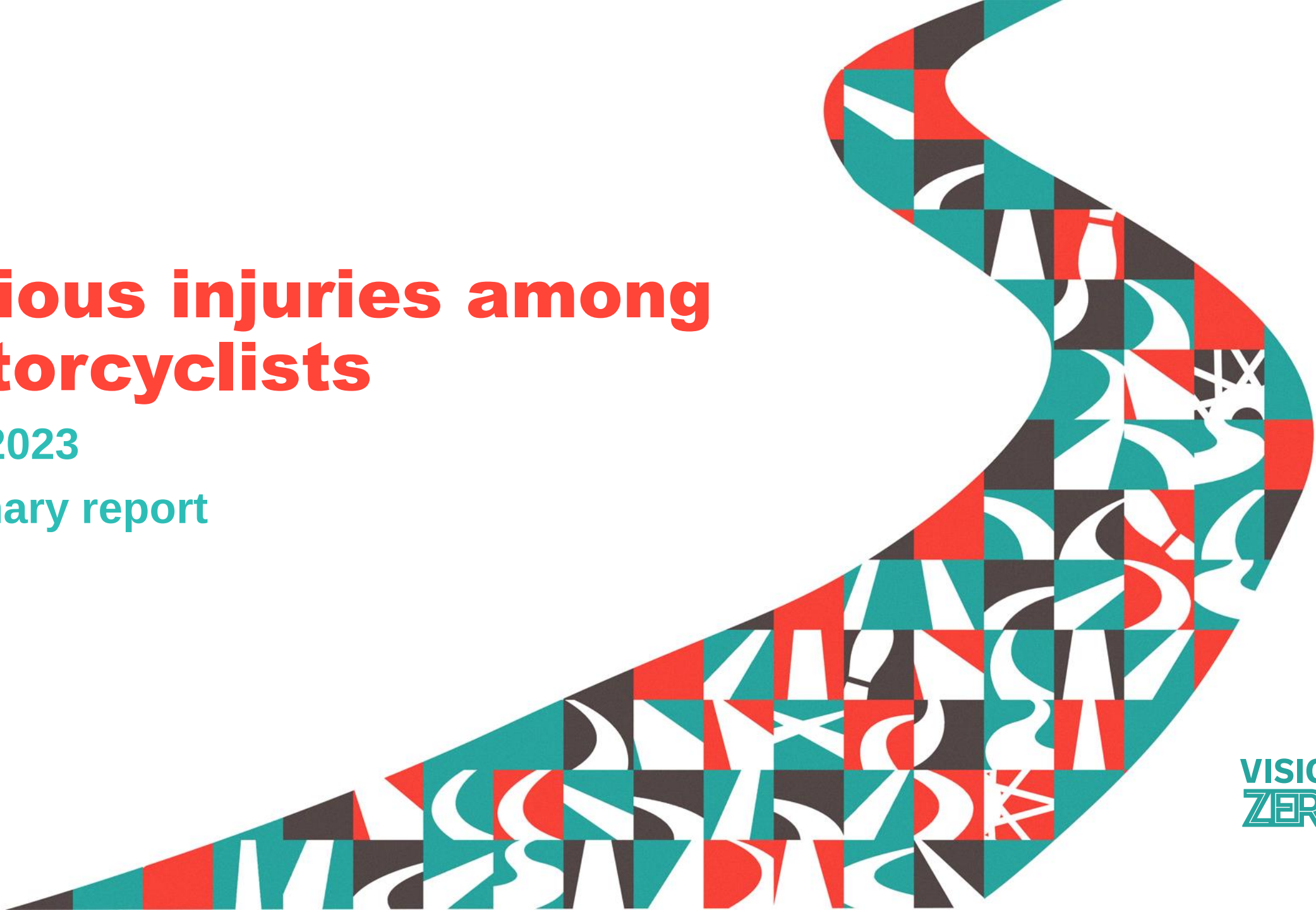




Serious injuries among motorcyclists

2019-2023

Summary report



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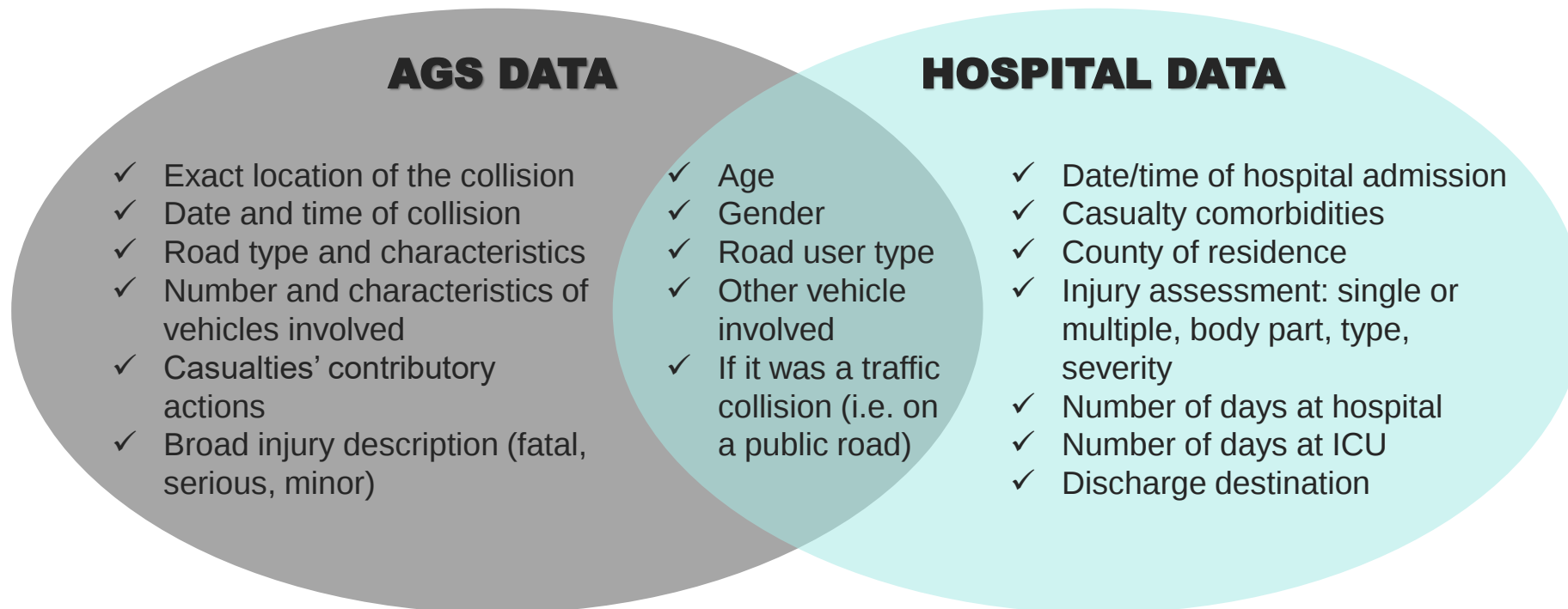
Background

- This presentation summarises the key characteristics of seriously injured motorcyclists over the years 2019-2023.
- **The first section** of this report was prepared using data from the Irish Road Traffic Collision Database, 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, 