20 meters from a junction. **9 Unknown:** The crash location relative to a junction is unknown. **Comments:** Crashes occurring within 20 meters of a junction are considered as crashes at a junction. Important for site-specific studies and identification of appropriate engineering countermeasures.	N/A	N/A	2	3	N/A	N/A	1	N/A

16	Traffic control at junction	**Traffic control at junction** **Definition:** Type of traffic control at the junction where crash occurred. Applies only to crashes that occur at a junction. **Obligation:** Mandatory if crash occurred at a junction **Data type:** Numeric **Data values:** **1 Authorized person:** Police officer or traffic warden at intersection controls the traffic. Applicable even if traffic signals or other junction control systems are present. **2 Stop sign:** Priority is determined by stop sign(s). **3 Give-way sign or markings:** give-way sign or markings determine Priority. **4 Other traffic signs:** Priority is determined by traffic sign(s) other than 'stop', 'give way' or markings. **5 Automatic traffic signal (working):** Priority is determined by a traffic signal that was working at the time of the crash. **6 Automatic traffic signal (out of order):** A traffic signal is present but out of order at time of crash. **7 Uncontrolled:** The junction is not controlled by an authorized person, traffic signs, markings, automatic traffic signals or other means. **8 Other:** The junction is controlled by means other than an authorized person, signs, markings or automatic traffic signals. **Comments:** If more than one value is applicable, (e.g. traffic signs and automatic traffic signals) record all that apply.	N/A	N/A	2	3	N/A	N/A	1	N/A
17	Road Curve	**Road curve**	N/A	N/A	2	3	N/A	N/A	1	N/A

		Definition: Indicates whether the crash occurred inside a curve, and what type of curve. **Obligation:** Mandatory **Data type:** Numeric **Data values:** **1 Tight curve:** The crash occurred inside a road curve that was tight (based on the judgment of the police officer). **2 Open curve:** The crash occurred inside a road curve that was open (based on the judgment of the police officer). **3 No curve:** The crash did not occur inside a road curve. **9 Unknown:** It is not defined whether the crash occurred inside a road curve. **Comments:** Useful for identification and diagnosis of high-crash locations, and for guiding changes to road design, speed limits, etc.								
18	Road segment grade	**Road segment grade** **Definition:** Indicates whether the crash occurred on a road segment with a steep gradient. **Obligation:** Mandatory **Data type:** Numeric **Data values:** **1 Yes:** The crash occurred at a road segment with a high grade. **2 No:** The crash did not occur at a road segment with a high grade. **9 Unknown:** It is not defined whether the crash occurred at a road segment with a high grade.	N/A	N/A	2	3	N/A	N/A	1	N/A

		Comments: Useful for identification and diagnosis of high-crash locations, and for guiding changes to road design, speed limits, etc.								
	Vehicle related indicators									
19	Vehicle number	**Vehicle number** **Definition:** Unique number on assigned to identify each vehicle involved in the crash. **Obligation:** Mandatory **Data type:** Numeric, sequential number **Comments:** Allows the vehicle record to be cross-referenced to the crash record and person records.	N/A	N/A	1	2	N/A	N/A	N/A	N/A
20	Vehicle identification number (VIN, issued by manufacturer)	**Vehicle VIN number** **Definition:** Unique vehicle number attached to the engine compartment of the vehicle by the manufacturer to identify each vehicle involved in the crash. **Obligation:** Mandatory **Data type:** Numeric, sequential number **Comments:** Allows the vehicle record to be cross-referenced with registration and person records.	N/A	N/A	2	3	N/A	1	N/A	N/A
21	Vehicle registration number	**Vehicle registration number** **Definition**: Unique vehicle registration number appearing on the number plate and registration documents. **Obligation**: Mandatory **Data type:** numeric, sequential number **Comments:** Allows cross-referencing with vehicle VIN number and identification.	N/A	N/A	1	2	N/A	3	N/A	N/A

