



# Long-term consequence of injury on self-rated health

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## Background

Knowledge on long-term consequences of injury on health is vital when injury prevention policies and emergency care are planned.

However, few studies have described health consequence associated with injury during many years.

This study analyses the relationship between injury and self-assessed health 10 years post-injury.

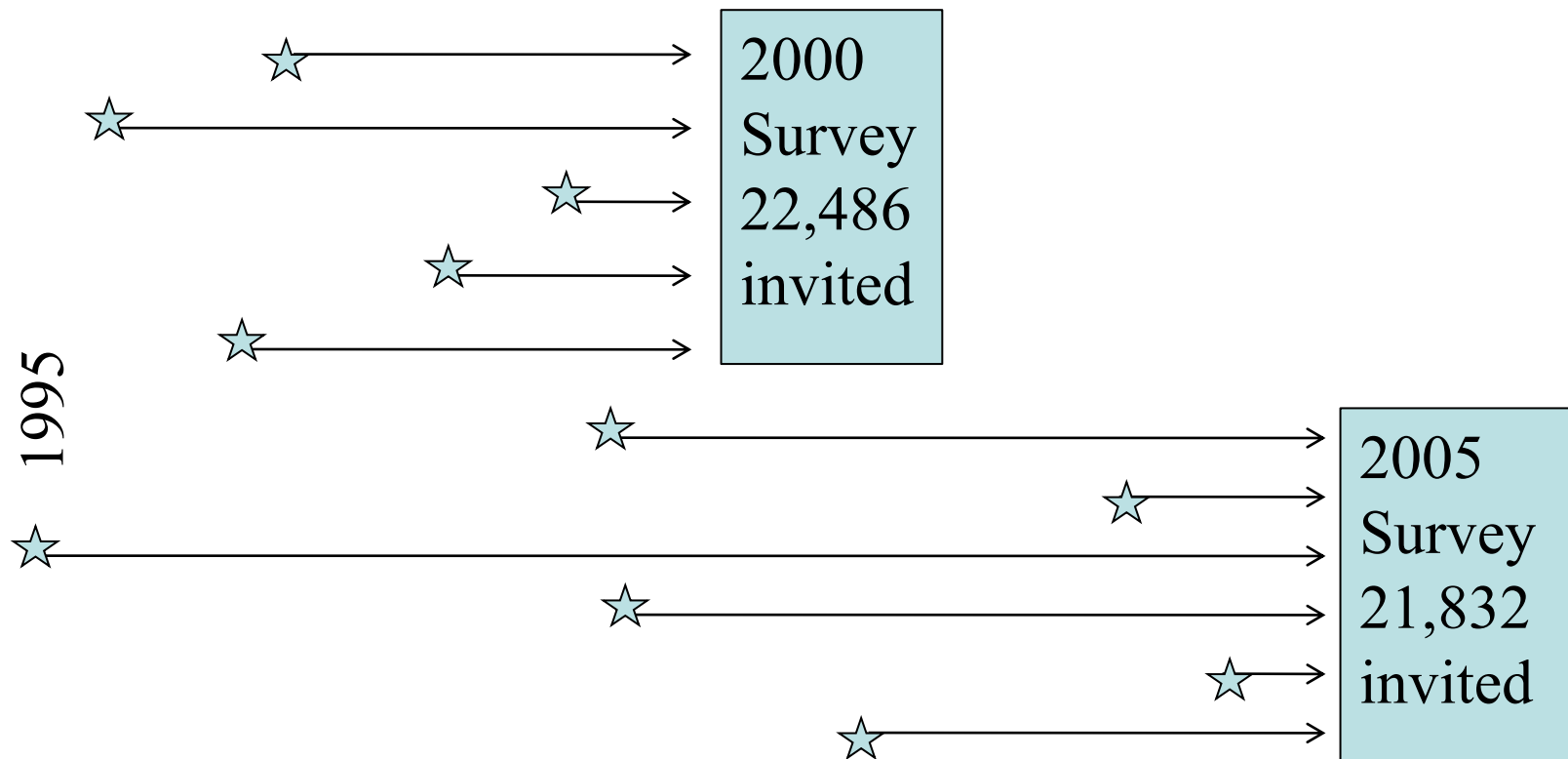
## Objective

- To quantify the relationship between injury and self-assessed health up to 10 years after the injury
- To determine whether the relationship between injury and health depends on gender, educational level, and injury type

