REDUCING PEDESTRIAN FALLS

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WHO IS A PEDESTRIAN?

• Normally, walking on foot

In Sweden we also include persons using:

• Kick-bikes

• Skateboards

• Inlines

• Wheelchairs

Photo: Jenny Eriksson

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DEFINITION - PEDESTRIAN FALLS

- It´s not defined as a road traffic accident because no other vehicle was involved.

- But! It could involve an interaction with other road users, such as make way.

Photo: Andrey Popov/mostphotos.com

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REDUCING PEDESTRIAN FALLS - TARGET IN SWEDEN

The Vision Zero Collaboration Group decided this target:

Reduce the number of <u>seriously injured</u> pedestrians in <u>falls</u> in road traffic by 25 % between 2020 and 2030

should be tracked in the same systematic manner as the government's interim targets.

Source: https://trafikverket.diva-portal.org/smash/get/diva2:1779579/FULLTEXT01.pdf

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SWEDISH DATA AND DEFINITION

- Data collected at A&Es (all units in Sweden)

- Includes self reported data as well as data from medical records.

- Injury severity: Classified by health care professionals using AIS-codes

- Though in Sweden we use the definition "Seriously injured": Someone who has suffered at least a 1% permanent medical impairment as a result of a road traffic accident. It´s based on AIS-codes.
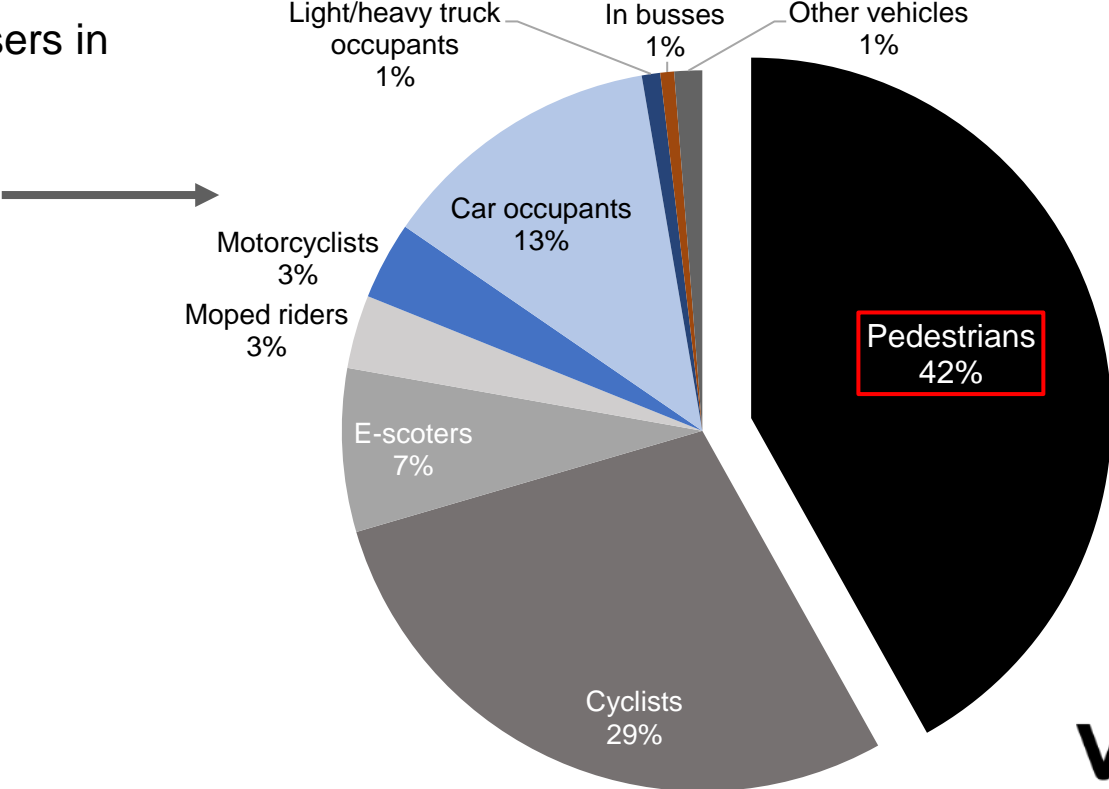
Photo: Roland Magnusson/mostphotos.com