22	Vehicle type	**Vehicle type** **Definition:** The type of vehicle involved in the crash. **Obligation:** Mandatory **Data type:** Numeric **Data values:** **1 Bicycle:** Road vehicle with two or more wheels, generally propelled solely by the energy of the person on the vehicle, in particular by means of a pedal system, lever or handle. **2 Other non-motor vehicle:** Other vehicle without engine not included in the list above. **3 Two/three wheel motor vehicle:** Two or three-wheeled road motor vehicle (includes mopeds, motorcycles, tricycles and all-terrain vehicles). **4 Passenger car:** Road motor vehicle other than a two or three-wheeled vehicle, intended for the carriage of passengers and designed to seat no more than nine (driver included). **5 Bus/coach/trolley:** Passenger-carrying vehicle, most commonly used for public transport, inter-urban movements and tourist trips, seating more than nine persons. Includes vehicles connected to electric conductors and which are not rail-borne. **6 Light goods vehicle (<3.5 t):** Smaller (by weight) motor vehicle designed exclusively or primarily for the transport of goods. **7 Heavy goods vehicle (≥3.5 t):** Larger (by weight) motor vehicle designed exclusively or primarily for the transport of goods.	4	5	2	3	N/A	1	N/A	N/A

		8 Other motor vehicle: Other vehicle not powered by an engine and not included in the two previous lists of values. **9 Unknown:** The type of the vehicle is unknown or it was not stated. **Comments:** Allows for analysis of crash risk by vehicle type and road user type. Important for evaluation of countermeasures designed for specific vehicles or to protect specific road users.								
23	Vehicle make	**Vehicle make** **Definition:** Indicate the make (distinctive name) assigned by motor vehicle manufacturer. **Obligation:** Mandatory if the vehicle is a motorized vehicle. Not applicable to bicycles, tricycles, rickshaws and animal-powered vehicles. **Data type:** Character string. Alternatively, a list of motor vehicle makes can be composed, with a code corresponding to each. Such a list allows for more consistent and reliable recording, as well as for easier interpretation of the data. **Comments:** Allows for crash analyses related to the various motor vehicle makes.	N/A	N/A	2	3	N/A	1	N/A	N/A
24	Vehicle model	**Vehicle model** **Definition:** The code assigned by the manufacturer to denote a family of motor vehicles (within a make) that have a degree of similarity in construction. **Obligation:** Mandatory if the vehicle is a motorized vehicle. Not applicable to bicycles, tricycles, rickshaws and animal-powered vehicles **Data type:** Character string. Alternatively, a list of motor vehicle models can be composed, with a code	N/A	N/A	2	3	N/A	1	N/A	N/A

		corresponding to each. Such a list allows for more consistent and reliable recording, as well as for easier interpretation of the data. **Comments:** Record the name of the model as referred to in the country in which the crash occurred. Allows for crash analyses related to the various motor vehicle models.								
25	Vehicle year of manufacture	**Vehicle model year** **Definition:** The year assigned to a motor vehicle by the manufacturer. **Obligation:** Mandatory if the vehicle is a motorized vehicle. Not applicable to bicycles, tricycles, rickshaws and animal-powered vehicles **Data type:** Numeric (YYYY) **Comments:** Can be obtained from vehicle registration. Important for use in identifying motor vehicle model year for evaluation, research, and crash comparison purposes.	N/A	N/A	2	3	N/A	1	N/A	N/A
26	Engine size	**Engine size** **Definition:** The size of the vehicle's engine is recorded in cubic centimeters. **Obligation:** Mandatory, if vehicle is motorized. Not applicable to bicycles, tricycles, rickshaws and animal-powered vehicles. **Data type:** Numeric **Data values:** **nnnn:** Size of engine **9999:** Unknown engine size **Comments:** Important for identifying the impact of motor vehicle power on crash risk.	N/A	N/A	3	2	N/A	1	N/A	