## Methods

- Data linkage between Health Interview Survey data (year 2000 and 2005), hospital registers, and population data (education)
- Persons aged 16-64 years who participated in interviews were included (n=22,414)
- For these, earlier unintentional injuries were found in hospital data 1995-2005
- Head injuries, neck injuries, back injuries, bone fractures, and inpatients with other injury diagnoses were included
- Self-rated health and self-reported depression were used as outcome measure
- Injury, injury type, time since injury and injury setting were used as explanatory variables
- Covariates: gender, age, education, chronic illness, interview year

## The cohort design (injured)



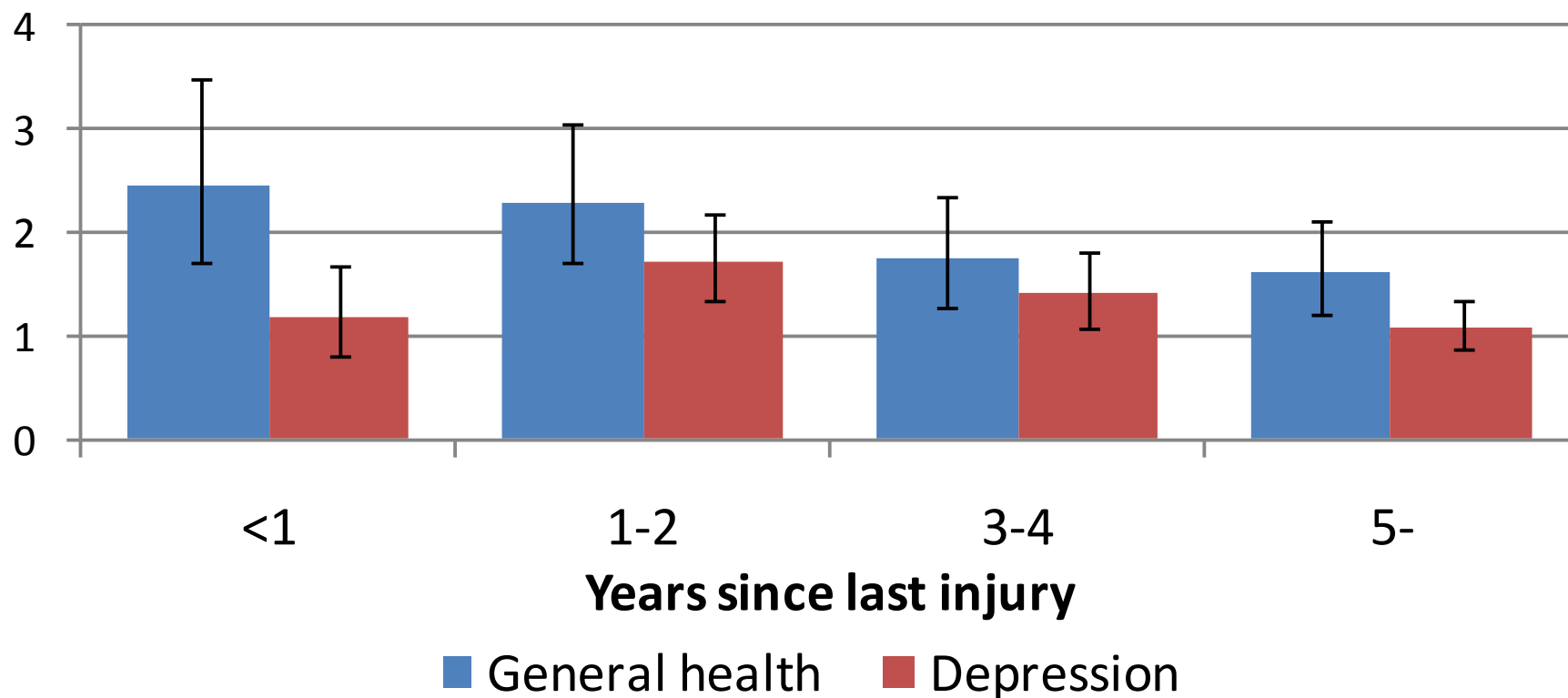
## Results – population data

	Injured (incl. <1y)	Not injured
All	2,965	19,449
Men	1,665	9,451
Women	1,300	9,998
Poor or very poor health	221	863
Depression	274	1,326

