



# UCL

## Deprivation and Road Traffic Injury Comparisons for 4-10 and 11-15 Year-Olds



Dr Sarah E. O'Toole & Prof. Nicola Christie  
Centre for Transport Studies, UCL



# Introduction

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- Children represent a vulnerable group on the roads – especially in deprived areas.
- Limited research has explored road traffic injury risk across:
  - Different stages of childhood
  - Different modes of transport
  - Different exposure levels
- **Aim:** compare the number of 4–10 year-olds and 11–15 year-olds KSI in road traffic collisions as pedestrians, cyclists and car occupants during 2016 in England

# Study

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## **Road Casualties**

- STATS 19 – police reported data on road casualties in Great Britain (2016)
- Casualty data was obtained for 4-10 and 11-15 year-old males and females
- KSI as pedestrians, car occupants, or cyclists

## **Deprivation**

- Index of Multiple Deprivation
- Postcode of place of residence of casualty
- Quintiles of deprivation

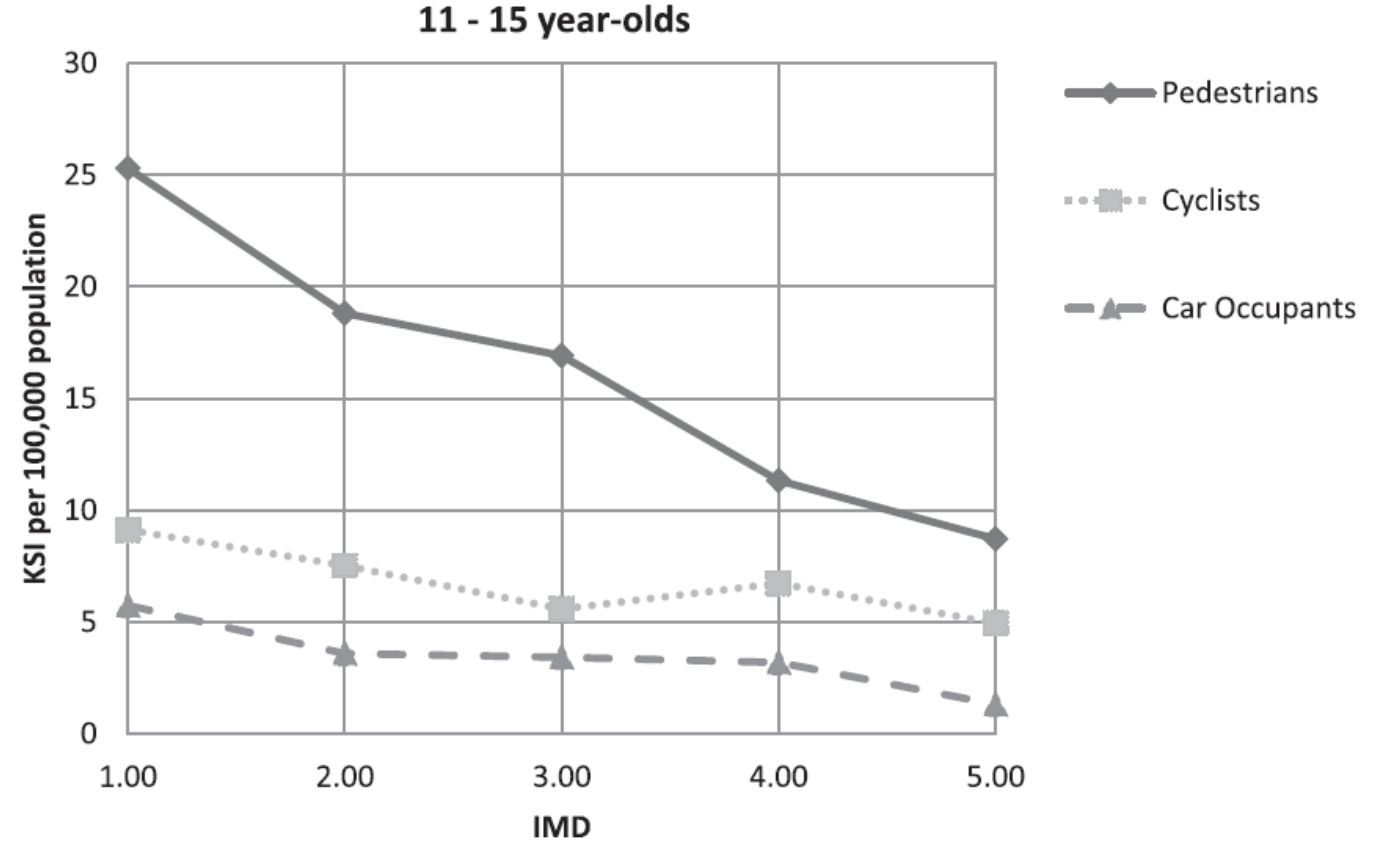
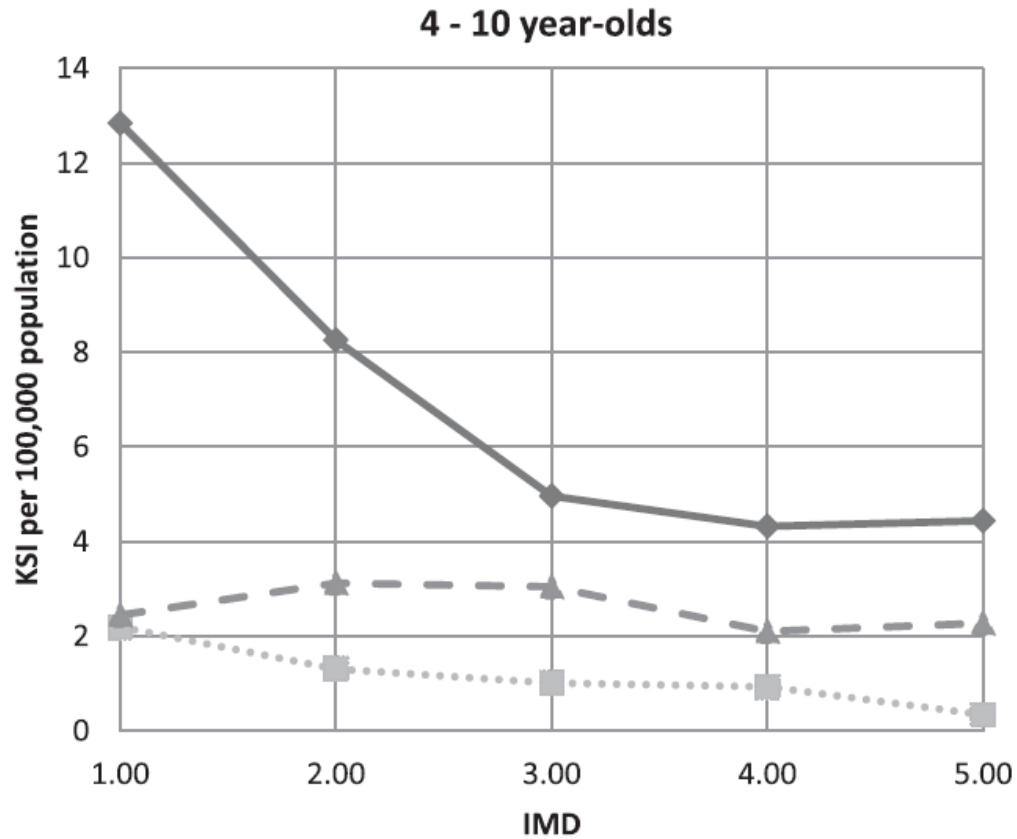
## **Population**

