



Serious injuries among motorcyclists

Summary report

Date of publication: 30 April 2026

VISION
ZERO



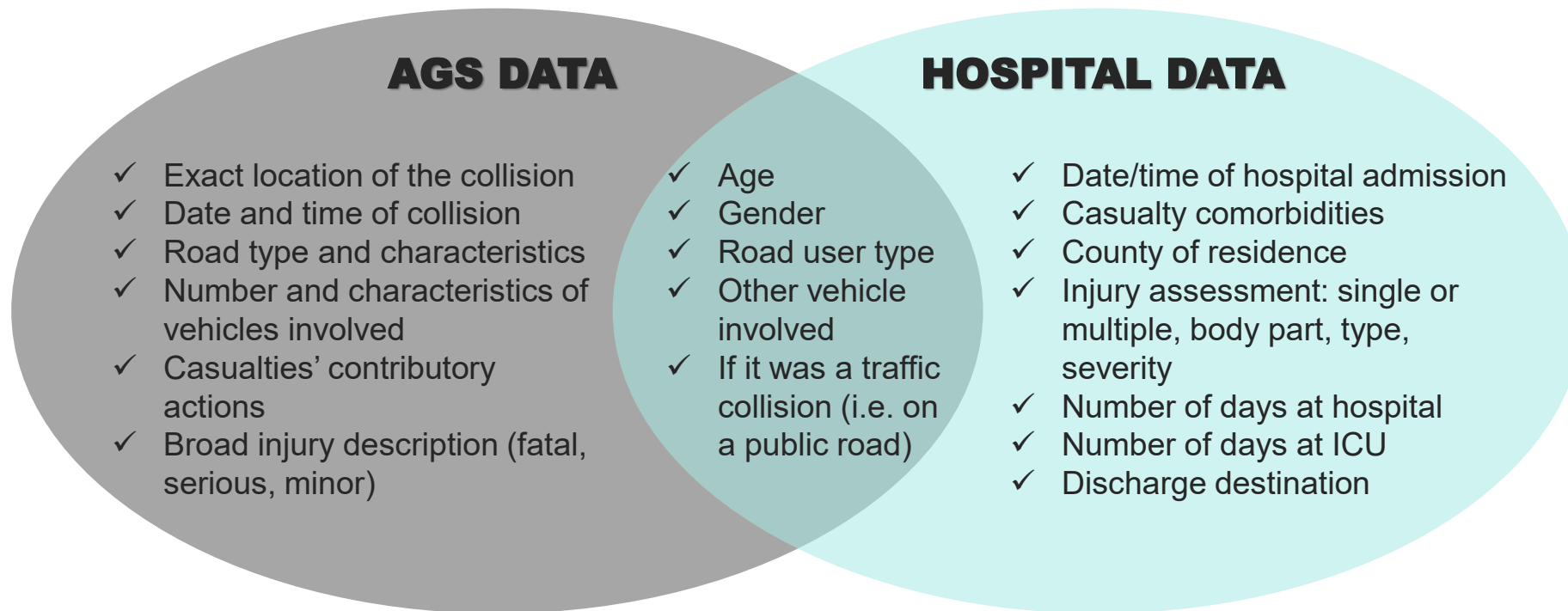
Background

- This report summarises the key characteristics of seriously injured motorcyclists based on the analysis of the most recent data available at the time of publication.
- **The first section** of this report was prepared using data from the Irish Road Traffic Collision Database (**2021-2025**), which is based on collision records transferred from An Garda Síochána (AGS) to the RSA.
 - AGS information in this report is provisional and subject to change. This means that the serious injury statistics presented may change at a later date when new information becomes available.
- **The second section** of this report was prepared using data from the Hospital In-Patient Enquiry (HIPE) Database (**2020-2024**), which is based on hospital discharge information as recorded in Irish acute hospitals.
 - Hospital data include all casualties who were admitted to hospital as in-patients on an emergency basis, with at least one injury from a road traffic collision.
 - For more details on the methodology followed to process hospital data, please see [this report](#). You can also find FAQs on hospital data in this [link](#).



What type of information can we obtain from AGS and hospital data?

- Both data sources are complementary. AGS data describes the collision characteristics, and hospital data describes the casualty's health outcomes, including an accurate injury assessment.
- Some information can be found in both AGS and hospital data.



Definitions

AGS and hospital data

- In **AGS data**, a serious injury is one for which the person is detained in hospital as an in-patient, or any of the following injuries whether or not detained in hospital: fractures, concussions, internal injuries, crushing, severe cuts and lacerations, or severe general shock requiring medical treatment.
- In **hospital data**, we follow a medical definition of a serious injury, based on an international validated injury severity scoring scale, the Abbreviated Injury Scale (AIS)*.
 - The AIS scale allows to assign an injury severity score between 1 (minor) to 6 (critical) to each injury sustained by hospitalised casualties. A casualty may have one or more injuries recorded in their hospital chart. We first assign an AIS score to each injury, and then determine the maximum AIS score assigned to each casualty.
 - **Casualties with clinically moderate injuries** are those with a maximum AIS score of 2 or less (MAIS2-).
 - **Casualties with clinically serious injuries** are those with at least one injury with a maximum AIS score of 3 or more (MAIS3+).
 - We add the number of casualties having MAIS3+ and MAIS2- scores to obtain the total number of **hospitalised casualties**.