How to calculate Seriously injured:
Malm, S., Krafft, M., Kullgren, A., Ydenius, A., & Tingvall, C. (2008). Risk of permanent medical impairment (RPMI) in road traffic accidents. Ann Adv Automot Med, 52, 93-100.
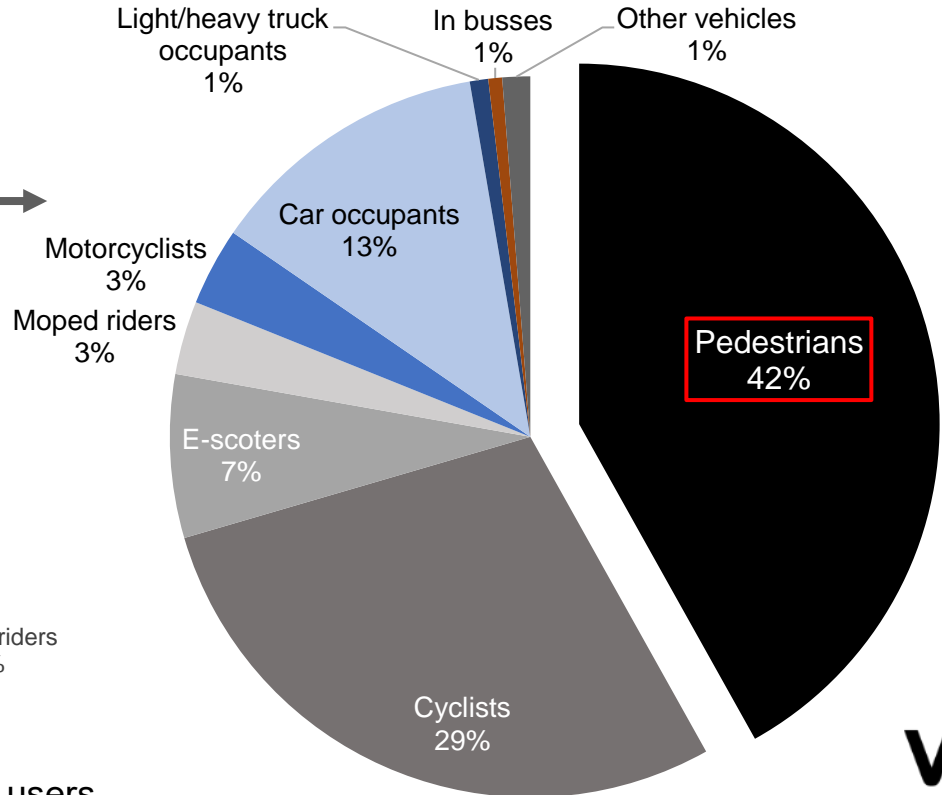
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SERIOUSLY INJURED ROAD USERS, 2022

- 37,000 registered road users in Strada hospital (A&Es)

- 7,600 seriously injured, pedestrian falls included

Pie chart:
- Light/heavy truck occupants 1%
- In busses 1%
- Other vehicles 1%
- Car occupants 13%
- Motorcyclists 3%
- Moped riders 3%
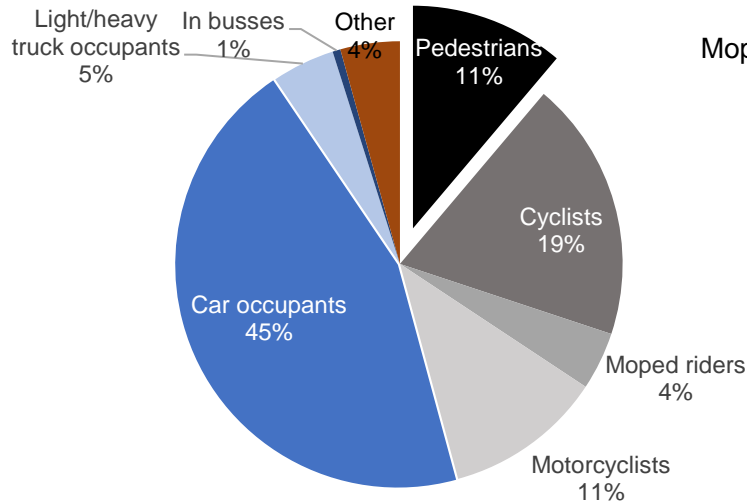- E-scoters 7%
- Cyclists 29%
- Pedestrians 42%

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SERIOUSLY INJURED ROAD USERS, 2022