- ONS Deaths and Population – England and Wales

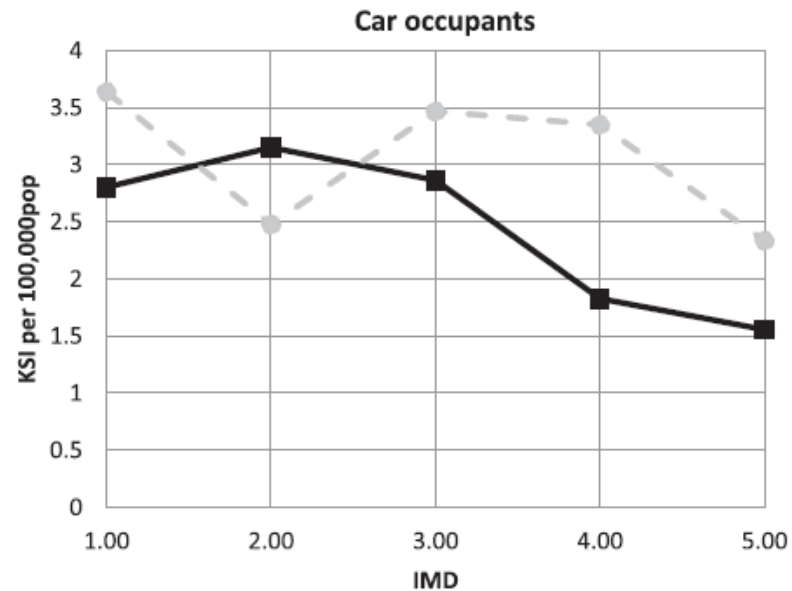
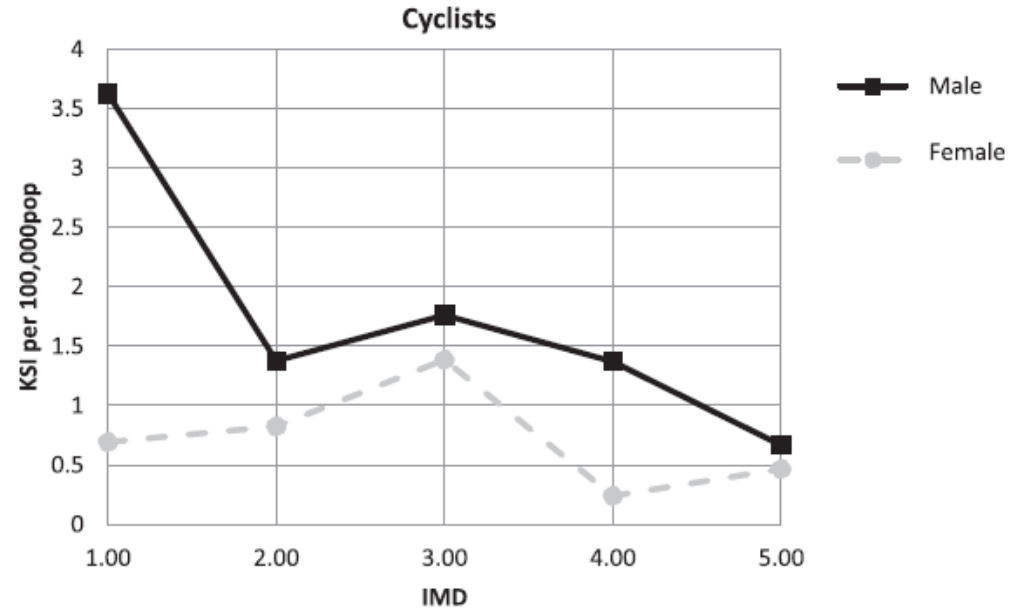
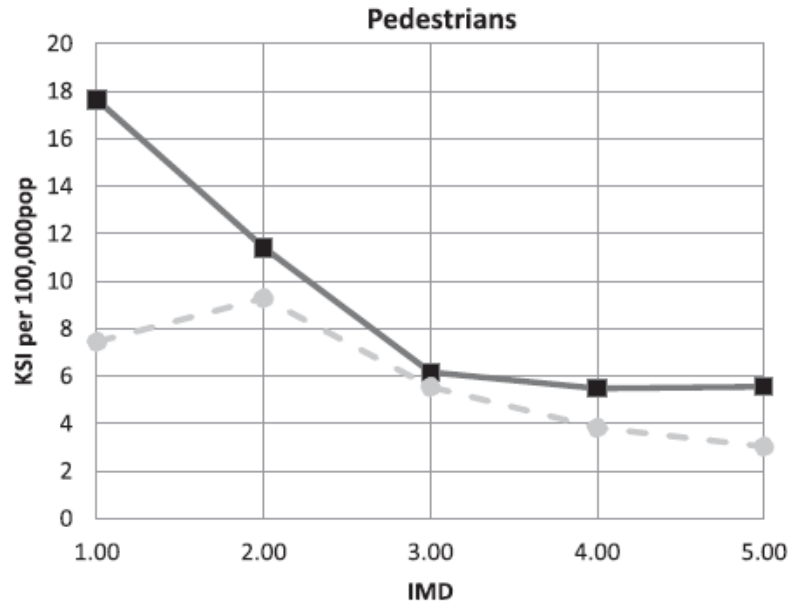
## **Exposure**

- National Travel Survey (DfT)
- Average miles travelled per year (2014-2016)

