

Fatal single bicycle accidents

DUS (Extended Statistics on Fatal Accidents)
2010-2019

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Fatal single bicycle accidents 2010-2019

Single bicycle accidents

- Danish accident statistic = Police reported accidents
- Many of the bicycle accidents with minor injuries is not reported by the police. Especially single bicycle accidents

Purpose of analysis

- Gather knowledge about single bicycle accident using DUS (Extended Statistics on Fatal Accident)

What is DUS (Extended Statistics on Fatal Accident)?

- Cooperation between Vejdirektoratet, police and municipalities since 2010
- Extra investigation of fatal road accidents than normal police report
- Inspection with police of the scene of the accident
- Extra information from the police's car inspector
- Final report of each fatal accident with determination of accident factors and injury factors



Ulykkesfaktor

En ulykkesfaktor er forhold ved ulykken, som vurderes med stor sandsynlighed at have haft betydning for ulykkens opståen.

Hvis en eller flere ulykkesfaktorer ikke havde været til stede under en ulykke, er det vurderet, at ulykken sandsynligvis ikke ville være sket.

Skadesfaktor

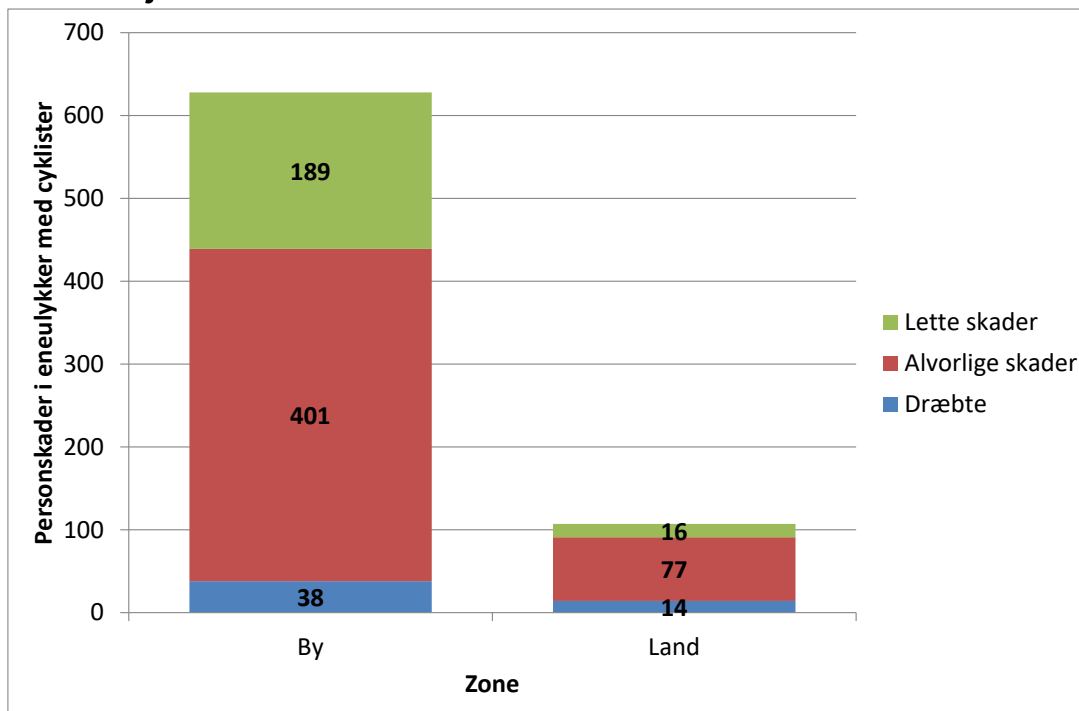
En skadesfaktor er forhold ved ulykken, som i den givne ulykke med stor sandsynlighed har haft betydning for skadens omfang og alvorlighed.

Hvis en eller flere skadesfaktorer ikke havde været til stede under ulykken, er det vurderet, at personskaderne på den dræbte sandsynligvis ville have været mindre alvorlige, eller at der ikke ville være sket personskade.