27	Vehicle special function	**Vehicle special function** **Definition:** The type of special function being served by this vehicle regardless of whether the function is marked on the vehicle. **Obligation:** Mandatory, if vehicle is motorized. Not applicable to bicycles, tricycles, rickshaws and animal-powered vehicles. **Data type:** Numeric **Data values:** **1 No special function:** No special function of the vehicle. **2 Taxi:** Licensed passenger car for hire with driver, without predetermined routes. **3 Vehicle used as bus:** Passenger road motor vehicle used for the transport of people. **4 Police / military:** Motor vehicle used for police / military purposes. **5 Emergency vehicle:** Motor vehicle used for emergency purposes (includes ambulances, fire service vehicles etc.). **8 Other:** Other special functions, not mentioned above. **9 Unknown:** It was not possible to record a special function. **Comments:** Important to evaluate the crash involvement of vehicles used for special uses.	N/A	N/A	N/A	2	N/A	1	N/A	N/A
28	Vehicle maneuver (what the vehicle was doing at the time of the crash	**Vehicle maneuver** **Definition:** The controlled maneuver for this motor vehicle prior to the crash. **Obligation:** Mandatory **Data type:** Numeric	N/A	N/A	1	2	N/A	N/A	N/A	N/A

		Data values: **1 Reversing:** The vehicle was reversing. **2 Parked:** Vehicle was parked and stationary. **3 Entering or leaving a parking position:** The vehicle was entering or leaving a parking position **4 Slowing or stopping:** The vehicle was slowing or stopping **5 Moving off:** The vehicle was still and started moving. Does not include vehicle leaving or entering a parking position. **6 Waiting to turn:** The vehicle was stationary, waiting to turn. **7 Turning:** The vehicle was turning (includes U-turns). **10 Changing lane:** The vehicle was changing lane. **11 Avoidance maneuver:** The vehicle changed its course in order to avoid an object on the carriageway (including another vehicle or pedestrian). **12 Overtaking vehicle:** The vehicle was overtaking another vehicle. **13 Straightforward / normal driving:** The vehicle was moving ahead away from any bend. **8 Other** **9 Unknown**								
	Person related indicators									
29	Person ID	**Person number** **Definition:** Number assigned to uniquely identify each person involved in the crash. **Obligation:** Mandatory **Data type:** Numeric (two-digit number, nn)	4	3	2	5	N/A	N/A	N/A	1

		Comments: The persons related to the first (presumed liable) vehicle will be recorded first. Within a specific vehicle, the driver will be recorded first, followed by the passengers. Allows the person record to be cross-referenced to crash, road and vehicle records to establish a unique linkage with the Crash ID and the Vehicle number.								
30	Occupant's vehicle number	**Occupant's vehicle number** **Definition:** The unique number assigned for this crash to the motor vehicle in which the person was an occupant. **Obligation:** Mandatory **Data type:** Numeric (two-digit number, nn) **Comments:** Allows the person record to be cross-referenced to the vehicle records, linking the persons to the motor vehicle in which they were travelling.	N/A	N/A	1	2	N/A	N/A	N/A	N/A
31	Pedestrian's linked vehicle number	**Pedestrian's linked vehicle number** **Definition:** The unique number assigned for this crash to the motor vehicle that collided with this person. The vehicle number assigned under to the motor vehicle that collided with this person. **Obligation:** Mandatory **Data type:** Numeric (two-digit number, nn, from V1) **Comments:** Allows the person record to be cross-referenced to the vehicle records, linking the person to the motor vehicle that struck them.	N/A	N/A	1	2	N/A	N/A	N/A	N/A
32	Date of birth	**Date of birth** **Definition:** Indicates the date of birth of the person involved in the crash.	3	2	5	4	N/A	N/A	N/A	1

