

0559 **FATAL ROAD TRAFFIC INJURIES AT AGE 16–20 YEARS
AMONG 611 654 PERSONS BORN IN NORWAY
1967–1976: MULTILEVEL COHORT STUDY**

PKristensen*, TKristiansen, MRehn, HMagne Gravseth, TBjerkedal *Correspondence:*
Department of General Practice and Community Medicine, University of Oslo, PO Box
1130 Blindern, 0318 Oslo, Norway

10.1136/ip.2010.029215.559

Background Road traffic injury is a major cause of death in adolescence. The study objective was to investigate influences of individual and area factors on fatal injuries among motor vehicle occupants, 16–20 years old.

Methods All persons born in 1967–1976 in Norway were followed up in several national registries. Associations were analysed in multilevel Poisson regression.

Results Road traffic deaths (N=676) constituted a major cause of death, 621 (rate 20.4 per 100 000) were motor vehicle occupants. Boys had higher mortality than girls (adjusted rate ratio (RR) 3.34, 95% CI 2.79 to 4.01). Risk patterns of motor vehicle occupant deaths after non-collision crashes due to loss of control on the road (N=316) and collision crashes showed distinctive differences. Most striking was a strong gradient according to parental education level for boys in the non-collision category (adjusted population preventive fraction 0.83, CI 0.48 to 0.95). A similar gradient was not evident for girls or for collision crashes. Non-collision deaths were associated with residence in less central municipalities (RR 1.61, CI 1.17 to 2.20). Collision deaths were negatively associated with degree of municipal road illumination (RR of 1SD increase 0.66, CI 0.54 to 0.81).

Conclusions High mortality among male occupants and the strong socioeconomic gradient in non-collision crashes are alarming. High risk prevention strategies are worth considering. Municipal characteristics of concern were identified but had modest independent impact.