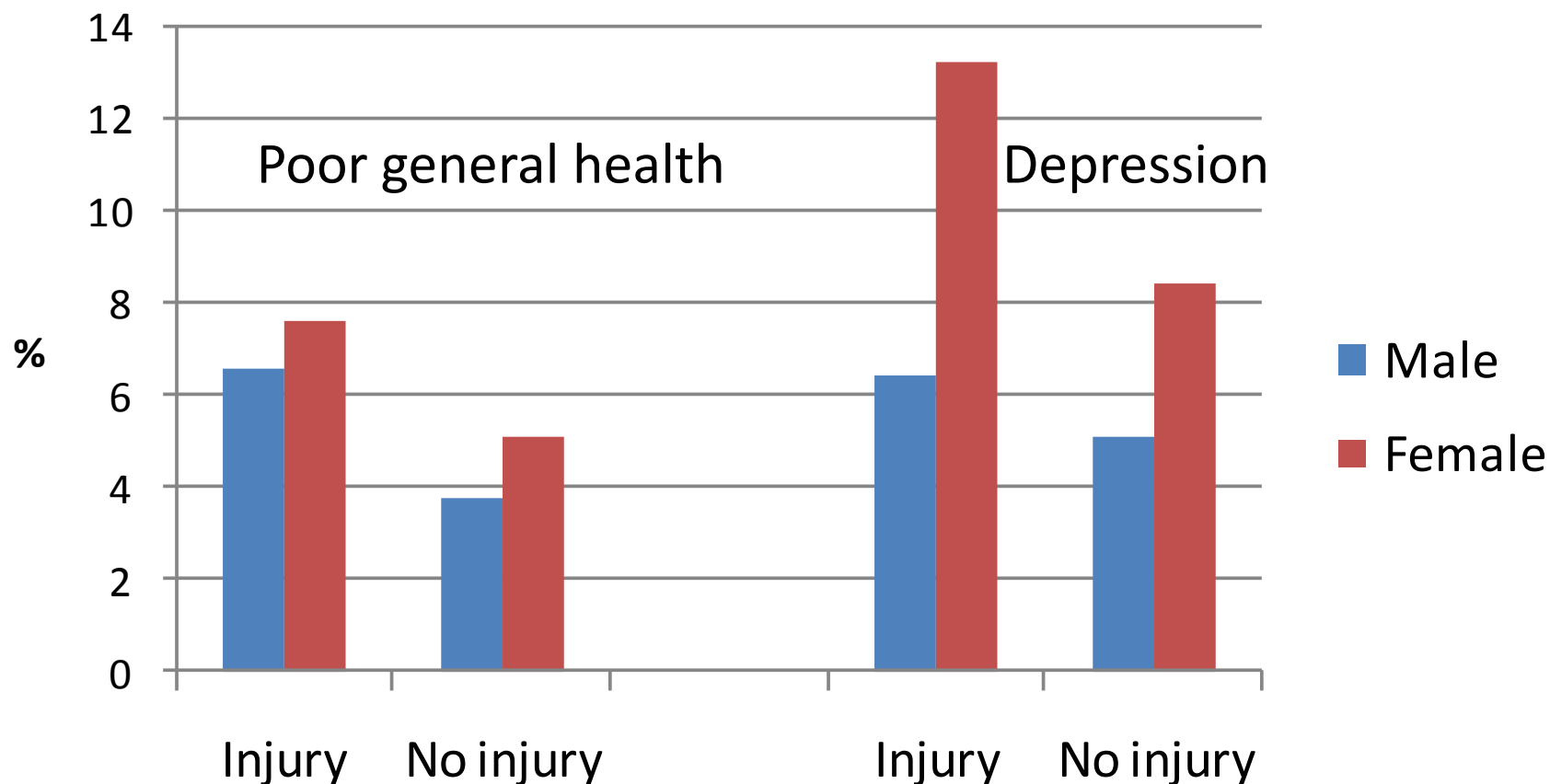
## Injury types

		Number	Percent
Type of injury	Head injury	327	11.0
	Neck injury	268	9.0
	Back injury	84	2.8
	Bone fractures	1,911	64.5
	Other, inpatients	375	12.7
Setting	Work related	317	10.7
	Home or leisure	2,142	72.2
	Traffic	506	17.1