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 hospitalised casualty. 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

(2019-2023)

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

Over 2019-2023, AGS recorded 921 motorcyclists as seriously injured following a road traffic collision. The absolute number of serious injuries among motorcyclists was the highest in 2019 (226).

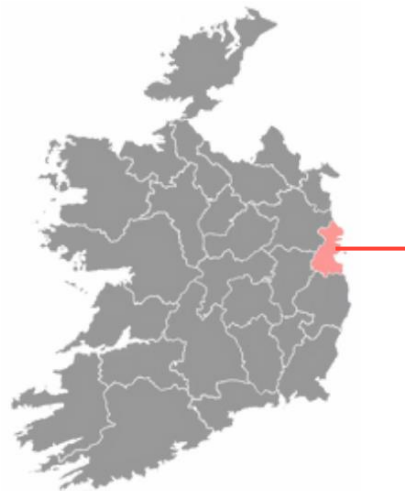
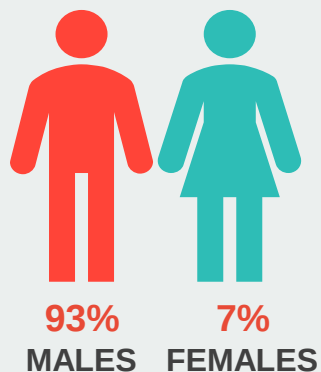