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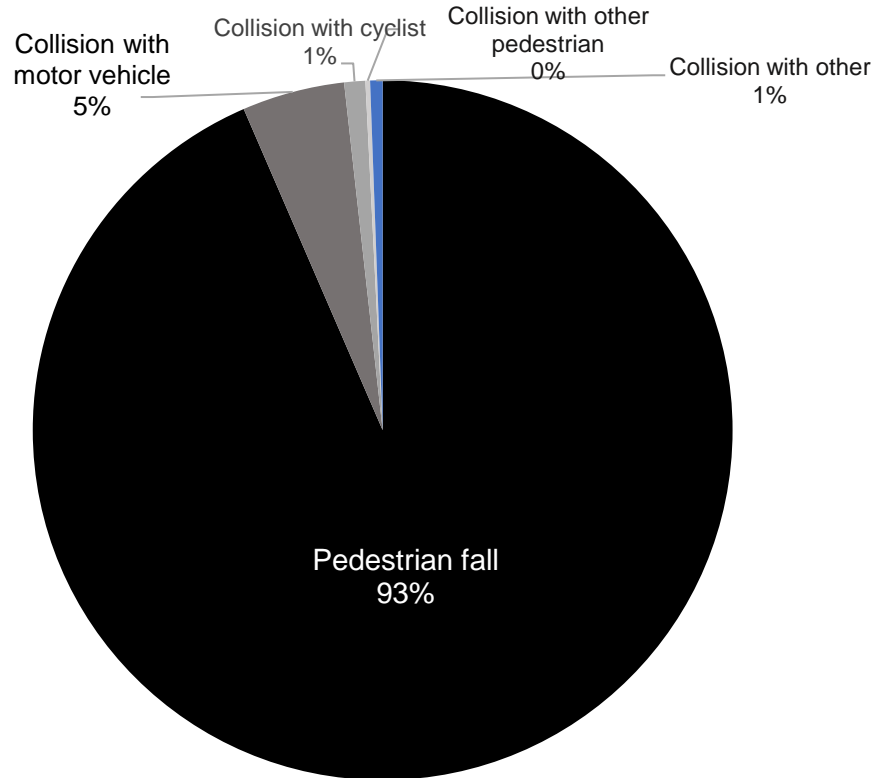- 7,600 seriously injured, pedestrian falls included

Left pie chart:
- Pedestrians 11%
- Cyclists 19%
- Moped riders 4%
- Motorcyclists 11%
- Car occupants 45%
- Light/heavy truck occupants 5%
- In busses 1%
- Other 4%

1,924 police reported "seriously injured" road users

Right pie chart:
- Pedestrians 42%
- Cyclists 29%
- E-scoters 7%
- Moped riders 3%
- Motorcyclists 3%
- Car occupants 13%
- Light/heavy truck occupants 1%
- In busses 1%
- Other vehicles 1%

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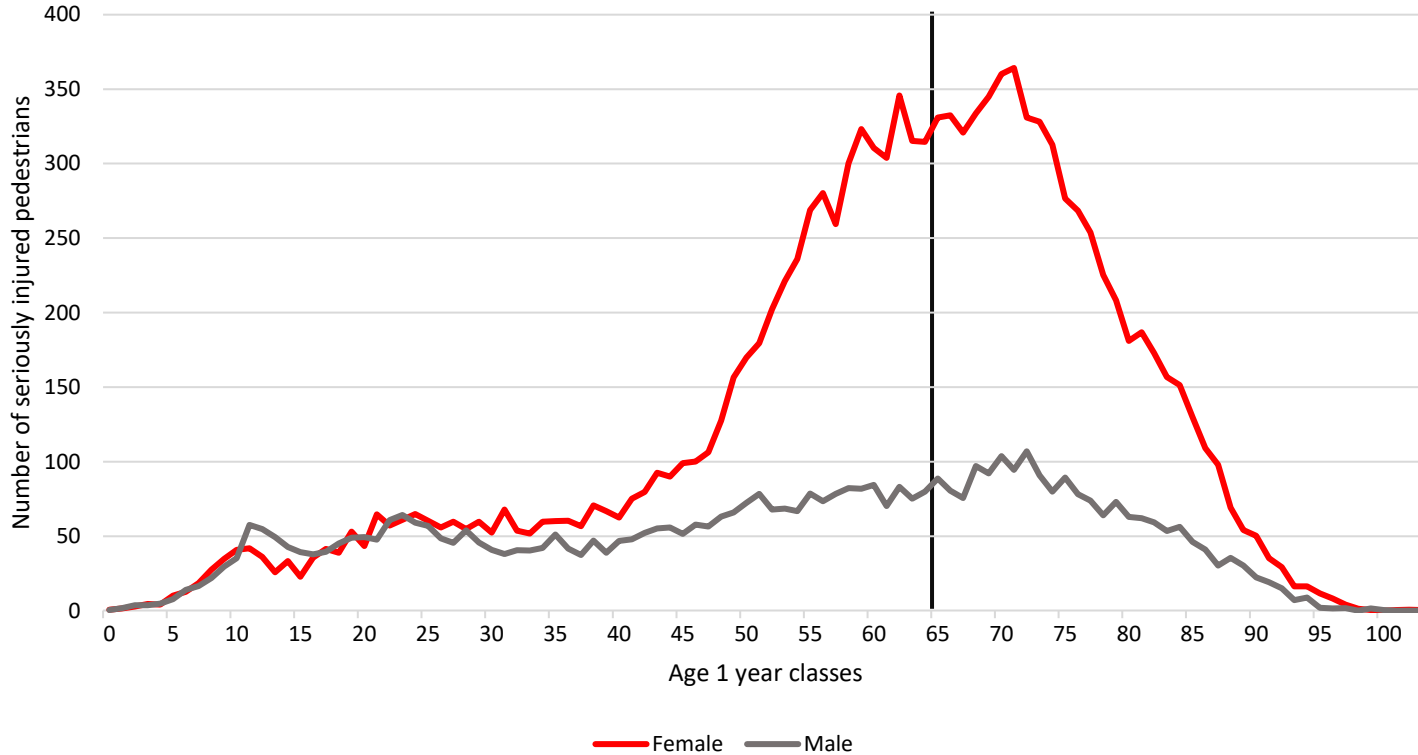# TYPE OF ACCIDENT, 2022