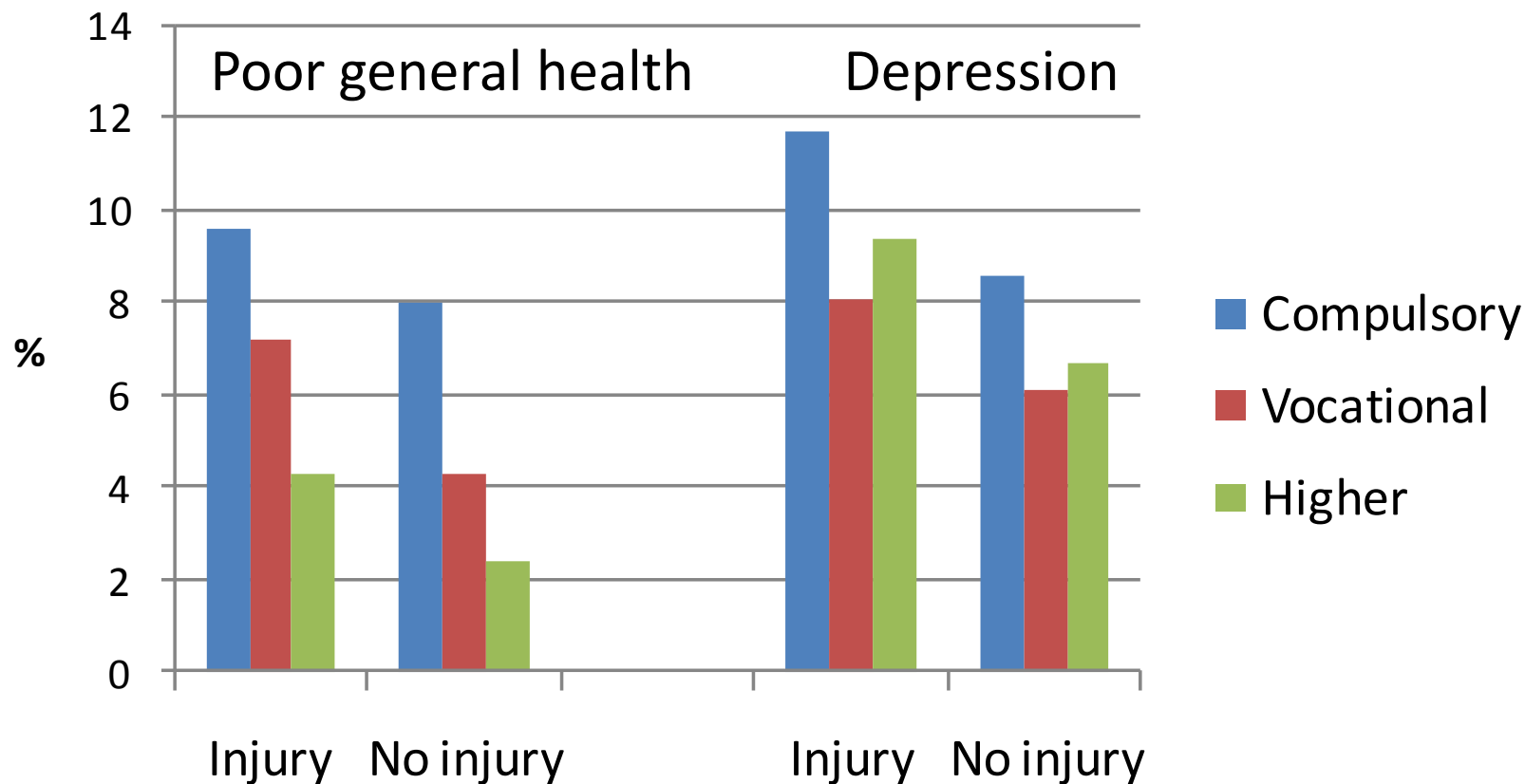
## Odds ratio for poor health and depression