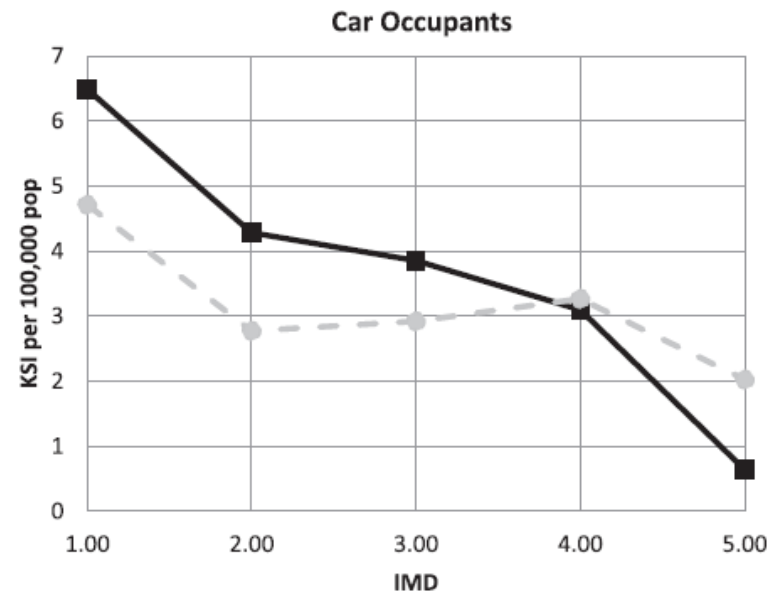
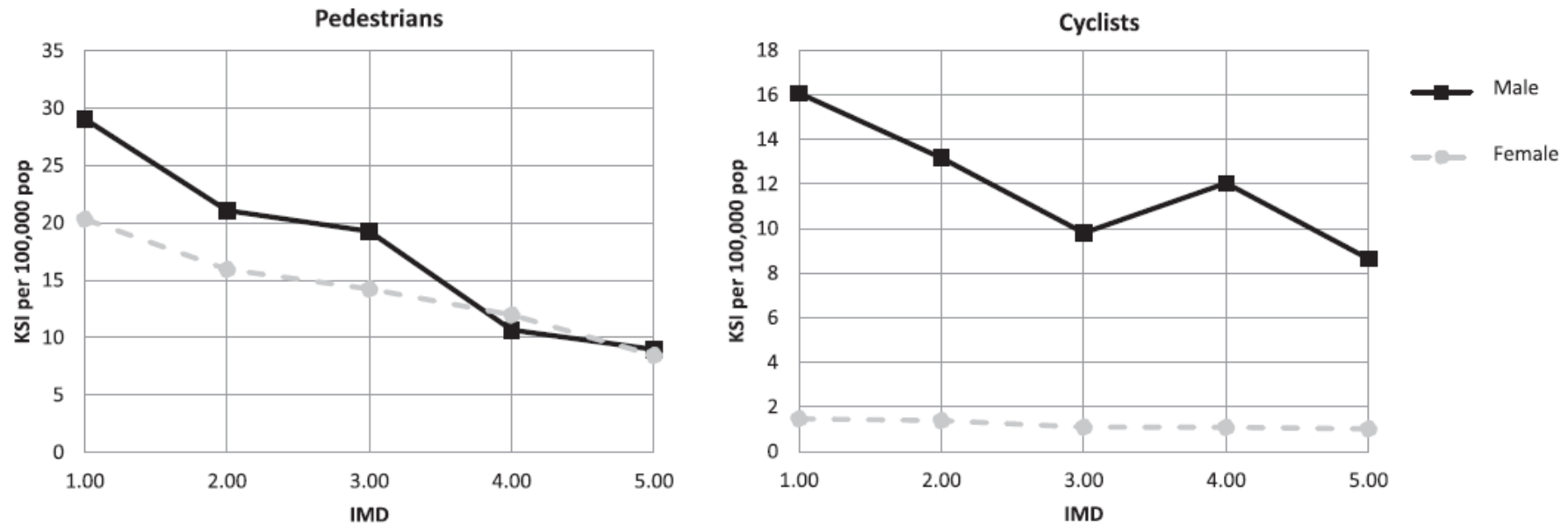
# Deprivation and Mode of Transport



