

Linking police collision data and hospital trauma patient data. Enabling comparison of culpable drivers from serious injury non-fatal collisions with those who cause fatal injuries.

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James Nunn



# Background

There had been steady decline in fatal casualties until 2010. Since then the numbers have plateaued.



Fatalities. Reported road casualties in Great Britain: 2017 annual report, Department for Transport, 2018



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# Background

The number of casualties with serious injuries has also stopped declining.

New methods of intervention or how to apply interventions may be required to induce a new downwards trend.



Serious injuries. Reported road casualties in Great Britain: 2017 annual report, Department for Transport, 2018





 Identification of the people causing serious (MAIS3+) injuries in road traffic collisions.

(AIS - Abbreviated Injury Scale, MAIS – Maximum AIS for a casualty. International system of trauma grading administered by the Association for the Advancement of Automotive Medicine)





# **Study 1 Project objective**

- Link police collision data and hospital trauma patient data.
- Identify the serious injury (MAIS3+) subset.
- Identify all motor vehicle drivers involved in serious injury (MAIS3+) collisions.



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## **Methods - Data Sets for Linking**



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## **Methods and Results - Data Linking**



## **Study 2 Project objective**

- Undertake culpability scoring on the motor vehicle drivers from the serious injury (MAIS3+) subset.
- Identify all culpable motor vehicle drivers involved in serious injury (MAIS3+) collisions.





# Methods and Results – Culpability Scoring

STATS19 full collision data

Map STATS19 data to Robertson and Drummer (1994) criteria

Robertson and Drummer (1994) culpability scoring tool

Apply scoring tool criteria to STATS19 data for validated matches to score individual motor vehicle drivers

### **Results**

263 (63.2%) culpable drivers

31 (7.5%) contributory drivers

118 (28.4%) non-culpable drivers

4 (1.0%) could not be scored

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Culpability score using alternative tool (Brubacher, Chan and Asbridge (2012) for comparison

Culpability score motor vehicle drivers from fatal collisions for comparison

Study 3: Geodemographic profile the culpable drivers from MAIS3+ collisions using their home post codes. Target interventions.





## **Any Questions**

## Email: J.Nunn@lboro.ac.uk

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Co-authors

- Jo Barnes, Andrew Morris, Emily Petherick. Loughborough University, Epinal Way, Loughborough, LE11 3TU, UK
- Roderick Mackenzie. Cambridge University Hospitals, Addenbrookes Hospital, Hills Road, Cambridge, CB2
  0QQ, UK. <u>Roderick.mackenzie@addenbrookes.nhs.uk</u>
- Matt Staton. Cambridgeshire County Council, Shire Hall, Castle Hill, Cambridge, CB3 0AP, UK <u>Matt.Staton@cambridgeshire.gov.uk</u>

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