		Obligation: Mandatory **Data type:** Numeric (date format – dd/mm/yyyy, 99/99/9999 if birth date unknown) **Comments:** Allows calculation of person's age. Important for analysis of crash risk by age group, and assessing effectiveness of occupant protection systems by age group. Key variable for linkage with records in other databases.								
33	Sex	**Sex** **Definition:** Indicates the sex of the person involved in the crash. **Obligation:** Mandatory **Data type:** Numeric **Data values:** **1 Male:** Based on identification documents / personal ID number or determined by the police. **2 Female:** Based on identification documents / personal ID number or determined by the police. **9 Unknown:** Sex could not be determined (police unable to trace person, not specified). **Comments:** Important for analysis of crash risk by sex. Important for evaluation of the effect of sex of the person involved on occupant protection systems and motor vehicle design characteristics.	3	2	5	4	N/A	N/A	N/A	1
34	Type of road user	**Type of road user** **Definition:** This variable indicates the role of each person at the time of the crash. **Obligation:** Mandatory **Data type:** Numeric **Data values:**	4	3	1	2	N/A	N/A	N/A	N/A

		1 Driver: Driver or operator of motorized or non-motorized vehicle. Includes cyclists, persons pulling a rickshaw or riding an animal. **2 Passenger:** Person riding on or in a vehicle, who is not the driver. Includes person in the act of boarding, alighting from a vehicle or sitting/stranding. **3 Pedestrian:** Person on foot, pushing or holding a bicycle, pram or a pushchair, leading or herding an animal, riding a toy cycle, on roller skates, skateboard or skis. Excludes persons in the act of boarding or alighting from a vehicle. **8 Other:** Person involved in the crash who is not of any type listed above. **9 Unknown:** It is not known what role the person played in the crash. **Comments:** Allows for analysis of crash risk by road user type (in combination with Vehicle type, V2). Important for evaluation of countermeasures designed to protect specific road users.								
35	Seating position	**Seating position** **Definition:** The location of the person in the vehicle at the time of the crash. **Obligation:** Mandatory for all vehicle occupants **Data type:** Numeric **Subfield: Row** **Data values:** **1 Front** **2 Rear** **3 Not applicable** (e.g. riding on motor vehicle exterior) **8 Other** **9 Unknown**	3	4	1	2	N/A	N/A	N/A	N/A

		Subfield: Seat **Data values:** **1 Left** **2 Middle** **3 Right** **4 Not applicable** (e.g. riding on motor vehicle exterior) **8 Other** **9 Unknown** **Comments:** Important for full evaluation of occupant protection programs.								
36	Injury severity	**Injury severity** **Definition:** The injury severity level for a person involved in the crash. **Obligation:** Mandatory **Data type:** Numeric **Data values:** **1 Fatal injury:** Person was killed immediately or died within 30 days, as a result of the crash. **2 Serious/severe injury:** Person was hospitalized for at least 24 hours because of injuries sustained in the crash. **3 Slight/minor injury:** Person was injured and hospitalized for less than 24 hours or not hospitalized. **4 No injury:** Person was not injured. **9 Unknown:** Injury severity was not recorded or is unknown. **Comment:** Important for injury outcome analysis, evaluation, and appropriate classification of crash severity (PD1). Important element for linkage with records in other databases.	2	3	5	4	N/A	N/A	N/A	1
37	Safety equipment	**Safety equipment**	3	2	1	4	N/A	5	N/A	N/A

		Definition: Describes the use of occupant restraints, or helmet use by a motorcyclist or bicyclist. **Obligation:** Mandatory **Data type:** Numeric **Subfield: Occupant restraints** **Data values:** **1 Seat-belt available, used** **2 Seat-belt available, not used** **3 Seat-belt not available** **4 Child restraint system available, used** **5 Child restraint system available, not used** **6 Child restraint system not available** **7 Not applicable:** No occupant restraints could be used on the specific vehicle (e.g. agricultural tractors). **8 Other restraints used** **9 Unknown:** Not known if occupant restraints were in use at the time of the crash. **10 No restraints used** **Subfield: Helmet use** **Data values:** **1 Helmet worn** **2 Helmet not worn** **3 Not applicable** (e.g. person was pedestrian or car occupant) **9 Unknown** **Comments:** Information on the availability and use of occupant restraint systems and helmets is important for evaluating the effect of such safety equipment on injury outcomes.								
38	Pedestrian maneuver	**Pedestrian maneuver**	3	N/A	1	2	N/A	N/A	N/A	N/A