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CHARACTERISTICS OF SERIOUS INJURIES AMONG MOTORCYCLISTS IN IRELAND (SOURCE: AGS DATA)

83% AGED
16-55 YEARS



30% OF
SERIOUS
INJURIES
OCCURRED IN
COUNTY
DUBLIN



33% WERE INJURED IN
SINGLE-MOTORCYCLIST COLLISIONS

- 87% OF THESE MOTORCYCLISTS WERE DRIVING FORWARD
- 49% LOST CONTROL
- 22% COLLIDED WITH A 'ROAD EDGE-DITCH'



66% WERE INJURED IN
MULTI-VEHICLE COLLISIONS

- 80% OF THESE MOTORCYCLIST WERE DRIVING FORWARD
- FAILURE TO OBSERVE WAS THE MOST FREQUENTLY NOTED ACTION (23%) AMONG THEM
- THE OTHER VEHICLE INVOLVED WAS MOST LIKELY A CAR



34% OCCURRED OVER SUMMER

36% OCCURRED OVER THE WEEKEND



52% WERE INJURED ON AN URBAN AREA

82% OCCURRED IN DAY LIGHT



70% WERE INJURED ON A STRAIGHT ROAD

37% WERE INJURED ON A JUNCTION



* Note, figures for 2020-2023 are provisional and subject to change.

