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CYCLISTS' INJURY EPIDEMIOLOGY BASED ON A ROAD TRAUMA REGISTRY

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Introduction Cycling is increasing in some cities. Bicycle injuries are often overlooked, partly because police crash data largely under-report them.

Method A road trauma registry in a French area (Rhne county, population=1.6 Million) includes both in- and outpatients, with injuries coded with the Abbreviated Injury Scale (AIS). Over 1996–2006, 14 437 people were recorded as injured (or killed) while cycling. Type of cyclists is approximately defined by crash location and age: in or out of town, or children (0–10 years old). A multivariate logistic regression is performed to quantify risk factors of injury severity.

Results Incidence peaks at 7–8 years old in females and at 12 in males; the sex-ratio (M/F) is 2.2 among injured children, 3.5 among in town injured cyclists and 5.7 among out of town. Most cyclists are injured on their own: 85% in children, 62% among in-town cyclists and 73% among out-of-town. Proportion of MAIS3+ is 4.6% in children, 7.3% among intown and 10.6% among out-of-town. Adjusted risk factors for injury severity (Max.AIS3+) are as follows: being male, aged 45 or older, not wearing a helmet, crashing in a rural place, at night, on 90 km/h roads and colliding with a motorised vehicle. MAIS1 cyclists are mostly injured at the limbs (75% of them) and at the face (27%), MAIS2 cyclists at the upper limbs (58%) and head (22%), MAIS3 at the upper limbs (58%). Finally MAIS4+ cyclists (ie, with possibly fatal injuries) are mostly injured at the head (73%) and at the thorax (24%).