Number of seriously injured
pedestrians: 3,200

PEDESTRIAN FALLS, AGE-DISTRIBUTION

Source: Strada hospital, 6-year period 2014–2019

PEDESTRIAN FALLS, GENDER AND AGE

Number of seriously injured pedestrians

Age 1 year classes

Female — Male

THREE COMMON CAUSES

- Slippery road surface due to ice/snow (60 %)

- Uneven surface/potholes (17 %)

- Stumbled on a curb (10 %)

Photo: Maria Sbytova/mostphotos.com

Photo: Anna Niska

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PEDESTRIAN FALLS AT DIFFERENT PLACE TYPES

Number of seriously injured pedestrians

Place type	Value
Sidewalk/pedestrian path	~1400
Street/road	~820
Parking lot/area	~210
Intersection	~70
Square/plaza	~70
Bus/tram stop	~55
Other	~45
Unknown	~260

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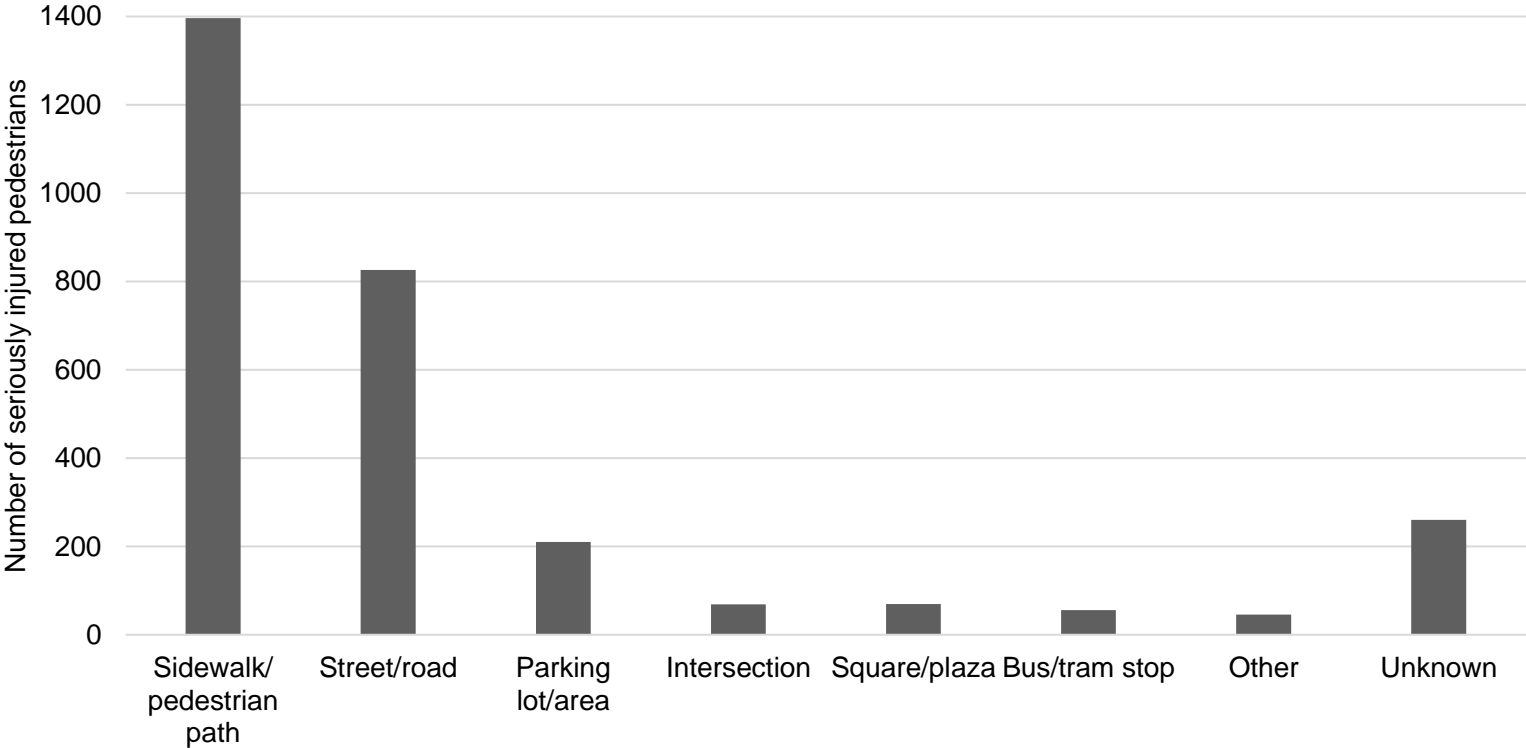
INJURIES, WERE ON THE BODY?