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Section two

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

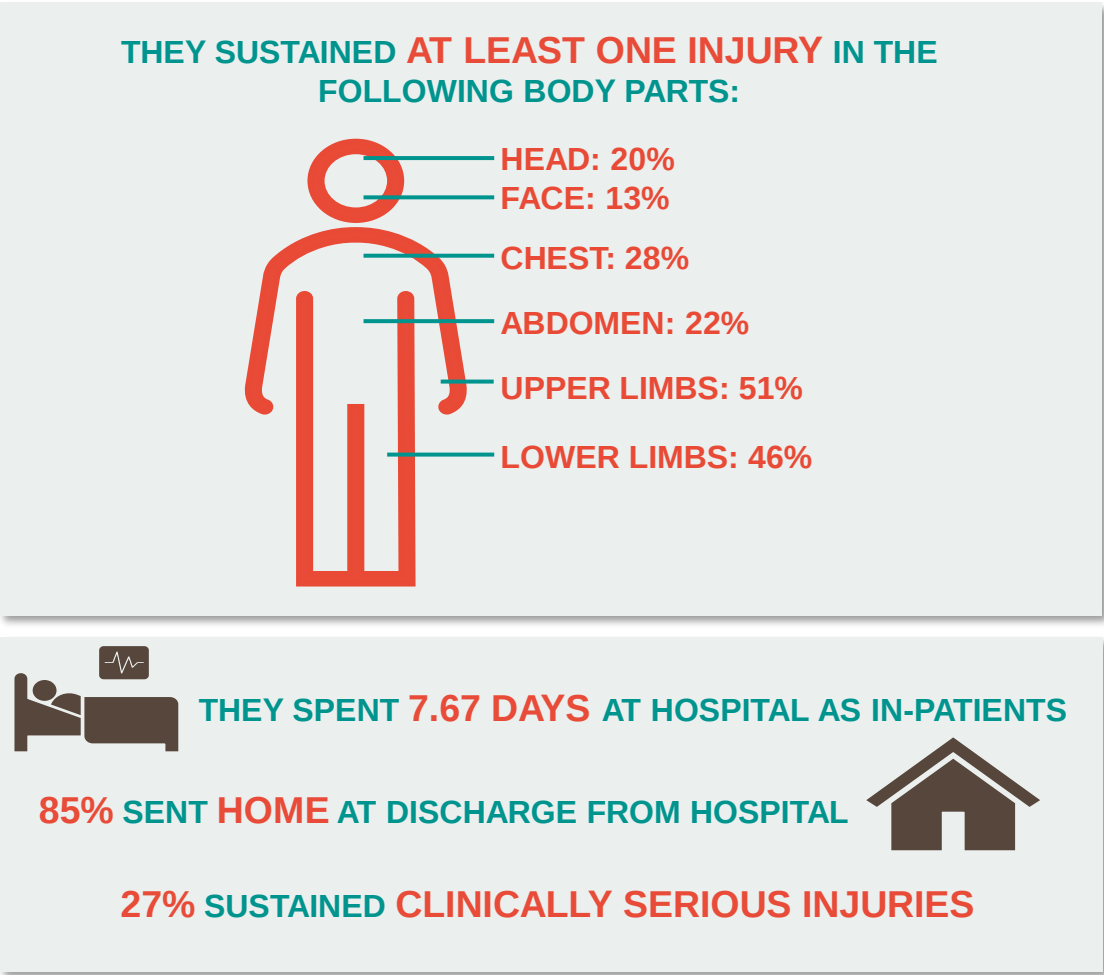
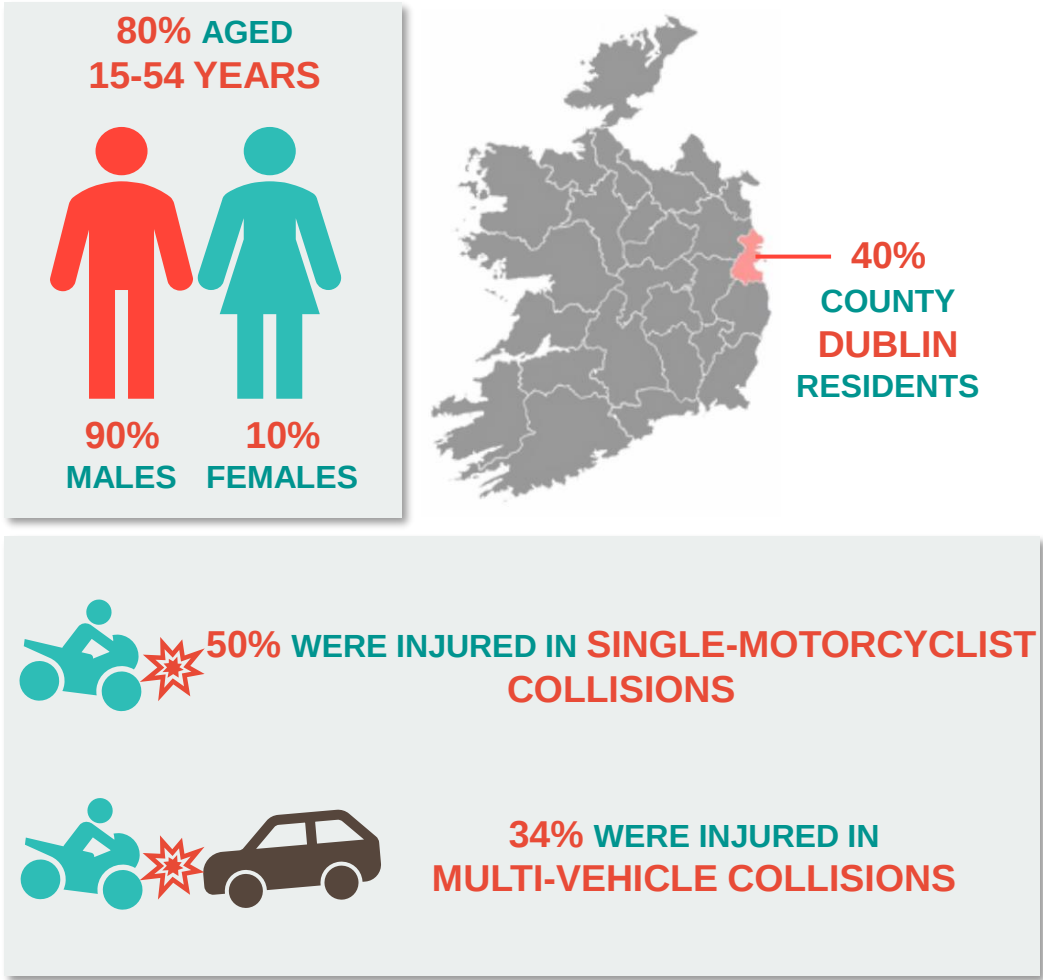
(2019-2023)