*Association for the Advancement of Automotive Medicine (2016). Abbreviated Injury Scale (c) 2005 Update 2008. (T. Gennarelli, & e. Woodzin, Eds.) Chicago, Illinois.



Section one

Serious injuries among
motorcyclists as recorded
in AGS data, focused on
collision characteristics

(2021-2025)

Serious injuries among motorcyclists in An Garda Síochána (AGS) data

Over 2021-2025, AGS recorded 954 motorcyclists as seriously injured following a road traffic collision. The absolute number of serious injuries among motorcyclists was the highest in 2022 (198).

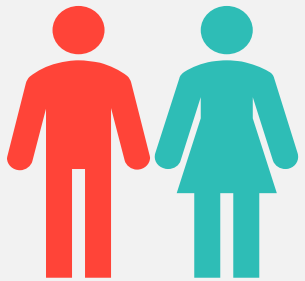


VISION
ZERO

RSA

CHARACTERISTICS OF SERIOUS INJURIES AMONG MOTORCYCLISTS IN IRELAND (SOURCE: AGS DATA)

79% AGED
16-55 YEARS



92% MALES
8% FEMALES



27% OF
SERIOUS
INJURIES
OCCURRED IN
COUNTY
DUBLIN



32% WERE INJURED IN SINGLE-VEHICLE
COLLISIONS

- 87% OF THESE MOTORCYCLISTS WERE DRIVING FORWARD
- 51% LOST CONTROL
- 21% COLLIDED WITH A ROAD EDGE-DITCH



66% WERE INJURED IN
MULTI-VEHICLE COLLISIONS

- 77% OF THESE MOTORCYCLISTS WERE DRIVING FORWARD
- 11% WERE ATTEMPTING TO OVERTAKE
- FAILURE TO OBSERVE WAS THE MOST FREQUENTLY NOTED ACTION (25%)
- THE OTHER VEHICLE INVOLVED WAS MOST LIKELY A CAR



56% OCCURRED BETWEEN MAY & SEPTEMBER

39% OCCURRED BETWEEN SATURDAY &
SUNDAY



66% OCCURRED BETWEEN 12PM AND 8PM

83% OCCURRED IN DAY LIGHT HOURS



70% OCCURRED ON A STRAIGHT ROAD

38% OCCURRED AT A JUNCTION



* Note, figures
for 2022-2025
are provisional
and subject to
change.

Section two

Hospitalised motorcyclists as
recorded in hospital data, focused on
health outcomes

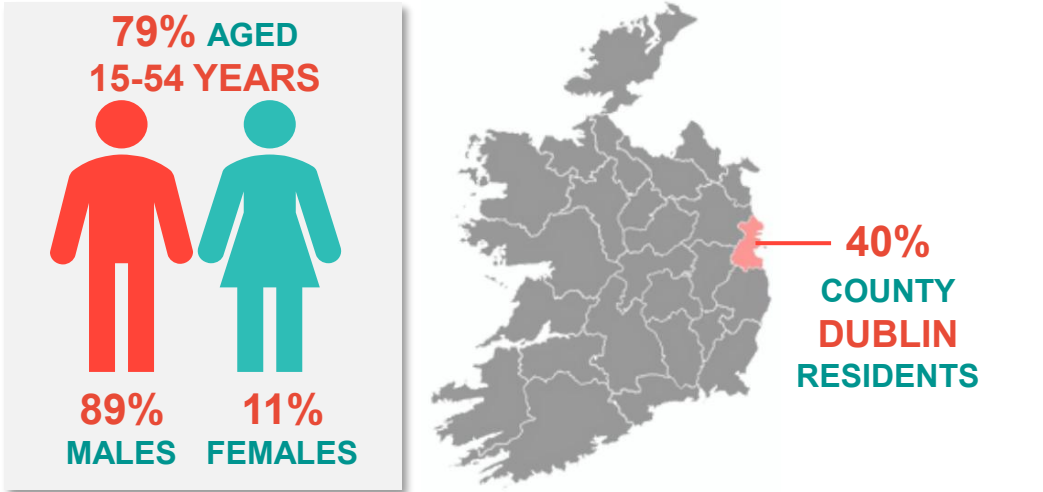
(2020-2024)

Serious injuries among motorcyclists in hospital and An Garda Síochána (AGS) data

Over 2020-2024, 1,648 motorcyclists were admitted to hospital following a road traffic collision. Over the same period, 906 motorcyclists were recorded as seriously injured by AGS. There may be multiple factors explaining this discrepancy, such as AGS not being alerted of a crash, the definitions of injury used in each case, among others.