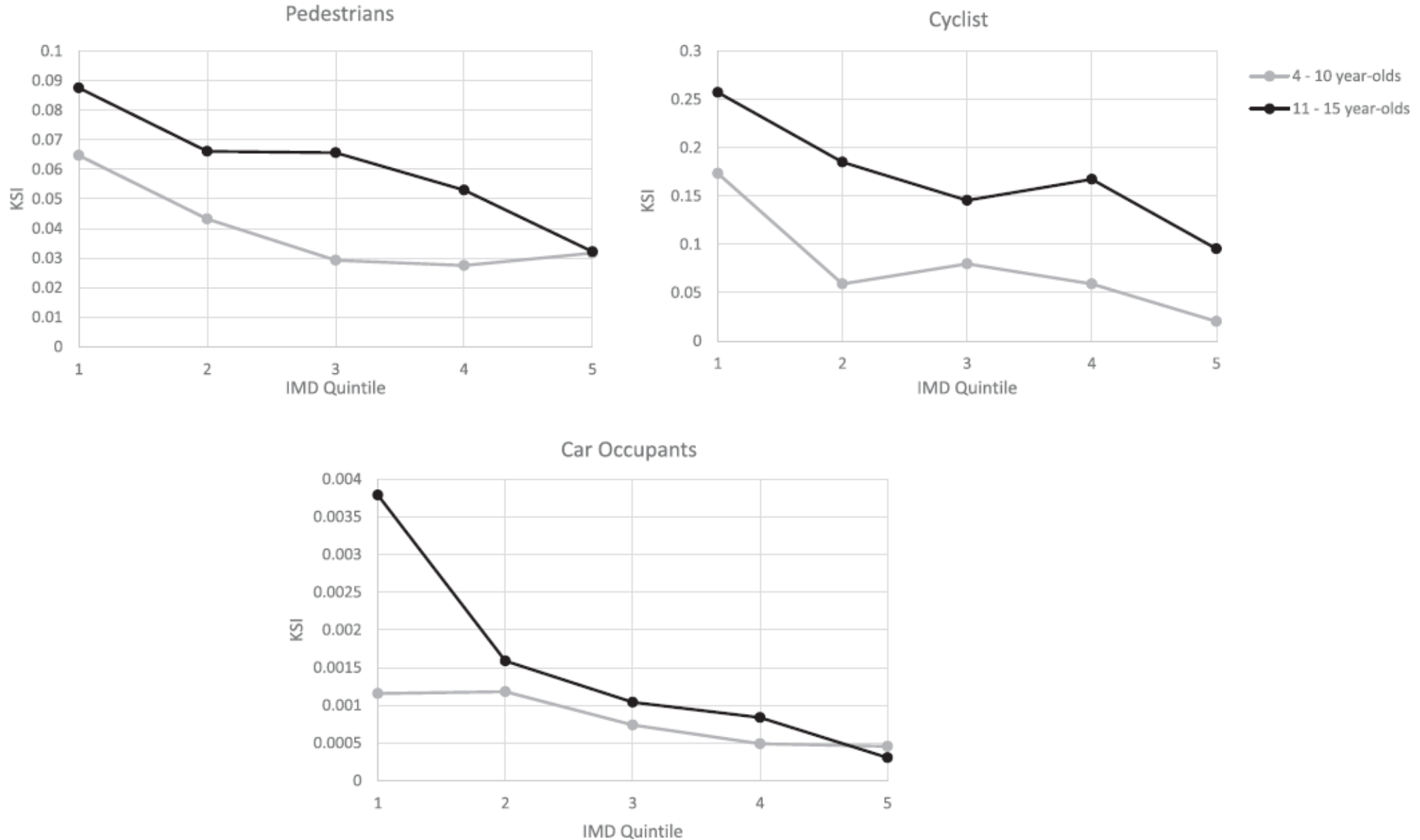
# Deprivation and Gender (4-10y)



# Deprivation and Gender (11-15y)



# Deprivation and Exposure



# Conclusions

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- Although reduced from earlier estimates (Townsend & Davidson, 1982), the social inequality in road traffic injury remains.
- The most vulnerable group was pedestrians – most deprived areas **3x** greater risk across childhood.
- Risk of injury greater for 4-10 year-old cyclists when exposure taken into account.
- Risk of injury greater for 11-15 year-olds as car occupants.
- Males residing in the most deprived areas were most vulnerable.
- Need for interventions targeting the most vulnerable.