	All injuries (N=99,032)	Seriously Injuries (N=20,002)	EU-standard, AIS 3+ (N=4,042)
Head	4%	3%	15%
Face	2%	1%	3%
Upper extremity	35%	54%	7%
Thorax	1%	0%	4%
Spine	1%	2%	3%
Lower Extremity and Pelvis	18%	36%	51%
External (skin) and Thermal injuries	38%	3%	17%
Total	100%	100%	100%

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Source: Strada hospital, 6-year period 2014–2019
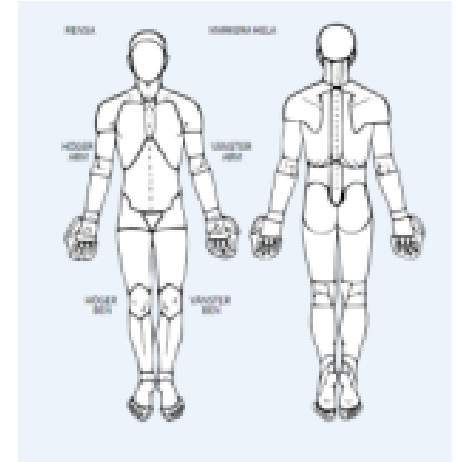
PEDESTRIAN FALLS – FATALLY INJURED

- Are not included in the official statistics.

- In Strada hospital-database there were 61 registered fatally injured pedestrians during 2014-2019. At least 29 of those were due to the accident.

- Most elderly 75+ (70%), 65-74 (14%). Common: Falling and hit the head. Some of them hitting the head against a curb, or when slipping on ice/snow.

- Compare to 220 pedestrians who were fatally injured in collisions during the period.

Source: Strada hospital (A&Es)

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SUMMARY – PEDESTRIAN FALLS

- The most common group (42 %) of seriously injured road users

- More than 90 % was caused due to a fall

- Women 50+ are overrepresented

- Elderly, yes, but also in working age

- If you don't measure, then you don´t know!

The costs of pedestrians falls in traffic environment are estimated to be SEK 40 billions (approx. EUR 3.5 billions) per year

Photo: Jan-Erik Kamperman/mostphotos.com

ACTIONS TO REDUCE THE NUMBER OF INJURED

- Better (winter) maintenance

- Good evenness on the surface

- Spikes on shoes/better shoe soles

Photo: Göran Blomqvist

Photo: Anna Niska

Photo: Jenny Eriksson

THANKS FOR YOUR ATTENTION!

- Source (mostly from): VTI rapport 1133 (diva-portal.org)

Oskyddade trafikanters inblandning i olyckor och deras skadeutfall

En jämförande studie mellan fotgängare, cyklister, mopedister och motorcyklister

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VTI rapport 1133
Utgivningsår 2022
vti.se/publikationer

In Swedish, but with an English summary

Photo: Mattias Tunholm

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