All hospitalised	1648
AGS serious injuries	906

CHARACTERISTICS OF HOSPITALISED MOTORCYCLISTS IN IRELAND (SOURCE: HOSPITAL DATA)

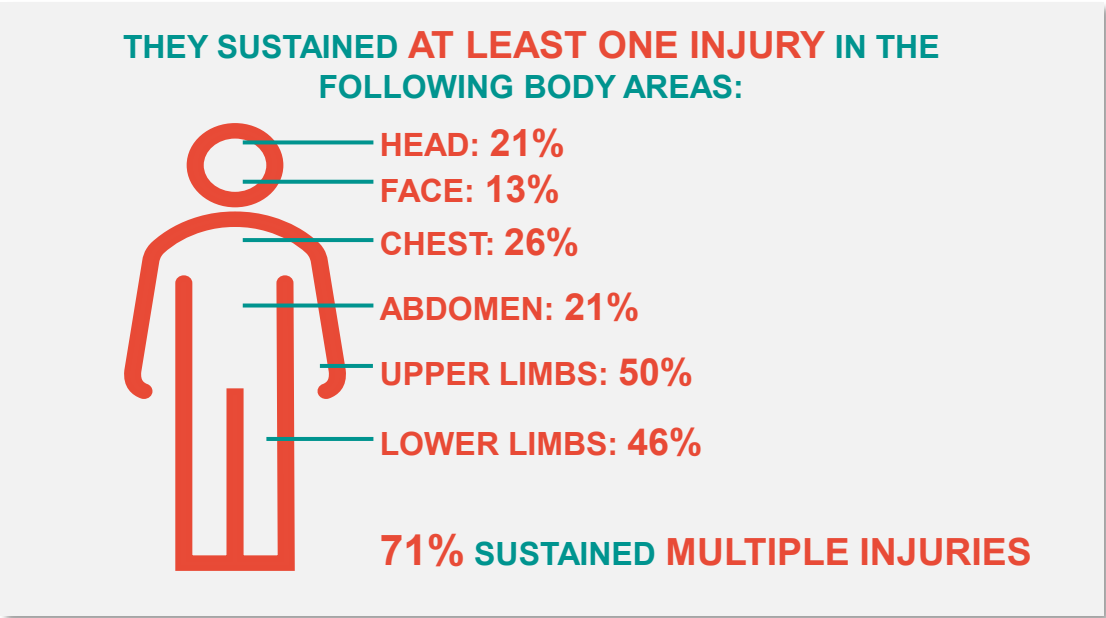


80% WERE DRIVING THE MOTORCYCLE, AND 7% WERE PASSENGERS*

50% WERE INJURED IN SINGLE-VEHICLE COLLISIONS*

35% WERE INJURED IN MULTI-VEHICLE COLLISIONS*

MOST MULTI-VEHICLE COLLISIONS WERE WITH A CAR, TRUCK OR VAN



THEY SPENT 7 DAYS AT HOSPITAL AS IN-PATIENTS

14% WERE SENT TO ANOTHER HEALTHCARE FACILITY FOR CONTINUED CARE

26% SUSTAINED CLINICALLY SERIOUS INJURIES



* Note: 13% of motorcyclists had an unknown vehicle position, and 15% had an unspecified collision type.

Clinically serious injuries among motorcyclists in hospital data

Of all hospitalised motorcyclists over 2020-2024, 432 (26%) sustained clinically serious injuries, with a higher probability of having long-term consequences on the casualty's life. To determine injury severity in hospital data, we use an internationally validated injury severity scale, the Abbreviated injury Scale (AIS).

Clinically moderate injuries

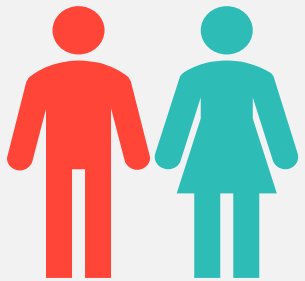
1216

Clinically serious injuries

432

CHARACTERISTICS OF MOTORCYCLISTS WITH CLINICALLY SERIOUS INJURIES IN IRELAND

77% AGED
15-54 YEARS



94% MALES
6% FEMALES



40%
COUNTY
DUBLIN
RESIDENTS

81% WERE DRIVING THE MOTORCYCLE, AND 7% WERE PASSENGERS



HOSPITAL ADMISSIONS: 32% OVER SUMMER, AND 33% BETWEEN SUNDAY AND MONDAY



44% WERE INJURED IN SINGLE-VEHICLE COLLISIONS

40% WERE INJURED IN MULTI-VEHICLE COLLISIONS



MOST SUSTAINED A SINGLE SERIOUS INJURY:



HEAD: 19%

CHEST: 15%

SPINAL CORD: 1%

ABDOMEN: 3%

LOWER LIMBS: 29%

31% SUSTAINED MULTIPLE SERIOUS INJURIES



THEY SPENT 14 DAYS AT HOSPITAL AS IN-PATIENTS

30% SPENT AT LEAST ONE NIGHT IN A CRITICAL CARE AREA

26% WERE SENT TO ANOTHER HEALTHCARE FACILITY FOR CONTINUED CARE



VISION
ZERO



* Note: 11% of motorcyclists had an unknown vehicle position, and 17% had an unspecified collision type.



To see the full reports on motorcyclist serious injuries, please follow this [link](#).

VISION
ZERO