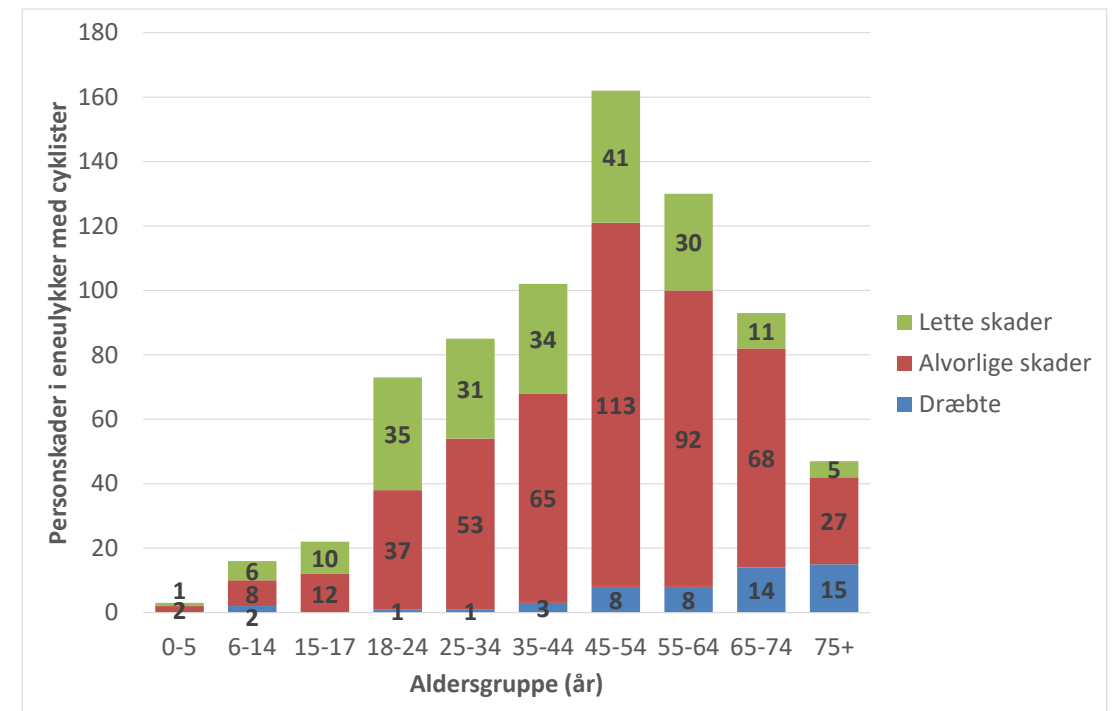
Data

- Total injuries 735 in 728 accidents 2010-2019 (including fatal)
- 52 fatal single bicycle accidents 2010-2019

Injuries in urban and rural areas



Age and injuries



Data

- Sorted DUS data
 - No DUS data collection from 2016 (6 accidents)
 - Collisions with train (3 accidents)
 - Mobility scooters (5 accidents)
- In total 38 fatal accidents in our analysis

Results

- Accident factors (can be more than one)
 - Road users (cyclist)
 - Road and surroundings
 - Vehicle (bike)
- 28 out of 38 accidents have a minimum one factor related to the cyclist

Factors

Road users

- 11+ 6 accidents with inattention or lack of orientation
- 9 accidents with speed
- 8 accidents with intoxication

Road and surroundings

- 5 accidents with signs and markings
- 4 accidents with inappropriate road design
- 3 accidents with objects on the road

Vehicle

- 2 accidents with faulty brakes
- 2 accidents with light/reflector
- 1 accidents with steering and 1 with tires and 1 with baggage on the bike (3 in total)

Results

- Accident factors (can be more than one)
 - Road users (cyclist)
 - Road and surroundings
 - Vehicle (bike)
- 28 out of 38 accidents have a minimum one factor related to the cyclist
- Total of 71 factors in the 38 accidents

	DUS rapport	Ulykkesfaktor
Trafikanter	0	Hastighed > grænse
	9	Hastighed i øvrigt
	2	Placering forkert
	5	Manøvre/reaktion mang./forkert
	11	Opmærksomhed mang./utilstræk.
	6	Orientering mang./utilstræk.
	1	Chancebetonet kørsel
	8	Påvirket tilstand
	4	Fysisk tilstand svækket
	1	Uligevægtig sindstilstand
Vej og omgivelser	4	Vejudformning uhensigt
	2	Rabatudformning uhensigt
	5	Afmærk./skilt mang./misvis.
	2	Vedligehold manglende
	3	Genstande på kørebanen
	1	Vejr, føre m.m.
Køretøj	2	Bremser
	1	Styretøj
	1	Dæk
	2	Lys/refleks
	0	Spejlindstilling
	1	Belæsning
	0	Udsyn
	71	Antal i alt

Results

- Injury factors
 - Road users (cyclist)
 - Road and surroundings
 - Vehicle (bike)
- In 20 of the 38 accidents, it is assessed that a lack of helmet made the injuries worse
- 31 injury factors in total

	DUS rapport	Skadesfaktorer
Trafikanter	20	Hjelm
	3	Hastighed
Vej og omgivelser	4	Faste genstande
	3	Skråning
	1	Autoværn
	31	Antal i alt

Results

Other conditions

- Roadworks – 5 accidents
- Sport/recreational cyclist – 7 accidents
- Darkness and alcohol/drugs – 8 accidents with intoxicated cyclist, of these 6 in darkness
- Collision with parked vehicles – 9 accidents
- Insufficient comprehensibility of the road – 8 accidents

Main findings

- Important with focus on road design for cyclists
- Also, in relation to roadworks (rerouting and placing of signs)
- Conditions and road design when its dark

- Influence of alcohol and/or drugs a factor in 8 accidents
- Wearing a helmet is good
- Inattention or lack of orientation lead to accidents. Hence, focus on the road is always important

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Further information (in Danish)

- DUS yearly reports on [Trafiksikkerhed og ulykkesstatistik | Vejdirektoratet](#)