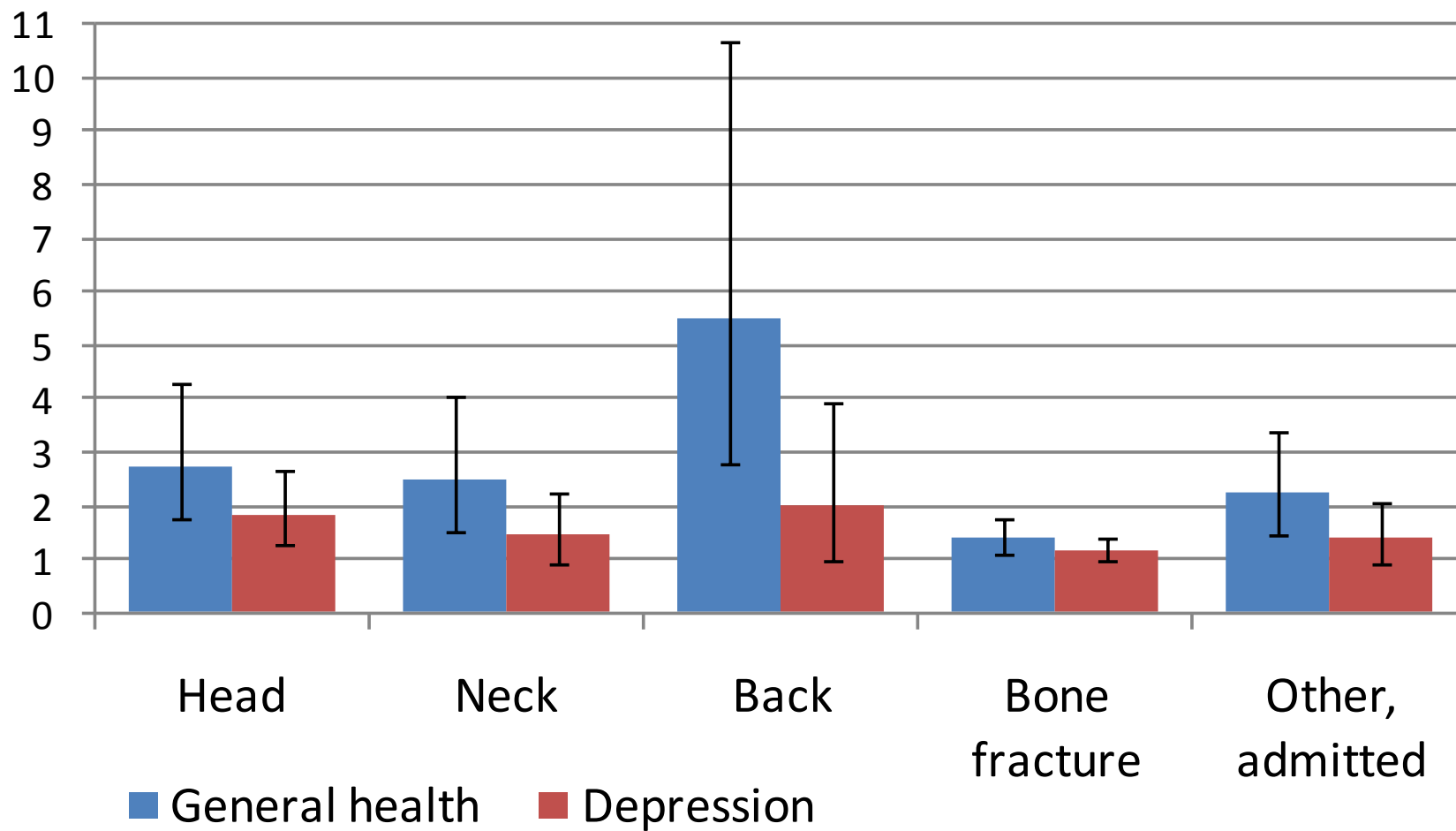
## Prevalence of poor health by gender and injury