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

Over 2019-2023, 1,556 motorcyclists were admitted to hospital following a road traffic collision. Over the same period, 921 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.



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



Clinically serious injuries among motorcyclists in hospital data

Of all hospitalised motorcyclists over 2019-2023, 426 (27%) 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

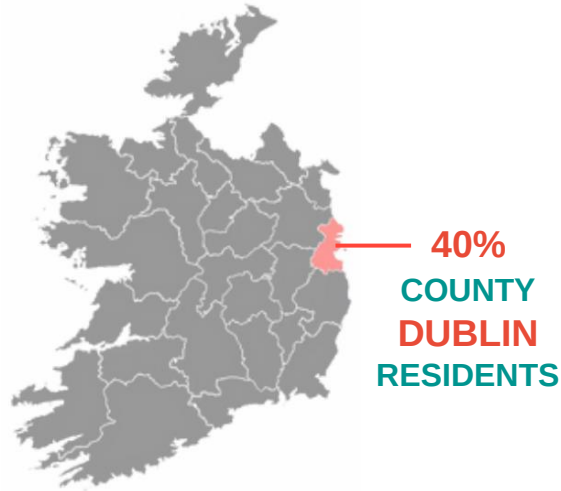
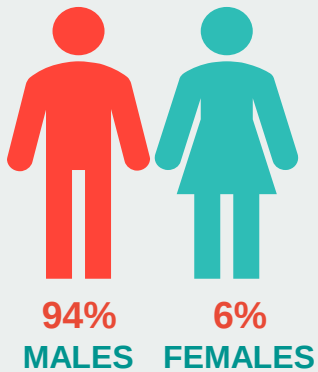
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Clinically serious injuries

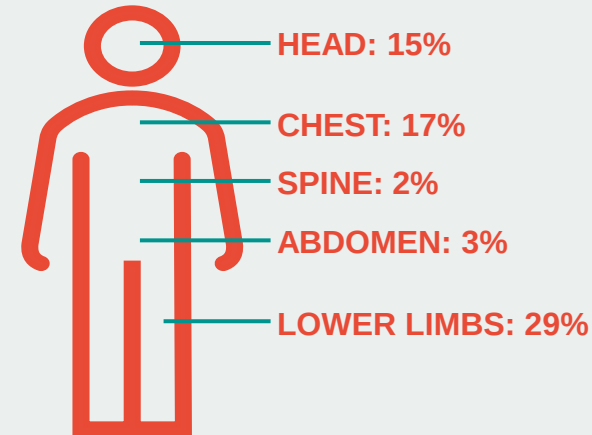
426

CHARACTERISTICS OF MOTORCYCLISTS WITH CLINICALLY SERIOUS INJURIES IN IRELAND

78% AGED
15-54 YEARS



THE MAJORITY SUSTAINED A SINGLE SERIOUS INJURY:



32% SUSTAINED MULTIPLE SERIOUS INJURIES IN THE SAME OR DIFFERENT BODY PARTS



32% ADMITTED TO HOSPITAL OVER SUMMER

32% ADMITTED TO HOSPITAL OVER THE WEEKEND



44% WERE INJURED IN SINGLE-MOTORCYCLIST COLLISIONS



39% WERE INJURED IN MULTI-VEHICLE COLLISIONS



THEY SPENT 14.31 DAYS AT HOSPITAL AS IN-PATIENTS



71% SENT HOME AT DISCHARGE FROM HOSPITAL

24% WERE SENT TO ANOTHER HOSPITAL FOR CONTINUED CARE



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* If you have further questions on serious injuries in hospital data, please visit our FAQs in this [link](#).



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