		Definition: The action of the pedestrian immediately prior to the crash. **Obligation:** Mandatory **Data type:** Numeric **Data values** **1 Crossing:** The pedestrian was crossing the road. **2 Walking on the carriageway:** The pedestrian was walking across the carriageway facing or not facing traffic. **3 Standing on the carriageway:** The pedestrian was on the carriageway and was stationary (standing, sitting, lying etc.). **4 Not on the carriageway:** The pedestrian was standing or moving on the sidewalk or at any point beside the carriageway. **8 Other:** The vehicle or the pedestrian was performing a maneuver not included in the list of the previous values. **9 Unknown:** The maneuver performed by the vehicle or the pedestrian was not recorded or it was unknown. **Comments:** Provides useful information for the development of effective road design and operation, education and enforcement measures to accommodate pedestrians.								
39	Alcohol use suspected	**Alcohol use suspected** **Definition:** Law enforcement officer suspects that person involved in the crash has used alcohol. **Obligation:** Mandatory for all drivers of motorized vehicles, recommended for all non- motorists (pedestrians and cyclists).	2	1	3	4	N/A	N/A	N/A	N/A

		Data type: Numeric **Data values:** **1 No** **2 Yes** **3 Not applicable** (e.g. if person is not driver of motorized vehicle) **9 Unknown**								
40	Alcohol test	**Alcohol test** **Definition:** Describes alcohol test status, type and result. **Obligation:** Conditional (mandatory if alcohol use suspected) **Data type:** Numeric **Subfield: Test status** **Data values:** **1 Test not given** **2 Test refused** **3 Test given** **9 Unknown if tested** **Subfield: Test type** **Data values:** **1 Blood** **2 Breath** **3 Urine** **8 Other** **9 Test type unknown** **Subfield: Test result** **Data values** **1Pending** **9Result unknown**	4	1	2	3	N/A	N/A	N/A	N/A

		Comments: Alcohol-related crashes are a major road safety problem. Information on alcohol involvement in crashes facilitates evaluation of programs to reduce drink-driving.								
41	Drug use	**Drug use** **Definition:** Indication of suspicion or evidence that person involved in the crash has used illicit drugs. **Obligation:** Mandatory for all drivers of motorized vehicles, recommended for all non-motorists (pedestrians and cyclists). **Data type:** Numeric **Data values:** **1 No suspicion or evidence of drug use** **2 Suspicion of drug use** **3 Evidence of drug use** (further subfields can specify test type and values) **4 Not applicable** (e.g. if person is not driver of motorized vehicle) **9 Unknown**	2	1	3	4	N/A	N/A	N/A	N/A
42	Driving license issue date	**Driving license issue date** **Definition:** Indicates the date (month and year) of issue of the person's first driving license, provisional or full, pertaining to the vehicle they were driving. **Obligation:** Mandatory for all drivers of motorized vehicles **Data type:** Numeric (MMYYYY) **Data values:** **Value (MMYYYY)** **1 Never issued a driving license** **9 Date of issue of first license unknown**	N/A	N/A	2	3	1	N/A	N/A	4

		Comments: Allows calculation of number of years' driving experience at the time of crash.								
43	Age	**Age** **Definition:** The age in years of the person involved in the crash. **Data type:** Numeric **Comments:** Derived from Date of birth and Crash date. Important for analysis of crash risk by age group, and assessing effectiveness of countermeasures by age group.	4	3	5	6	2	N/A	N/A	1
44	Hit and run	**Hit and run** **Definition:** The behavior of a driver of a vehicle who is involved in a collision with another vehicle, property or human being, who knowingly fails to stop to give his/her name, license number, and other information as required by statute to the injured party, a witness, or law enforcement officers. **Data type:** *Yes* or *No* **Comments**: Information captured when more than one vehicle involved in the crash but only one vehicle's data available.	N/A	N/A	1	2	N/A	N/A	N/A	N/A