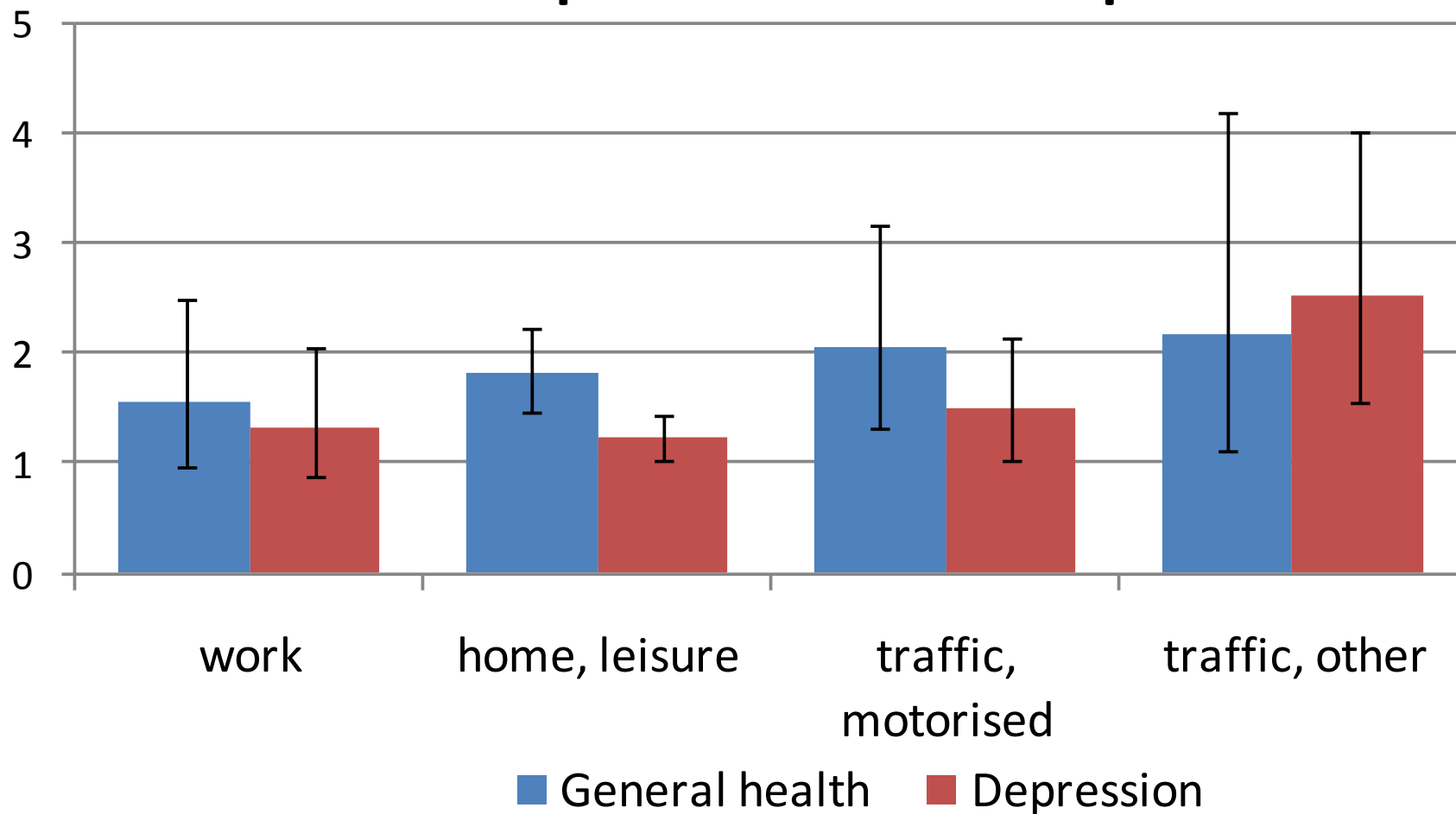
## Prevalence of poor health by education and injury



## Odds ratio for poor health and depression



## Odds ratio for poor health and depression



## Discussion

- Injury categories are wide, including different severity levels
- Effect of injuries may be underestimated due to non-responders
- The retrospective cohort design excludes dropouts due to death or emigration
- Only self-rated health was assessed
- Comorbidity and old injuries may be confounders
- Effect of hospital treatment was not studied

## Conclusions

The effect of injuries on general health declined during time, but was present still after 5-10 years

Gender and education had no influence on the effect of injury on general health, however women had more depression due to injuries

Traffic injuries increased the frequency of depression, in particular among non-motorised

Toft AMH, Møller, H Laursen B:

The years after an injury: long-term consequences of injury on self-rated health.

The Journal of Trauma 69:26-30 (2010)

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**Thank you for your attention!**

## Injuries included

Head injuries (ICD-10: S02, S04, S06, S07, S08)

Neck injuries (ICD-10: S12-S17)

Back injuries (ICD-10: S22.0, S22.1, S23.0, S23.1, S23.3, S24, S32-S34, T08, T09)

Bone fractures (ICD-10: S42, S52, S62, S72, S82, S92, T10, T12)

Other inpatients with injuries (ICD-10: S00-T75)

## Prevalence of self-reported health problems the last 14 days

